



DETERMINATION OF NONSIGNIFICANCE (DNS)

TITLE OF PROPOSAL: Kent/Auburn Conveyance System Improvements Project (Phase B)

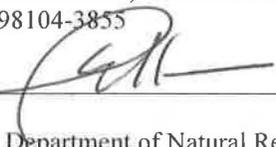
DESCRIPTION OF PROPOSAL: The King County Wastewater Treatment Division (WTD) proposes to increase the capacity of its sewer system in the Cities of Pacific, Algona, and Auburn, Washington by constructing the Kent/Auburn Conveyance System Improvements Project (Phase B). The project involves construction of two pipelines: the Pacific Pump Station (PacPS) Discharge and Auburn West Interceptor (AWI) Parallel. The project also includes construction of new above-grade piping at the PacPS from which pipe inspection and cleaning equipment will be launched (a "pig launch station"). After the project is completed, flow from the PacPS will be routed from the existing Algona-Pacific Trunk and Auburn West Valley Interceptor (AWVI) to the new AWI Parallel via the new PacPS Discharge during the wet season. The PacPS Discharge includes approximately 8,000 feet of new force main, approximately 2,400 feet of existing sewer line, and approximately 1,500 feet of new gravity pipe to carry flow north from the PacPS to the AWI Parallel. The AWI Parallel follows the alignment of the existing AWI and includes approximately 4,850 feet of new gravity pipe.

LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY: The project is located within the cities of Pacific, Algona, and Auburn, Washington (Sections 13, 24, 25, 26, and 35 of Township 21 North, Range 4 East). From King County's existing Pacific Pump Station, the new pipe alignment runs west to Frontage Road North; northeast on Frontage Road North and then along Seattle Boulevard South in Algona; east on First Avenue; north and then northeast along the east side of the Interurban Trail; east under the Union Pacific Railroad (UPRR) right-of-way to Boeing property; north along Perimeter Road to 15th Street SW in Auburn; north on private property parallel to the UPRR and Interurban Trail; north under State Route 18; west across the UPRR right-of-way and the Interurban Trail; and north to the intersection of the corridor with West Main Street in Auburn.

Responsible Official: Pam Elardo, P.E.

Position/Title: Director, King County Wastewater Treatment Division

Address: 201 South Jackson Street, MS KSC-NR-0501
Seattle, WA 98104-3855

Date: 10/26/2015 **Signature:** 

Proponent and Lead Agency: King County Department of Natural Resources and Parks
Wastewater Treatment Division

Contact Person: Hillary Schafer, Water Quality Planner
King County Wastewater Treatment Division
201 South Jackson Street, MS KSC-NR-0505
Seattle, WA 98104
phone: 206-477-5504; e-mail: Hillary.Schafer@kingcounty.gov

Issue Date: October 28, 2015

The State Environmental Policy Act (SEPA) lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

This Determination of Nonsignificance is issued under WAC 197-11-340 (2); the lead agency will not act on this proposal for 17 days from the issue date. **Comments must be submitted by November 16, 2015.** Submit comments to Katherine Fischer, Supervisor, Community Services and Environmental Planning, King County Wastewater Treatment Division, 201 South Jackson Street, MS KSC-NR-0505, Seattle, WA 98104-3855.

The King County Wastewater Treatment Division has submitted an application to the Washington State Department of Ecology for a National Pollutant Discharge Elimination System Permit, thus there is no administrative appeal of this DNS pursuant to RCW 43.21C.075, WAC 197-11-680, KCC 20.44.120 and King County Public Rule 7-4-1. The public rule may be viewed at <http://www.kingcounty.gov/operations/policies/rules/utilities/put741pr.aspx>, or contact Hillary Schafer at 206-477-5504 or hillary.schafer@kingcounty.gov to obtain a copy of the rule.

[Statutory authority: RCW 43.21C.110, 84-05-020 (Order DE 83-39), §197-11-970, filed 2/10/84, effective 4/4/84.]

ENVIRONMENTAL CHECKLIST

A. BACKGROUND

1. Name of proposed project, if applicable:

Kent/Auburn Conveyance System Improvements Project (Phase B)

2. Name of applicant:

King County Department of Natural Resources and Parks, Wastewater Treatment Division

3. Address and phone number of applicant and contact person:

King County Department of Natural Resources and Parks
Wastewater Treatment Division
201 South Jackson
Seattle, WA 98104

Contact: Hillary Schafer, Environmental Planner
Phone: (206) 477-5504
Email: Hillary.Schafer@kingcounty.gov

4. Date checklist prepared: October 15, 2015

5. Agency requesting checklist:

King County Department of Natural Resources and Parks, Wastewater Treatment Division

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

Phase A of the Kent/Auburn Conveyance System Improvements Project was completed in 2015. It involved constructing approximately 5,700 feet of new 18- and 27-inch diameter gravity sewer pipeline with the cities of Kent and Auburn.

Construction of Phase B of the Kent/Auburn Conveyance System Improvements Project, described in this document, is scheduled to begin in spring of 2016 and will last approximately three years. Construction will begin with the installation of an approximately 300-foot-long portion of the proposed new pipeline along West Main Street in Auburn. This will be completed in spring and summer of 2016 to accommodate a City of Auburn road reconstruction project. Construction of the rest of the project will begin in 2017.

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

Yes, it is anticipated that the following activities will be required in the future to accommodate projected flows:

- Modifications to the pumps, discharge header, suction of the pumps, or a combination will be required at the Pacific Pump Station in the City of Pacific.
- The existing 24-inch-diameter gravity sewer that King County acquired from Boeing will need to be upsized in the City of Auburn.

Phase B of the Kent/Auburn Conveyance Improvements Project is not dependent on these activities being completed. The activities will be reviewed under the State Environmental Policy Act at a later date.

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

- Determination of No Effect for federally listed species under the Endangered Species Act and No Adverse Effect for Essential Fish Habitat, Kent/Auburn Conveyance System Improvements Project, Herrera Environmental Consultants, 2015.
- Critical Areas Report, Kent/Auburn Conveyance System Improvements Project, Herrera Environmental Consultants, 2015.
- Cultural Resources Overview, Kent/Auburn Conveyance System Improvements, SWCA, 2015.
- Cultural Resources Monitoring and Discovery Plan for the Kent/Auburn Conveyance System Improvements Pacific Pump Station Discharge and Auburn West Interceptor Parallel, SWCA, 2015.
- Hazardous Materials Discipline Report, Terracon, 2015.
- Groundwater Modeling and Contaminant Plume Evaluation Report, Terracon, 2015.
- In-Lieu Fee Use Plan, Kent/Auburn Conveyance System Improvements Project, Herrera Environmental Consultants, 2015.

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.

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

City of Auburn

- Grading Permit
- Construction Permit
- Level 1 Storm Permit

City of Pacific

- Grade and Fill Permit
- Right-of-Way Use Permit
- Site Development (Critical Areas Approval) Permit

City of Algona

- Fill and Grading Permit
- Right-of-Way Construction Permit

King County Industrial Waste Program

- Construction Dewatering Approval

Washington Department of Fish and Wildlife

- Hydraulic Project Approval

Washington Department of Ecology

- NPDES Construction Stormwater General Permit
- Clean Water Act Section 401 Water Quality Certification

Washington Department of Transportation

- Utility Permit

Washington Department of Archaeology and Historic Preservation

- National Historic Preservation Act (NHPA) Section 106 consultation

United States Army Corps of Engineers (USACE)

- Nationwide Permit 12 (Clean Water Act (CWA) Section 404)

US Fish & Wildlife Service / National Oceanic & Atmospheric Admin. - Fisheries

- Endangered Species Act (ESA) Section 7 consultation

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

The King County Wastewater Treatment Division (WTD) proposes to increase the capacity of its sewer system in the Cities of Pacific, Algona, and Auburn, Washington by constructing the Kent/Auburn Conveyance System Improvements Project Phase B. The project involves construction of two pipelines: the Pacific Pump Station (PacPS) Discharge and Auburn West Interceptor (AWI) Parallel (see Figure 1). The diameters of these pipes will range between approximately 12 and 48 inches. The project also includes construction of new above-grade piping at the PacPS from which pipe inspection and cleaning equipment will be launched (a “pig launch station”).

All flow from the Pacific Pump station is currently conveyed to the existing Algona-Pacific Trunk and Auburn West Valley Interceptor. After the project is completed, flow from the PacPS will be routed from the existing Algona-Pacific Trunk and Auburn West Valley Interceptor (AWVI) to the new AWI Parallel via the new PacPS Discharge during the wet season. The PacPS Discharge includes approximately 8,000 feet of new force main, approximately 2,400 feet of existing sewer line, and approximately 1,500 feet of new gravity pipe to carry flow north from the PacPS to the AWI Parallel. The AWI Parallel follows the alignment of the existing AWI and includes approximately 4,850 feet of new gravity pipe.

- 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 project is located within the cities of Pacific, Algona, and Auburn, Washington (Sections 13, 24, 25, 26, and 35 of Township 21 North, Range 4 East). From King County's existing Pacific Pump Station, the new pipe alignment runs west approximately 150 feet to Frontage Road North; northeast on Frontage Road North and then along Seattle Boulevard South in Algona; east on First Avenue; north and then northeast along the east side of the Interurban Trail; east under the Union Pacific Railroad (UPRR) right-of-way to Boeing property in Auburn; north along Perimeter Road to 15th Street SW in Auburn; north through private properties parallel to the UPRR and Interurban Trail; north under State Route (SR) 18; west across the UPRR right-of-way and the Interurban Trail; and north to the intersection of the corridor with West Main Street in Auburn, then west along West Main Street approximately 270 feet to the intersection of Clay Street NW (see Figure 1). The project will be constructed in right-of-way and on private property, including residential backyards.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site

(circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____

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

The steepest slopes along both alignments are less than five 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.

The AWI Parallel and PacPS Discharge alignments are located in the Duwamish Valley. The valley is mantled by a thick sequence of alluvial floodplain and deltaic deposits composed predominantly of sand, silt, and gravel.

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

Based on the existing subsurface information, the risk of seismically-induced liquefaction and settlement appears to be moderate to high along the AWI Parallel and PacPS Discharge alignment. The potential for compressible soils, such as peat, appears to be moderate to high along the AWI Parallel and PacPS Discharge alignment. Measures may be included, such as monitoring, to reduce the risk of settlement during construction.

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.

Project Summary

For the entire project, approximately 44,400 cubic yards of material will be excavated and approximately 41,100 cubic yards of material will be backfilled. Backfill will consist of approximately 39,100 cubic yards of imported soil materials from local commercial sources; this assumes that native material will not comply with backfill specifications for reuse.

Open-cut construction methods will be used to install the pipelines for the majority of the alignment. Excavation support systems will be used to stabilize excavations and minimize potential for settlement of adjacent structures, and could consist of trench boxes or sheet piles. Trenches will be bedded and backfilled following placement of the new pipelines. Trenchless construction methods, which may include pipe ramming or jacked casing, will be used to install the pipelines under the UPRR right-of-way (two crossings), the Washington Department of Transportation (WSDOT) SR 18 crossing, and one stream crossing.

The source of aggregate fill materials will be local quarries to be determined by the Contractor. The source of topsoil will be from a local topsoil provider.

PacPS Discharge

A total of approximately 27,400 cubic yards of soil will be excavated, and a total of approximately 26,100 cubic yards of material will be backfilled during construction of the PacPS Discharge. The area of filling and excavation is approximately 1.1 acres.

An approximately 90-foot-long section of the PacPS Discharge will be constructed by trenchless construction methods to cross under the UPRR right-of-way. This construction method will require excavation of launch and receiving shafts adjacent to the UPRR crossing. The launch shaft will be approximately 40 feet by 20 feet in size, and the receiving shaft will be approximately 20 feet by 20 feet in size. Both shafts will be approximately 12 feet deep. Excavation support systems for the shafts will be designed by the contractor prior to construction.

An approximately 50-foot long section of the PacPS Discharge will be constructed using trenchless construction methods to cross under Stream A, just north of the Pacific Pump Station. The launch shaft will be approximately 40 feet by 15 feet by 12 feet deep, and the receiving shaft will be approximately 10 feet by 15 feet by 12 feet deep.

AWI Parallel

Approximately 17,000 cubic yards of soil will be excavated, and approximately 15,000 cubic yards of material will be backfilled during construction of the AWI Parallel. The area of filling is approximately 0.7 acres, area of excavation is approximately 0.7 acres, and area of grading is approximately 1.7 acres.

Two sections of the AWI Parallel, approximately 250 feet long and 265 feet long, will be constructed by trenchless construction methods to cross under the UPRR right-of-way and Washington Department of Transportation (WSDOT) SR 18, respectively. This construction method will require excavation of launch and receiving shafts adjacent to the UPRR and SR 18 crossings. For the SR 18 crossing, the launch shaft will be approximately 40 feet by 20 feet in size, and the receiving shaft will be approximately 20 feet by 20 feet in size. Both shafts will be

approximately 18 feet deep. For the UPRR crossing, the launch shaft will be approximately 40 feet by 20 feet in size, and the receiving shaft will be approximately 20 feet by 20 feet in size. Both shafts will be approximately 15 feet deep.

Construction of an approximately 300-foot-long 48-inch-diameter portion of the pipeline along West Main Street in Auburn may be completed in spring and summer of 2016 to accommodate a City of Auburn road reconstruction project. This portion of the project will be constructed wholly within the road right-of-way, outside critical areas and associated buffers. The area of filling and excavation is approximately 2,600 square feet, including approximately 1,000 cubic yards of excavation.

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

Some erosion could occur during excavation and filling of trenches and stockpiling of soil during construction, but erosion control measures will be implemented to minimize this potential. See section B.1.h. below for typical Best Management Practices (BMPs) that can be utilized to minimize the potential for erosion.

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

The project will increase impervious surface adjacent to the Pacific Pump Station. A new concrete slab will be installed under the new pig launch station, new above-grade piping from which pipe inspection and cleaning equipment will be launched (replacing a gravel surface with concrete slab). The increase in impervious surface area (area of the concrete slab) is estimated to be approximately 100 square feet.

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

Appropriate erosion and sediment control measures will be installed to minimize impacts to the earth from clearing, grading, or excavation activities.

Typical BMPs that can be utilized to minimize the potential for erosion include:

- Installation of filter fabric fences around disturbed areas;
- Installation of silt traps in storm drainage inlets;
- Covering soil stockpiles and exposed soils;
- Regular street cleaning for mud and dust control;
- Regular inspection of erosion and sediment control measures;
- Restoration of disturbed areas by repaving or replanting as soon as practical after construction is completed;
- Designate personnel to inspect and maintain temporary erosion and sediment control measures;
- Use appropriate means to minimize tracking of sediment onto public roadways by construction vehicles.

Temporary erosion and sediment control measures will be identified in the project's construction plans and specifications, and will be implemented as required by permitting jurisdictions.

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.**

Operation of the project will not result in emissions to the air. Existing wastewater conveyance system facilities are not known to be a source of air quality impairments in the project area. King County utilizes odor control equipment throughout the existing wastewater system to limit nuisance emissions, and recommendations for mitigating the potential emission of odors related to the new pipelines (if needed) will be developed during project design.

Construction of the proposed pipelines may result in short term dust emissions from exposed soils and will result in fossil fuel emissions from the operation of construction equipment. A King County Greenhouse Gas Emissions worksheet is attached.

- 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:**

Dust emission impacts associated with the construction of the proposed project are not anticipated to be significant. Construction contractors will comply with regulatory requirements and implement appropriate dust control measures, as necessary. Measures to minimize dust emissions from construction may include:

- Spraying exposed soils and soil storage areas with water during dry weather periods.
- Covering exposed earthen stockpiles and loads of material being transported to and from the site.

Vehicular emissions associated with construction of the project are anticipated to be short term in nature. Measures to minimize vehicular emissions will include:

- Requiring contractors to use best available emission control technologies (e.g., mufflers).
- Maintaining all vehicles in proper working condition.
- Minimizing vehicle and equipment idling.

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.**

A total of 25 wetlands and one stream (Stream A) were identified along the project alignment (see Figure 2). The wetlands are primarily depressional wetlands in the

floodplains of the lower Green and White River valleys (i.e., Duwamish Valley). There is one riverine wetland and one riverine/depressional wetland, both of which are associated with Stream A. Stream A is a tributary to Milwaukee Ditch, which flows into the White River approximately four miles downstream of the PacPS. WTD prepared an In-Lieu Fee Use Plan (Herrera Environmental Consultants, 2015) to address and mitigate permanent and long-term temporary impacts to the wetlands. The project restoration plan for all temporary (short- and long-term) wetland and wetland buffer impacts involves restoring the areas onsite.

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.

One manhole will be constructed in a wetland resulting in a minor permanent impact area of approximately 68 square feet. Construction of new pipelines will result in temporary impacts to eight wetlands totaling approximately 71,555 square feet/1.64 acres (see Figure 2). Wetland types include palustrine forested, shrub, and emergent. Temporary impacts will result from construction access, clearing and grubbing of vegetation, staging of materials, and excavation and backfill of soils during trenching activities. After construction of pipelines, all temporary wetland impact areas will be restored to preconstruction conditions.

Construction of new pipelines will cross at least three feet beneath Stream A. Trenchless construction techniques will be used to install the pipelines beneath the channel which will avoid impacts to the channel, banks, and adjacent vegetation.

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 5,000 cubic yards of soils will be excavated from wetlands during installation of pipes and manholes affecting approximately 0.2 acres. Excavations will be backfilled with imported pipes, manholes, aggregate fill materials (pit run, controlled density fill, and pipe bedding material), native soil, and topsoil. Eighteen inches of depth of imported or native topsoil will be placed at the surface to restore wetland soil and support native plantings. Trenches and pipe launching/receiving pits will be backfilled to pre-construction ground surface elevations. The source of aggregate fill materials will be local quarries to be determined by the Contractor. The source of topsoil will be from a local topsoil provider.

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

Operation of the project will not require surface water withdrawals or diversions. See section 3.b for ground water withdrawal information.

The proposed construction may require short-term surface water withdrawals from wetlands depending on the timing of construction. Wetlands in the immediate vicinity contain seasonal surface water during late fall, winter, and early spring months. Surface water in wetlands is typically absent during late spring through the fall. It may be necessary to withdraw surface water from stormwater ponds in the immediate vicinity to reduce the volume of dewatering from trenches and pits during installation of pipelines. Surface water withdrawals will be

discharged to existing storm drain systems. Construction dewatering duration will depend on the contractor's construction schedule and sequencing, but could occur intermittently for approximately eighteen months.

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

The AWI Parallel and PacPS Discharge alignments are not located within a mapped Federal Emergency Management Agency 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.

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.

Groundwater will not be withdrawn from a well. Groundwater will be encountered during open cut excavation of the proposed sewer lines and the launching and receiving shafts associated with the trenchless crossings. Groundwater will need to be withdrawn from excavations during construction.

PacPS Discharge Dewatering Yields: King County expects that dewatering volumes may range from approximately 10 to 60 gallons per minute (gpm) for the southern portion of the PacPS Discharge alignment, and dewatering volumes may range from approximately 100 to 300 gpm for the northern portion of the PacPS Discharge alignment. Construction dewatering duration will depend on the contractor's construction schedule and sequencing, but may occur intermittently for approximately eighteen months during pipeline construction.

AWI Parallel Dewatering Yields: Estimated dewatering flow rates will range from approximately 60 gpm during the initial drawdown, to a low of approximately 10 gmp near the end of dewatering. Construction dewatering duration will depend on the contractor's construction schedule and sequencing, but may occur intermittently for approximately one year during pipeline construction.

Dewatering volumes will be discharged to either the King County sewer system or existing storm drainage systems in the cities of Auburn, Algona, or Pacific. Turbid groundwater will be treated prior to discharge.

No groundwater withdrawals will occur once construction has been completed.

- 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.**

No waste materials are anticipated to enter the ground during construction or operation of the proposed project. Small spills or leaks of motor oil, diesel fuel, or hydraulic fluid may occur during construction. See item B.3.d. below for measures to avoid and minimize potential for these materials to be discharged to the ground.

c. Water runoff (including stormwater):

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

The main source of runoff during and after construction of the proposed project will be rainfall. During construction, stormwater will be routed through temporary erosion and sedimentation control facilities for proper discharge to the existing King County sewer system or storm drainage systems in the cities of Auburn, Algona, or Pacific.

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

No waste materials are anticipated to enter ground or surface waters during construction or operation of the proposed project. BMPs will be implemented to avoid and minimize releases of turbid water and spills from equipment.

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

The project will temporarily affect drainage ways occurring within wetlands during trenching and construction access activities. Existing drainages will be restored to pre-construction conditions after pipeline installation. The project will have no permanent effects on existing drainage patterns.

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

Section B.1.h. discusses typical BMPs that will be used during construction to control erosion and sedimentation resulting from stormwater runoff. A stormwater pollution prevention plan (SWPPP) will be prepared by the contractor for this project. Additional construction BMPs that can be implemented to prevent the introduction of contaminants into surface water or groundwater during construction include:

- maintaining spill containment and clean up materials in areas where equipment fueling is conducted;
- refueling construction equipment and vehicles away from surface waters whenever practicable;

- containing equipment and vehicle wash water associated with construction and preventing it from draining into surface waters;
- storing fuels and other potential contaminants away from excavation sites and surface waters in secured containment areas;
- conducting regular inspections, maintenance and repairs on fuel hoses, hydraulically operated equipment, lubrication equipment, and chemical/petroleum storage containers; and
- establishing a communication protocol for the unlikely event of a spill.

4. Plants

a. Check the types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

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

Vegetation will be removed along the proposed pipe alignment to install the sewer pipelines and provide adjacent construction access. Tree species that will be removed include Russian hawthorne (*Crataegus ambigua*), black cottonwood (*Populus balsamifera*), Pacific willow (*Salix lucida*), Scouler's willow (*Salix scouleriana*), and shore pine (*Pinus contorta*). Typical shrubs that will be removed include Himalayan blackberry (*Rubus armeniacus*), Douglas spirea (*Spiraea douglasii*), sitka willow (*Salix sitchensis*), and rhododendron (*Rhododendron* spp.). Typical herbaceous and emergent species that will be removed include Japanese knotweed (*Fallopia japonica*), reed canarygrass (*Phalaris arundinacea*), velvetgrass (*Holcus lanatus*), reedtop bentgrass (*Agrostis gigantea*), stinging nettle (*Urtica dioica*), Kentucky bluegrass (*Poa pratensis*), buttercup (*Ranunculus repens*), clover (*Trifolium repens*), American brooklime (*Veronica americana*), water pepper (*Persicaria hydropiper*), and broad-leaved everlasting pea (*Lathyrus latifolia*). Approximately six acres of vegetation will be cleared, including mowed yards and landscape plantings on private property and in right-of-way, for the trenching and adjacent construction access.

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

A search of the Washington Department of Natural Resources (WDNR) Natural Heritage Program database was conducted for listed plant species in the project area. No sensitive plant species or rare ecosystems are known to occur within a one mile radius of the proposed site.

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

All temporary wetland and wetland buffer impact areas will be restored post project using native vegetation. After soils are prepared, impact areas will be seeded with native seed mixes consisting of grass and rush species. Live stakes and potted plants including shrubs and trees will be installed in support of restoring scrub-shrub wetland, forested wetland, upland shrub, and upland forest vegetation communities. Vegetation disturbed during construction will be replaced with similar vegetation following completion of construction.

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

Examples of dominant noxious weeds and invasive species along the project alignments include: Himalayan blackberry (*Rubus armeniacus*), Japanese knotweed (*Fallopia japonica*), and reed canarygrass (*Phalaris arundinacea*).

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:

birds: , , eagle, , other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other:

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

No threatened or endangered species or associated habitat areas have been documented in the immediate vicinity of the AWI Parallel alignment. The PacPS Discharge alignment will cross Stream A immediately north of the PacPS. No listed species have been observed in Stream A; however, habitat-based modeling performed by WDFW indicates Puget Sound Chinook salmon (*Oncorhynchus tshawytscha*) and Puget Sound steelhead (*O. mykiss*) could occur in the stream.

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

The project site is located within the Pacific Flyway which is a flight corridor for migrating waterfowl and other avian fauna. The Pacific Flyway extends from Alaska south to Mexico and South America.

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

Trenchless construction will be used to install the new pipeline beneath Stream A to avoid impacts to surface water and wildlife. The following conservation measures will be implemented to avoid and minimize impacts associated with that installation:

- Work will occur when fish are least likely to occur. The anticipated work window is between July 15 and August 15 based on WDFW guidance for the White River.
- A Temporary Erosion and Sediment Control plan will be implemented during construction to reduce the potential for erosion and sedimentation.

- A Spill prevention plan will be implemented to prevent spills.

The project will enhance wildlife habitat by leaving trees cleared during construction within wetlands and buffers. Coarse woody debris provides habitat structure. As the wood decays they become colonized by fungi and insects that provide food for other animals. To increase habitat functions for invertebrates, fish, amphibians, birds, and small mammals, invasive plant species will be removed in construction areas and replanted with a diversity of native plant species that provide food, cover, and nesting material.

e. List any invasive animal species known to be on or near the site.

None.

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.

Not applicable.

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:

None proposed.

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.

Potential soil and groundwater contamination is present in the vicinity of the AWI Parallel and PacPS Discharge alignments and could be encountered during construction activities such as excavation and dewatering. See section 7.a.1) below for information on the types of contamination that may be encountered during construction.

Construction dewatering will be required along most of the alignment to temporarily lower groundwater levels to allow pipeline construction. The proposed pipeline alignment lies in proximity to, and in some areas transects, areas of known or suspected adversely-affected groundwater.

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

Benzo(a)pyrene was detected in shallow soils in the City of Auburn Main Street right-of-way. The source of the exceedance is unknown but could be attributed to a nearby former bulk fuel facility or to fill placed for construction of the right-of-way.

The Puget Sound Energy (PSE) Corridor (Interurban Trail), which is located along portions of the AWI Parallel and PacPS Discharge alignments, was constructed on rail lines formerly used by electric streetcars that operated from the early 1900s to the late 1930s as part of the greater Seattle public transportation system. Although no direct evidence of environmental issues related to these rail lines have been identified during the course of this preliminary research, incidents such as unauthorized dumping, spills, and releases related to day-to-day railway operations, train maintenance, or mechanical failures could have occurred on or around the existing trail during its historical use for electric rail lines. Creosote-treated railroad ties may also be buried on or adjacent to the trail.

Several other potential sources of soil and groundwater contamination are present in the project area. Residual pesticides have been identified throughout the project area and are associated with the historical spraying of fields/orchards east and west of the existing Interurban Trail and elsewhere along the alignment. Soil and groundwater contamination may also be associated with petroleum hydrocarbons and/or arsenic in several locations along the alignments.

Two historical fuel service stations were located along the south side of 1st Avenue South at Milwaukee Avenue South, adjacent to the alignment. Although limited groundwater sampling did not show adverse impacts from these facilities, the possibility remains that subsurface conditions elsewhere along the alignment near the two properties could potentially be impacted by petroleum-related compounds.

The groundwater flowing away from the Boeing Fabrication Auburn site (Boeing Auburn) is contaminated with volatile organic compounds (VOCs). The contaminated groundwater plume extends generally northwest from the Boeing Auburn facility for a considerable distance. The nature and extent of the contaminated groundwater plume has been characterized by an on-going Remedial Investigation being conducted by Boeing with oversight by the Washington State Department of Ecology.

Soil and groundwater may also be contaminated at other areas containing metals, volatile organic compounds, semi-volatiles, and petroleum hydrocarbons. Localized contamination at the Boeing Auburn facility has been discovered during operations such as underground storage tank removals, building renovations, and construction.

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.

Construction dewatering will locally lower the groundwater level in the immediate construction area for a short duration. In the immediate vicinity of dewatering, groundwater flow directions can be altered as the groundwater moves towards and is extracted by the dewatering system. The groundwater flow direction and volume of groundwater removed from dewatering can be affected by numerous factors including the depth of dewatering,

duration of temporary dewatering, and the aquifer properties. The potential impacts of the dewatering on potential contaminant plumes along the alignment and associated mitigation measures are discussed in section B.7.a.5 below.

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.

Fuel will be used for construction equipment and vehicles.

4) Describe special emergency services that might be required.

None.

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

As described in items B.1.h. and B.3.d. above, best management practices and other measures will be used to avoid or contain/control any spills or other releases of hazardous materials during project construction. Environmental due diligence has been conducted and reviewed along the project corridor to identify and address known or potential soil or groundwater contamination issues on or adjacent to the pipeline alignment that may require consideration during project design and/or construction. Identified soil or groundwater contamination issues will be addressed in the design, where appropriate, and the information provided to the construction contractor in order for the contractor to appropriately plan the work and incorporate those issues into contractor-prepared health and safety plans.

The contractor will prepare a health and safety plan as part of the contract for the proposed project. This plan will comply with all applicable health regulations and will detail measures to control environmental health hazards. Any contaminated soil encountered will be removed from the project site and properly handled and disposed.

Based on the available information on groundwater depths, required depth of dewatering, expected duration of dewatering, and the aquifer properties, groundwater modeling was conducted at the two representative locations to assess the potential impact to the contaminant plumes. These two locations were chosen as they were deemed to have the greatest potential impact from construction dewatering activities, and are also generally representative of soil and groundwater conditions at other locations along the alignment. Both groundwater dewatering models predicted modest movements of adversely-impacted groundwater toward the areas of construction as a result of the planned dewatering activities. The groundwater dewatering models indicated that dewatering appears to have a temporary, limited, localized impact on the contaminant plumes, which would rapidly return to pre-construction conditions after the cessation of dewatering. Given the limited impact to the contaminant plumes, the groundwater dewatering modeling studies concluded that specific mitigation was not warranted.

Available information was reviewed and evaluated for potential impacts to the groundwater contaminant plumes and potential for plume migration resulting from construction dewatering. Two specific areas that have known groundwater contaminant plumes were selected for groundwater modeling: 1) the vicinity of the Boeing Auburn Facility located

along the proposed Pacific Pump Station Discharge alignment, and 2) the area adjoining an ARCO gasoline station near the Pacific Pump Station Discharge alignment (the southwest corner of Ellingson Road and Frontage Road North). Both of these facilities are undergoing (or have undergone) environmental investigations and monitoring with review by the Washington Department of Ecology. The results of the groundwater modeling at these two locations are considered to be generally representative of other locations along the alignment.

The extent of the impact can be limited if the contractor schedules the work at seasonally lower groundwater levels (i.e., summer and fall) to reduce the extent and depth of construction dewatering required, and if the contractor maintains the duration of the construction dewatering system at each location to only that duration needed to complete construction. Groundwater quality monitoring of the dewatering discharge water will be conducted during construction to confirm the groundwater quality and to establish a basis for appropriate disposal of dewatering discharge

Project plans and specifications will include measures to monitor the construction and appropriately handle and dispose of known contaminated soil or groundwater. Protocols will be included to evaluate and develop measures to handle and dispose of contaminated soil or groundwater in the event any unexpected contamination is encountered during construction. The project will comply with Washington State Department of Ecology water quality standards and permit requirements.

b. Noise

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

The project is located within commercial, industrial, and residential areas. Noises that exist in the area will not affect the project.

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

Short term intermittent construction-related noise will be generated along the new sewer line alignments during construction. Construction activity is generally anticipated to occur between the hours of 7 a.m. and 5 p.m. on weekdays. Dewatering activity will occur 24 hours per day at areas of active construction (trenching/pipeline installation).

The main source of noise will be from the operation of heavy equipment during excavation and installation of excavation support systems, installation of the new sewer lines, generator used to run dewatering pumps, as well as truck traffic entering and leaving construction areas. These types of equipment typically generate noise in the range of 75-90 dBA at a distance of 50 feet. The potential use of a pile driver to install excavation support systems could range up to 95 dBA.

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

Construction activity is generally anticipated to occur between the hours of 7 a.m. and 5 p.m. on weekdays and will comply with the appropriate jurisdiction's noise regulations if work is required on weekends and holidays. Work outside of these hours will require a variance. Additional measures to reduce or control noise impacts during construction may include the following:

- Mufflers on all gas powered equipment;
- Provide electricity from the power grid and encourage the use of electric or hydraulic tools when practicable;
- Notify residents and businesses near active construction areas of upcoming noisy construction activities;
- 24-hour construction hotline to promptly respond to questions and complaints.
- Noise barriers if needed.

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.**

Major land uses along the alignments include a mixture of residential, commercial, industrial development, open space (including the Interurban Trail), and right-of-way for UPRR tracks and SR 18. There will be no permanent impacts to land uses; however, there may be short-term, temporary impacts. Trenching activity will impact private residential backyards and parking along city streets. Construction will also require temporary detours of vehicles and pedestrians on roads and trails.

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

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.

A variety of structures are located on proposed sewer line alignment sites, including commercial buildings, light industrial buildings, residential buildings and appurtenances. Measures may be included, such as monitoring, to reduce the risk of settlement during construction.

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

Structures located on residential properties in the City of Algona, including fencing, play structures, and an above-ground pool, may be temporarily impacted during construction as the result of trenching activities for pipeline installation. The surface of all impacted areas will be restored as near as possible to pre-construction conditions after completion of the project.

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

The AWI Parallel alignment will pass through the following zoning districts: public use, heavy commercial, heavy and light industrial, multifamily residential, and central business. The PacPS Discharge alignment will pass through the following zoning districts: light industrial, highway commercial, residential, and open space.

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

The current comprehensive plan designation for the PacPS Discharge alignment includes heavy industrial and commercial, and open space. The AWI Parallel alignment is designated as open space.

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

Not applicable.

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

Yes, 25 wetlands and one stream (Stream A) were identified in the project area. The wetlands are primarily depressional wetlands in the floodplains of the lower Green and White River valleys. Three wetlands and Stream A are within the City of Pacific. Nine wetlands are within the City of Algona. Thirteen wetlands are within the City of Auburn. There is one riverine wetland and one riverine/depressional wetland, both of which are associated with Stream A.

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.

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

None, the proposed project consists of underground pipelines that will not be visible following the completion of construction.

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

None.

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:

None.

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?

Not applicable.

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

In the short-term, construction will be visible to adjacent properties along the alignment. Residents may see construction equipment and related vehicles due to temporary activities in residential backyards. Views will not be altered or obstructed by the completed project.

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

None. Construction impacts will be temporary.

11. Light and glare

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

If construction occurs during fall or winter, active lighting of the construction site may be required at the beginning or end of the work day.

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:

If lighting is necessary during construction activities in the vicinity of residences, measures will be taken to minimize impacts to adjacent property owners by directing the lights away from residences.

12. Recreation

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

The new sewer alignments parallel the Interurban Trail in some locations, which extends from Pacific through Algona, Auburn, and Kent to Tukwila and is open to all non-motorized uses.

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

In the City of Algona, King County has acquired a temporary construction easement from PSE for an area just east of the Interurban Trail to provide area for the contractor's use during construction that will not impact the existing recreational use of the trail.

In the City of Auburn, King County has acquired temporary construction easements from private property owners for the contractor's use during construction; therefore, it is not anticipated that the existing recreational uses of the trail will be impacted.

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

King County has acquired easement rights from private properties to minimize impacts to the Interurban Trail and its existing recreational use.

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, specifically describe.**

Potential eligible structures are located throughout the project area. Structures will be evaluated for eligibility prior to construction.

- 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.**

There are no recorded cultural resources in the new sewer alignments; however, there is potential for encountering pre-contact and historical archeological materials and human remains during construction of the new sewer alignments. SWCA Environmental Consultants completed a Cultural Resources Overview (2015) and a Cultural Resources Monitoring and Discovery Plan (2015) for the project.

- 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 project was screened for cultural resources by the King County Historic Preservation Program and a cultural resources assessment was completed by Northwest Archaeological Associates in 2007, and updated by SWCA in 2015. An archaeological monitoring plan and inadvertent discovery plan was prepared by SWCA in 2015.

- 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.**

The project will require an Army Corps of Engineers permit, and Section 106 (30 CFR 800) consultation will be completed as part of the permitting process. Any information or conditions resulting from the Section 106 consultation will be incorporated into the project design, plans, and specifications. Construction specifications will include language providing for proper treatment of historic or archaeological materials if they are encountered. Archaeological monitoring will be conducted during construction as described in the archaeological monitoring plan and inadvertent discovery plan.

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 area can be accessed from the West Valley Highway (State Route 167), Frontage Road, Ellingson Road, Seattle Boulevard, First Avenue North, Perimeter Road, 15th Street SW, and West Main Street. Construction vehicle traffic will generally access the alignment via SR 167 or SR 18.

- 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 project area is currently served by both Sound Transit and King County Metro.

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

None.

- 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).**

No new roads, or improvements to existing roads, are planned as part of this project. Restoration of road surfaces impacted by the project will occur following completion of construction.

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

The project will not use water, rail, or air transportation.

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

None.

- 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.**

No.

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

Contractors will be required to comply with a traffic control plan approved by the appropriate jurisdiction. Typical traffic control measures that could be implemented include:

- Provide detours;
- Provide flaggers;
- Maintain access to businesses and residences;
- Provide advance notice of the project through postings and other means to alert potentially-affected residences and businesses, and users of affected roadways;
- Work with residents and businesses to minimize inconvenience when construction activities affect access to their properties.
- Provide continuous access to emergency vehicles and other services during construction.

PacPS Discharge

Construction activity in the City of Pacific public right-of-way on Frontage Road will likely result in temporary lane closures and restriction of on-street parking in areas of active construction. Only limited sections of the street will be impacted as construction progresses along the alignment. During the one- to two-day period when active pipeline construction is taking place opposite businesses, access may be restricted during work hours. The contractor will be required to notify affected businesses in advance when their access may be limited and to coordinate with them to minimize impacts. Only limited sections of the street will be impacted as construction progresses along the alignment.

Construction activity in the City of Algona public right-of-way on Seattle Boulevard will likely result in road closures on a short-term basis. During the one- to two-day period when active pipeline construction is taking place opposite individual residences, access may be restricted during work hours. The contractor will be required to notify affected residents in advance when their access may be limited and to coordinate with them to minimize impacts. Construction activity in the City of Algona public right-of-way on 1st Avenue will likely result in temporary lane closures on a short-term basis. Only limited sections of the street will be impacted as construction progresses along the alignment.

AWI Parallel

Construction of the AWI Parallel alignment may have impacts to traffic along 15th Street SW, 8th Street SW, and West Main Street in Auburn.

The AWI Parallel will cross 15th St SW; therefore, it is likely that construction across this road will be completed in stages (closing one traffic lane at a time) or completed at night to avoid major traffic impacts. Access to businesses will be maintained during construction.

The AWI Parallel will cross a parking lot at the west end of 8th Street SW, thus affecting businesses in the vicinity. That portion of the parking lot in which construction is taking place will be closed off; however, access around the building will be maintained. Impacts to parking may be mitigated by providing off-site parking areas and shuttle buses.

The construction of the AWI Parallel along West Main Street will occupy one of the two lanes, and local access will be maintained during construction. If necessary, detour plans will be prepared (as part of a Traffic Control Plan) prior to construction and will be subject for approval to the affected jurisdiction (City of Auburn).

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.

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

King County is coordinating directly with the Cities of Pacific, Algona, and Auburn to minimize impacts to public services. Coordination may include providing notification to property owners and

residents about upcoming construction, and coordination with service providers such as transit, waste disposal, and postal delivery services.

16. Utilities

a. Circle utilities currently available at the site:

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

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 proposed project involves increasing capacity in the sewer system serving south King County.

Both proposed pipelines will cross a number of existing utilities, including gas, power, water, storm sewer, sanitary sewer, communication, and fiber optic. Temporary utility relocation may be necessary during construction along both proposed pipeline alignments, which may result in short-term temporary impacts to some services. Permanent relocation of an existing City of Algona water line and PSE gas line may be necessary during construction of the PacPS Discharge.

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:

Katherine Fischer

Name of signee

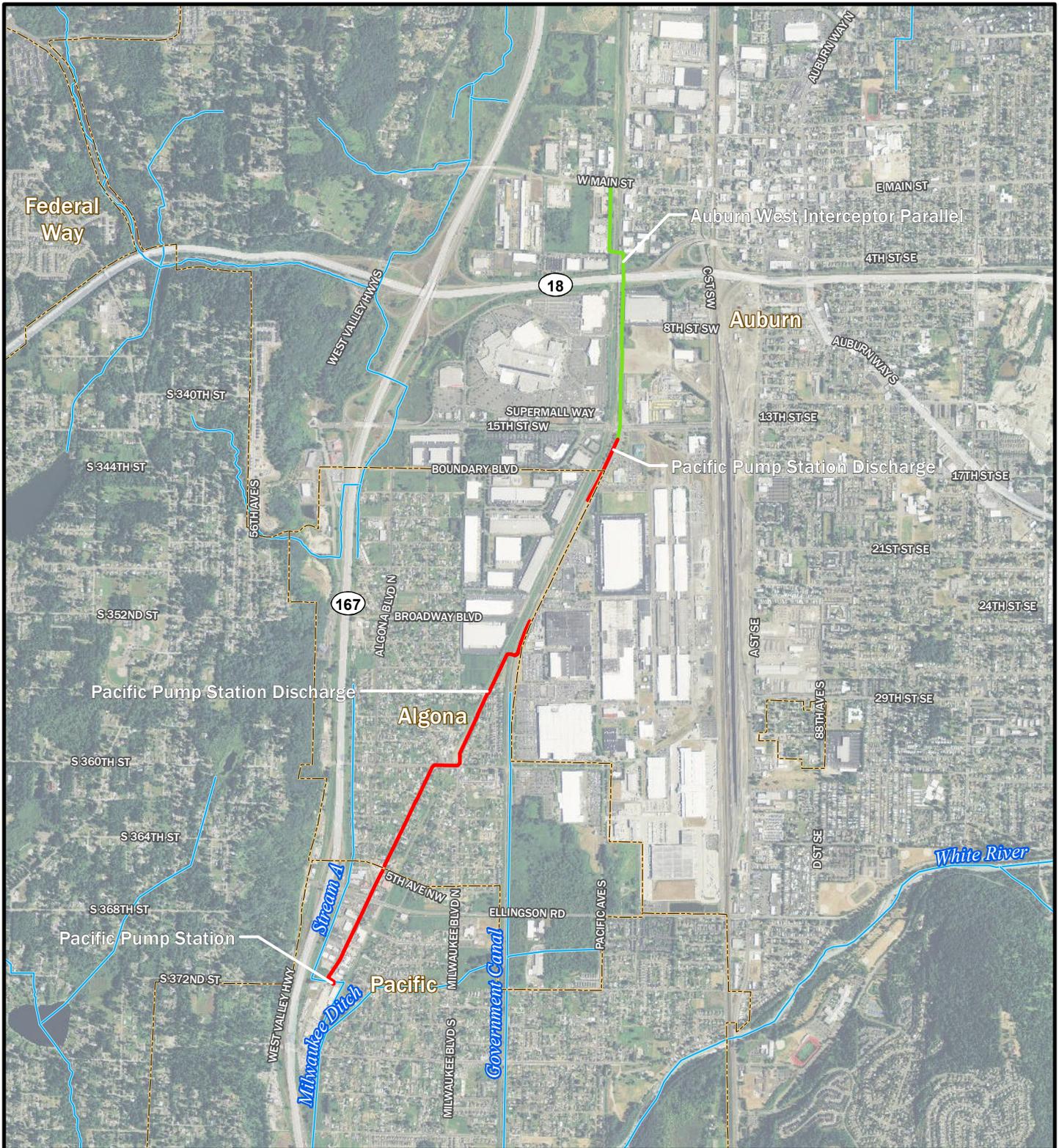
Katherine Fischer

Position and Agency/Organization

*Supervisor - King County DWRP
waste water Treatment Division*

Date Submitted:

10/22/15

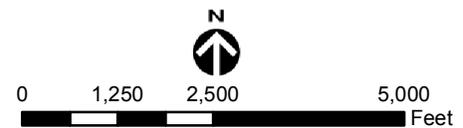


Legend

- Pacific Pump Station Discharge alignment
- Auburn West Interceptor Parallel alignment
- Creek or river
- City limit



Figure 1.
Vicinity Map for the Kent/Auburn
Conveyance System Improvements Project.



USDA, Aerial (2013); King County GIS Center (2013)

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King County Greenhouse Gas Emissions Worksheet - Kent Auburn Conveyance System Improvements Project

Section I: Buildings

Type (Residential) or Principal Activity (Commercial)	# Units	Square Feet (in thousands of square feet)	Emissions Per Unit or Per Thousand Square Feet (MTCO ₂ e)			Lifespan Emissions (MTCO ₂ e)
			Embodied	Energy	Transportation	
Single-Family Home.....	0		98	672	792	0
Multi-Family Unit in Large Building	0		33	357	766	0
Multi-Family Unit in Small Building	0		54	681	766	0
Mobile Home.....	0		41	475	709	0
Education		0.0	39	646	361	0
Food Sales		0.0	39	1,541	282	0
Food Service		0.0	39	1,994	561	0
Health Care Inpatient		0.0	39	1,938	582	0
Health Care Outpatient		0.0	39	737	571	0
Lodging		0.0	39	777	117	0
Retail (Other Than Mall).....		0.0	39	577	247	0
Office		0.0	39	723	588	0
Public Assembly		0.0	39	733	150	0
Public Order and Safety		0.0	39	899	374	0
Religious Worship		0.0	39	339	129	0
Service		0.0	39	599	266	0
Warehouse and Storage		0.0	39	352	181	0
Other		0.2	39	1,278	257	264
Vacant		0.0	39	162	47	0

Section II: Pavement.....

Pavement.....		0.00				0
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Total Project Emissions:

264

Note: The proposed project consists of installing approximately 16,000 feet of underground sanitary sewer pipeline and approximately 170 square feet of new impervious surface.