



Port of Vancouver USA

SUBMIT TO:
Port of Vancouver
3103 NW Lower River Rd.
Vancouver, WA 98660

SEPA ENVIRONMENTAL CHECKLIST		WAC 197-11-960	
Property Owner:	<u>Port of Vancouver</u> <small>(Print or Type Name)</small>	Telephone:	<u>360-693-3611</u>
Mailing Address:	<u>3103 NW Lower River Road, Vancouver, WA 98660</u> <small>(No., City, State, ZIP)</small>		
Applicant:	<u>Port of Vancouver, Matt Graves</u> <small>(Print or Type Name)</small>	Telephone:	<u>360-693-3611</u>
Mailing Address:	<u>3103 NW Lower River Road, Vancouver, WA 98660</u> <small>(No., City, State, ZIP)</small>		
Relationship to Owner:	<u>Same</u>		
Tax Assessor Serial Number(s):	<u>See Section A.12 below for project location information</u>		
Legal description:	Lot(s) <u>See Section A.12</u> Block(s) _____ Plat name _____ <small>(If a Metes and Bounds description, check here <input type="checkbox"/>, and attach narrative to this application.)</small>		
Site Address (if any):	<u>See Section A.12 below for project location information</u>		

Purpose of checklist:

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

Instructions for applicants:

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

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

Instructions for Lead Agencies:

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

Use of checklist for nonproject proposals:

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

A. BACKGROUND

1. Name of proposed project, if applicable:

Port of Vancouver Water Rights Project

2. Name of applicant:

Port of Vancouver (Port)

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

*Port of Vancouver
3103 NW Lower River Road
Vancouver, WA 98660
360-693-3611
Contact: Matt Graves*

4. Date checklist prepared:

July 2015

5. Agency requesting checklist:

Port of Vancouver

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

The project covered by this checklist is the Port's acquisition of a water right and the construction of up to 15 water wells and associated access, infrastructure and equipment to ensure an adequate supply of water for existing and future Port needs. On January 29, 2015, the Port of Vancouver filed Application G2-30649 with the Washington Department of Ecology (Ecology) for a new water right permit. Anticipated timing for approval from Ecology on the Port's water right application is anticipated to occur in 2015. The Port has requested a permit development schedule that would allow up to 50 years to construct water system infrastructure and to supply water to authorized uses.

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

There will be a need for installation of as many as 15 production water wells and associated access, infrastructure and equipment following water right approval and permitting. The general areas within which such wells, access, infrastructure and equipment may be located are listed in Section A.12 of this checklist.

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

The following documents have been prepared for this proposal and are incorporated by reference:

- *Application for a Water Right Permit, filed with Ecology on 1-29-15*
- *Port of Vancouver Water Right Application G2-30649 Phase I Report, Pacific Groundwater Group, March 24, 2015, hereafter referred to as the "Phase 1 Report".*

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.

Other pending government approvals that affect the property covered in this proposal include the following projects:

NuStar Terminal Logistics Improvement Project

The proposed project is expected to repurpose existing bulk storage and handling equipment to ship crude oil. Crude oil will be received via railcar, and stored in existing tanks that were previously used to store methanol. Crude oil will be shipped via marine tank vessel (ship/barge) at the existing NuStar dock. The proposed project involves the installation of new equipment needed to service the new commodity. This project is currently undergoing City of Vancouver permitting.

Vancouver Energy Distribution Facility

The proposed project would receive crude oil by rail, store it on site, and load it on marine vessels for shipment primarily for delivery to refineries located on the West Coast of North America. The project will be able to receive an average of 360,000 barrels of crude oil per day by rail. An average of four unit trains (trains of up to 120 cars) would arrive and depart the facility each day. Up to two additional rail lines would be added to the existing Terminal 5 loop to accommodate the rail unloading facility. The project would construct a rail car unloading facility at Terminal 5 designed to handle unit trains. An office building for administrative functions and additional employee support buildings would also be located at the Port's Terminal 5. Transfer pipelines would be installed to convey crude oil from the rail unloading facility to six proposed storage tanks at the Port's Parcel 1A and from the tanks to the marine terminal for loading on to vessels that would be berthed at the Port's existing Berths 13 and 14. The proposal would include ancillary facilities such as emissions control equipment and stormwater facilities. This project is currently under review by the Washington State Energy Facility Site Evaluation Council (EFSEC). The proponent, Vancouver Energy, will also require a permit from the Army Corps of Engineers to implement project-related berth modifications.

Sunlight Supply Building at Centennial Industrial Park

Sunlight Supply Inc. is proposing to build an approximately 285,000 square foot building to house a new corporate headquarters, manufacturing center and distribution facility on approximately 15 acres at the Port of Vancouver's Centennial Industrial Park. This project is currently undergoing review with the City of Vancouver.

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

Department of Ecology

- *Construction Stormwater Permit*
- *Water Right for Application G2-30649*

Department of Health

- *Water system project approval*

Southwest Clean Air Agency

- *Air permit approval*

City of Vancouver

- *Shoreline permit*
- *Critical areas permit*
- *Building permit*
- *Plumbing and electrical permits*
- *Grading permit*
- *Stockpile permit*

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 Port of Vancouver, founded in 1912, is a deep-water port located in Vancouver, Washington along the Columbia River. The Port is a developer of marine and industrial property, generating significant economic activity for the public benefit. The Port manages over 2,100 acres, serves more than 50 businesses that employ about 2,300 employees, and generates approximately \$1.6 billion of annual economic benefit.

The Port intends to secure additional water rights and install production water wells and related access, infrastructure and equipment required to meet long-range water demand. As a water provider, the Port is responsible for ensuring that both existing and future tenants and customers have an adequate supply of water.

While the Port currently distributes water to tenants and customers located on its property, it is possible that distribution could be extended to adjacent parcels. In order to provide future flexibility, the place of use for the requested water right encompasses the Port's property and includes some neighboring property. Potable water is available throughout this area from the City of Vancouver and Clark Public Utilities (CPU). It is not the Port's intent to provide a drinking water supply for residential land owners that may be situated within the designated place of use.

Within the port's 2,100+ acres, over 800 acres are currently developed with operational industrial and marine facilities, and over 600 acres are available for future development. The Port's currently-developed industrial properties are nearly completely leased and routinely undergo redevelopment according to market demands. In addition, shovel-ready industrial land is available in Centennial Industrial Park, and other areas are undergoing long range planning (i.e. Columbia Gateway). For the Port to actively market their facilities to a wide range of potential tenants and customers as well as accommodate current and future water needs, the Port requires a robust water right portfolio that provides flexibility to locate production wells as needed throughout its property so it can meet industrial and other water-related needs (including but not limited to manufacturing, commercial processes, domestic and potable demand, fire suppression, dust control, environmental quality, wildlife propagation, irrigation, and mitigation programs) now and in the future.

The Port has applied for a new water right permit to use an instantaneous quantity (Qi) of 20,500 gallons per minute (gpm) and an annual quantity (Qa) of 22,050 acre-feet per year (ac-ft/yr). The requested Qi and Qa consist of "additive" and "non-additive" components, as defined in Ecology's Water Resources Program Policy POL-1040.

This proposal anticipates the construction and installation of as many as 15 production water wells and associated access, infrastructure and equipment following permitting approvals.

This checklist addresses the potential impacts of the proposed groundwater withdrawals, the types of impacts that may result from potential future well construction and the general areas within which specific improvements to the water system may be developed in the future.

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.

See Figures 1 and 2 for location.

Place of Use:

The project site is situated within the following places of use:

In Township 2 North, Range 1 West, W.M.

S ½ of Section 1, T2N, R1W
E ½ of SE of Section 2, T2N, R1W
NE of NE of Section 11, T2N, R1W
Section 12, T2N, R1W
Section 13, T2N, R1W

In Township 2 North, Range 1 East, W.M.

W ½ of SW of Section 7, T2N, R1E
SW of SW of Section 16, T2N, R1E
S ½ of Section 17, T2N, R1E
SW of NE of Section 18, T2N, R1E
W ½ of Section 18, T2N, R1E
SE of Section 18, T2N, R1E
N ½ of Section 19, T2N, R1E
Section 20, T2N, R1E
NW of NW of Section 21, T2N, R1E
S ½ of NW of Section 21, T2N, R1E
SW of Section 21, T2N, R1E
W ½ of SE of Section 21, T2N, R1E
SW of Section 27, T2N, R1E
N ½ of Section 28, T2N, R1E
N ½ of SE of Section 28, T2N, R1E
NE of NE of Section 29, T2N, R1E

Points of Withdrawal:

The following quarter sections are potential well sites/points of withdrawal:

Section 1 – the SW ¼ and the SE ¼, of T. 2 N., R. 1 W.W.M.
Section 2 – the SE ¼ of T. 2 N., R. 1 W.W.M.
Section 7 – the SW ¼ of T. 2 N., R. 1 W.W.M.
Section 11 – the NE ¼ of T. 2 N., R. 1 W.W.M.
Section 12 – the NW ¼, the NE ¼, the SW ¼ and the SE ¼ of T. 2 N., R. 1 W.W.M.
Section 13 – the NW ¼, the NE ¼, the SW ¼ and the SE ¼ of T. 2 N., R. 1 W.W.M.
Section 17 – the SW ¼ and the SE ¼ of T. 2 N. R. 1 E.W.M.
Section 18 – the NW ¼, the SW ¼ and the SE ¼ of T. 2 N. R. 1 E.W.M.
Section 19 – the NW ¼ and the NE ¼ of T. 2 N. R. 1 E.W.M.
Section 20 – the NW ¼, the NE ¼, the SW ¼ and the SE ¼ of T. 2 N. R. 1 E.W.M.
Section 21 – the NW ¼, the SW ¼ and the SE ¼ of T. 2 N. R. 1 E.W.M.
Section 27 – the SW ¼ of T. 2 N. R. 1 E.W.M.
Section 28 – the NW ¼, the NE ¼ and the SE ¼ of T. 2 N. R. 1 E.W.M.

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)?

Available survey information indicates that the majority of the site slopes are between 0-5%. The steepest slope is approximately 5%.

- 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.

Soils within the port include clay, sand and gravel, peat and muck. Available GIS information indicates that Fn / Non-Hydric is located over the majority of the sites. The properties do not contain agricultural land of long-term commercial significance as designated in the current Clark County Comprehensive Plan.

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

There are no surface indications or history of unstable soils in the immediate vicinity. GIS information lists liquefaction susceptibility as moderate to high. National Earthquake Hazards Reduction Program (NEHRP) site classification for the subject properties are C-D. NEHRP Soil Site Classes categorizes the potential for enhanced or amplified ground shaking and range from A (the best - hard rock) to F (the worst - soft clay or swamp muck). Most of the area has been filled and developed with asphalt or gravel parking and loading areas, office buildings, industrial buildings, roads, rail alignments, and storage tracks. There are some undeveloped areas in the project area that are surrounded by industrial infrastructure.

- 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 any filing, excavation or grading would be for the future construction of the 15 production wells and related access, infrastructure, and equipment, including but not limited to well house structures. The total area of any given well house may vary depending on the size and number of wells that it may house but may range in size from 80 sq. feet – 5,000 sq. feet in total area. The total affected area would also include any excavation or trenching required for related infrastructure required for connection to the water system or operational purposes. All cut and fill work would be conducted from upland areas using standard heavy machinery, including but not limited to bulldozers, track hoes, backhoes, dump trucks, scrapers, compactors, graders, drill rigs and related support vehicles.

Cut and fill quantities may vary from site to site but could be as low as 100 cubic yards up to 25,000 cubic yards per well based on current and proposed elevations required to construct the infrastructure to house and operate the production wells.

The source of the fill for this project is not known at this time but the placement of all new fill will be performed in accordance with the Port's fill acceptance guidelines to address all physical, geotechnical and environmental criteria.

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

There are no designated Erosion Hazard Areas in the project area as defined by City code (Vancouver Municipal Code [VMC] 20.740.130). Ground disturbance, such as site grading and earthwork during construction could result in some soil erosion but potential erosion impacts would be mitigated through compliance with federal, state and local regulations.

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

The net change in impervious surface area could range between 0.1- 1.0 acres per location of the 15 proposed production well locations.

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

In addition to other measures to control erosion and impacts to the earth identified previously, construction-related erosion during site grading and earthwork would be minimized by the implementation of erosion and sediment control best management practices (BMPs) and would be developed and implemented to comply with the requirements specified in the Grading Permit , NPDES General Construction and Stormwater Permit, Stormwater Pollution Prevention Plan (SWPPP), and Temporary Erosion and Sedimentation Control Plan (TESC Plan) where applicable. These documents will describe typical measures to avoid or minimize erosion impacts on water quality, including but not limited to the following:

- *timing constraints;*
- *erosion control devices;*
- *hydro seeding and planting specifications;*
- *stormwater detention, treatment, and discharge facilities;*
- *stormwater monitoring;*
- *designation of washing, refueling, staging and laydown areas;*
- *buffers around sensitive areas;*
- *fencing to prohibit entry to sensitive areas; and*
- *emergency response protocols.*

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.

During construction of the proposed well-related infrastructure, some particulate materials- such as fugitive dust- may occur as a result of the increased truck and heavy machinery traffic and removal and placement of materials. Additionally, construction equipment would generate hydrocarbons and diesel exhaust, and dust would be generated during construction. However, such emissions would be temporary, lasting only for the duration of construction. Fugitive dust would be minimal and localized at the point of active construction. Therefore, air quality emissions during construction would not cause a significant impact.

After construction is complete, diesel, gasoline, propane and/or other fuel exhaust would be generated by use of backup generators and well pump engines. Emissions from these non-electric engines would be operated in compliance with federal, state, and local emissions standards.

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

There are no known off-site sources of air emissions or odor that would affect either the construction or operation of the proposal.

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

As necessary, dust suppressants such as periodic watering would be used to minimize particulate emissions during construction. In addition, equipment not in use would be shut off, and all trucks transporting materials capable of producing fugitive dust would use appropriate covers as necessary. Trucks used for transporting fill and other materials during construction would use mufflers consistent with federal, state, and local standards.

Emissions from any non-electric generator and well pump engines would be operated in compliance with federal, state, and local emissions 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.

The Columbia River, which is a Type S (Shoreline) stream as defined per Washington Administrative Code (WAC) 222-16-030, Vancouver Lake, Vancouver Lake Lowlands, Vancouver Lake Flushing Channel and Buckmire Slough are located in the vicinity of Port properties. Several wetlands have been identified in the project area (Parcel 1A, Parcel 2, and Parcel 7 wetlands, Moorage 5 wetlands, Terminal 5 West wetland, Columbia Gateway wetlands, and the Columbia River Wetland Mitigation Bank).

- 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.

No

- 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.

None

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

None

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

Yes, according to the FEMA 2012 Flood Insurance Rate Maps for the area, portions of the proposal lie within the 100-year floodplain. See attached Figure 3 for flood plain area designation.

- 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 be withdrawn from multiple wells for drinking water and other purposes. The Port's current water system includes three 100-foot wells, which are located in the eastern portion of the Port's property. Up to 15 additional wells will be constructed as needed to withdraw a maximum Qi of 20,500 gpm and Qa of 22,050ac-ft/yr.

A total of 31 potential future well sites on port property have been designated for potential future wells. It is unlikely that more than 15 wells will be constructed under any future proposal. Individual well yields will likely range between 500 and 2,000 gpm and will be targeted to meet port, customer and tenant needs as they are defined.

Port requires a robust water right portfolio that provides flexibility to locate production wells as needed throughout its property so it can meet industrial and other water-related needs (including but not limited to manufacturing, commercial processes, domestic and potable demand, fire suppression, dust control, environmental quality, wildlife propagation, irrigation, and mitigation programs).

Future additions and expansions related to this proposal will include but are not limited to the following: Well construction will be conducted in accordance with the state standards (WAC 173-160). Well construction will include installation of access roads and drilling pads for drill rigs and other related equipment. Wells will be constructed using large diameter casing (typically 12 to 30 inch) and slotted screen. Depth and diameter of the well will be determined by specific hydrologic conditions at the well location. Well seals and other design features will be installed in conformance with State requirements. Well-head improvements will be installed to prevent entry of potential contaminants into the subsurface.

To verify performance of a proposed permanent well, a temporary well/borehole (test well) may be installed. Accompanying piezometers and/or small observation wells may also be installed to measure drawdown in the extraction area and to verify well productivity. These temporary improvements will be abandoned in place in accordance with applicable regulations (WAC 173-160-381) once performance testing is complete.

Supply wells will be tested once they are constructed and have been developed. If required, temporary discharge permits will be acquired from the appropriate agency to discharge well testing water. Testing will include 1 to 4 hour step-rate test to assess well performance and longer-term constant-rate tests (8-24 hours) to assess aquifer properties, well capacity and water quality issues.

Groundwater will be extracted using either submersible or vertical turbine pumps.

- 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.

This proposal would not require the discharge of waste material 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.

Future well sites may create new impervious surface. In such event, runoff would be limited to stormwater and other allowable discharges as stated in Western Washington Phase II Municipal Stormwater Permit Section S6.D3 and the Industrial Stormwater General Permit S5.D2 . Runoff from these areas will be managed by current and future stormwater conveyance systems where it can be handled in accordance with all federal, state and local standards. If new stormwater collection and treatment systems are necessary for new well construction, the systems will be designed to meet Ecology's current Stormwater Management Manual for Western Washington and VMC Chapter 14.25.

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

Because this proposal may require the installation of water treatment chemicals in order to meet water quality and system maintenance needs, there may be the potential that the handling of hazardous materials will inadvertently result in the materials entering surface and groundwater. Reasonable care will be taken to avoid this possibility. Neither the construction nor operation of the proposed wells would intentionally result in waste materials entering ground or surface waters. Typical chemicals that may be used in the water treatment process may include but are not limited to: Algaecides, Antifoams, Biocides, and Coagulants, Corrosion inhibitors, Disinfectants, Flocculants, Neutralizing agents, Oxidants, Oxygen scavengers, pH conditioners, Resin cleaners and Scale inhibitors.

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

This proposal may affect drainage patterns in the vicinity of some of the proposed sites. In most circumstances any infrastructure, including well houses and access roads, will be built in a fashion to accommodate existing drainage patterns and/or stormwater conveyance systems and treatment facilities. In the event construction cannot accommodate the existing drainage at the site, an engineered solution will be designed to address drainage in accordance with all federal, state and local standards.

- 4) Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

During construction of this proposal, BMPs would be implemented to minimize erosion impacts on water quality in order to comply with the requirements specified in the Grading Permit (obtained from the City of Vancouver), NPDES General Construction Stormwater Permit, SWPPP, and TESC Plan where applicable.

Typical BMPs that would be implemented include but are not limited to:

- timing constraints;
- erosion control devices;
- hydro seeding and planting specifications;
- stormwater detention, treatment, and discharge facilities;
- stormwater monitoring;
- designation of washing, refueling, staging and laydown areas;
- buffers around sensitive areas;
- fencing to prohibit entry to sensitive areas; and
- emergency response protocols.

Existing and new stormwater systems would collect and treat stormwater from all new impervious surfaces, reducing pollutant loading and the potential for water quality impacts during the operation of the proposal.

New stormwater systems will be designed to the standards of the Stormwater Manual for Western Washington, and will be consistent with the requirements of the WSDOT (2014) Highway Runoff Manual.

With the continued implementation of these plans and procedures, the proposed project is not anticipated to impact the Troutdale Aquifer.

4. Plants

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

deciduous tree: *alder, maple, aspen, other: oak, cherry, tulip*

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: *Nonnative grasses and herbaceous species, Himalayan blackberry, Scotch broom*

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

The type and amount of vegetation removal is dependent on well placement locations but could include vegetation types identified above in 4.a. Compliance with the local, State and Federal permits and approvals for any future removed or altered vegetation in connection with the proposed action will occur as necessary.

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

*No federally listed plant species are known to exist in the project area. A plant species listed as State Sensitive, Western ladies tresses (*Spiranthes porrifolia*), occurs in an area located on port property known as Parcel 3. If well placement occurs in an area where there are threatened or endangered species, the Port will comply with local, State and Federal regulations.*

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

Any landscaping requirements for well construction will be implemented as necessary.

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

Noxious weeds and invasive species that are known to be on or near the project site include:

- *Poison hemlock (Conium maculatum)*
- *Himalayan blackberry (Rubus armeniacus)*
- *Blackberry (Rubus villosus)*
- *Milk thistle (Silybum marianum)*
- *Scotch broom (Cytisus scoparius)*
- *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: hawk, heron, eagle, songbirds, other: Owl, Crow, Seagull, Sparrow, Peregrine Falcons, Sandhill Crane, Streaked Horn Lark, Osprey, Bald Eagle, wintering fowl, pigeons
 mammals: deer, bear, elk, beaver, other: mice, rats, California and Steller sea lion, coyote
 fish: bass, salmon, trout, herring, shellfish, other: sturgeon, smelt

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

The following list includes federally-listed threatened or endangered species that can occur on or near port properties.

ESA-listed species

Chinook salmon (Oncorhynchus tshawytscha)

- *Lower Columbia River Evolutionarily Significant Unit (ESU)*
- *Upper Columbia River spring-run ESU*
- *Snake River fall-run ESU*
- *Snake River spring/summer-run ESU*
- *Upper Willamette River ESU*

Chum salmon (Oncorhynchus keta)

- *Columbia River ESU*

Coho salmon (Oncorhynchus kisutch)

- *Lower Columbia River ESU*

Steelhead (Oncorhynchus mykiss)

- *Lower Columbia River Distinct Population Segment (DPS)*
- *Upper Columbia River DPS*

- Snake River Basin DPS
- Middle Columbia River DPS
- Upper Willamette River DPS

Sockeye salmon (*Oncorhynchus nerka*)

- Snake River ESU

Bull Trout (*Salvelinus confluentus*)

- Columbia River DPS

Pacific eulachon/smelt (*Thaleichthys pacificus*)

- Southern DPS

North American green sturgeon (*Acipenser medirostris*)

- Southern DPS

Streaked horned lark (*Eremophila alpestris strigata*)

Oregon spotted frog (*Rana pretiosa*)

Yellow billed cuckoo (*Coccyzus americanus*)

Critical Habitats

- Designated critical habitat for all of the above mentioned DPS/ESUs of Chinook salmon, chum salmon, steelhead, sockeye salmon, bull trout, Pacific eulachon, and North American green sturgeon.
- Proposed critical habitat for Lower Columbia River coho salmon (proposed for designation January 14, 2013).
- Streaked horned lark critical habitat includes several specifically identified sandy dredge deposit locations in and adjacent to the Lower Columbia River but does not include any areas of the port or Clark County. The nearest designated critical habitat is downstream of the port, near Kalama, Washington.
- Critical habitat has been proposed for yellow-billed cuckoo, but does not include any habitat in Washington State.
- The USFWS has proposed designation of critical habitat for the Oregon spotted frog, but it does not include any habitat in the vicinity of the port.

Other protected species

In addition to the listed species above, the following species are notable and may occur within the Port:

- Steller sea lion (*Eumatopius jubatus*) (Eastern DPS)
- Sandhill crane (*Grus canadensis*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Pacific pond turtle (*Actinemys marmorata*)
- Osprey (*Pandion haliaetus*)

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

The general area of the identified properties are within the Pacific Flyway, a broad migratory corridor that extends from Alaska to Central America and is used by waterfowl, eagles, hawks, falcons, songbirds, sand hill cranes and shorebirds.

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

No measures are proposed. No significant adverse impacts are anticipated to result to wildlife as a result of the proposed project.

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

Starlings have been observed on or near the identified properties. Invasive aquatic species may include New Zealand mud snails and grass carp.

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.

Upon completion of water system construction, electricity, diesel and propane will be used to pump groundwater from the proposed wells. Water will be used for industrial and other water-related needs (including but not limited to manufacturing, commercial processes, domestic and potable demand, fire suppression, dust control, environmental quality, wildlife propagation, irrigation, and mitigation programs). Natural gas may be used as a heating source, and electricity may also be used for heating and to provide power for lighting and other operational equipment.

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

No, this proposal will not affect solar energy use on adjacent properties.

- 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

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.

Increased groundwater withdrawal associated with the Port's water right application has the potential to alter groundwater flow patterns and consequently impact both ongoing environmental remedial actions in the area and existing water users. To assess these potential impacts, Pacific Groundwater Group PGG completed an extensive review of environmental sites in the lower Vancouver Lake Lowland and used a calibrated groundwater model of the lowland to estimate hydraulic effects under full utilization of the proposed water right. Potential impacts of the Port's water right application to environmental remedial actions and cleanups are discussed below and potential impacts to existing water users are discussed in Section B.8. Land and Shoreline Use.

Portions of the Vancouver Lake Lowland have a long history of commercial and industrial land use, particularly in the vicinity of the Columbia River. A potential byproduct of these land uses can be negative impacts to the environment.

Port documents and input along with Ecology databases were used to identify key environmental sites in the vicinity of the Port's property and possible future Port production wells. A total of 17 environmental sites were identified, which are listed below in Section B.7.a.1. Of the environmental sites in the area, 11 included groundwater investigations, 4 did not include groundwater investigations, and 2 were part of groundwater-level or nutrient-based studies (i.e. did not include groundwater quality parameters of concern). PGG's review indicated that many of the environmental sites have undergone significant cleanup actions and are now in long-term confirmation monitoring. In fact, Ecology has issued No Further Action (NFA) determinations for 7 of the 17 environmental sites identified in the vicinity of the Port's property.

Of particular relevance to the Port's water right application are sites that pose potential sources of groundwater contamination to existing or future production wells. Therefore, while all identified environmental sites were considered, PGG focused on the sites that included groundwater investigations.

The locations of the relevant environmental sites in the project vicinity were mapped by PGG. Where sufficient data were available, groundwater concentrations in the most recent sampling events at each site were compared to Ecology cleanup levels for unrestricted land use established under the Model Toxics Control Act (MTCA, WAC 173-340). The only environmental sites identified in the vicinity of the Port's property with groundwater exceedances of MTCA cleanup levels for unrestricted land use in the most recent sampling event are sites currently managed or co-managed by the Port: the Alcoa/Evergreen site, Former Fort Vancouver Plywood Site, Brazier Forest Industries site, the Swan Manufacturing Company (SMC)/Cadet/Nustar area-wide dissolved phase chlorinated solvent plume, and Automotive Services, Inc. (ASI) Former Leasehold/Glacier site. No additional sites with known groundwater impacts were identified. In 2014 Ecology issued a No Further Action (NFA) for the ASI Former Leasehold/Glacier site.

The SMC/Cadet/Nustar area-wide dissolved phase chlorinated solvent plume has an active pump and treat remedy to hydraulically contain the plume and to reduce the contaminant mass. As detailed in the Phase I report, PGG used a calibrated groundwater model of the Vancouver Lake Lowland to predict how drawdown associated with the Port's water right application would affect containment of the SMC/Cadet/Nustar area-wide dissolved plume. Future groundwater withdrawals are predicted to change groundwater gradients in the vicinity of the active SMC/Cadet/Nustar dissolved plume as larger water purveyors develop their full water rights. Clark Public Utilities (CPU) and the City of Vancouver will take over 30 years to fully develop their water rights. While modeling considered future groundwater withdrawals over this time frame, contaminant reductions over time were not incorporated in the model. Monitoring by the Port has demonstrated that the current pump-and-treat remedy is effectively reducing groundwater contamination associated with the SMC/Cadet/Nustar site. Therefore, as groundwater withdrawals in the Lowland increase, contamination in the plume will continue to decrease toward cleanup levels due to the containment and clean-up actions that have been implemented by the Port. As described in the Phase I report, on behalf of the Port, Parametrix recently completed an analysis of cleanup effectiveness of the SMC/Cadet/Nustar dissolved plume over the next 30 years. The analysis simulated increased groundwater pumping (e.g. City of Vancouver and CPU withdrawals) and plume containment. The analysis found that:

- Cleanup activities to date have been effective at reducing the contaminant source, and model predictions suggest that source reduction will be ongoing.
- Higher concentration portions of the contaminant plume will continue to be contained over the 30-year period considered by the analysis; however, trace concentrations may migrate toward City of Vancouver water station 3. The Parametrix modeling predicts that maximum trichloroethene (TCE) and tetrachloroethene (PCE) concentrations will be reduced to less than MTCA cleanup levels and Washington State drinking water standards before the chemicals arrive at the City's water station 3. The model predicted that the maximum TCE concentration arriving at City water station 3 would be 1.989 ug/L; the MTCA Method A cleanup level for TCE is 5 ug/L and the Washington Water Quality Standard for Groundwater is 3 ug/L (WAC 173-200-040). The model predicted that the maximum PCE concentration arriving at City water station 3 would be 0.492 ug/L; the MTCA Method A cleanup level for

PCE is 5 ug/L and the Washington Water Quality Standard for Groundwater is 0.8 ug/L (WAC 173-200-040). Parametrix further noted that projected PCE concentrations that may arrive at City water station 3 are below state reporting limits for analysis of VOCs in drinking water samples.

The additional drawdown associated with the Port's requested water right is relatively minor in the context of all drawdowns the Parametrix report studied. Even though the Parametrix report did not evaluate the new Port water right, the Port's new water right would not materially alter the conclusions in the Parametrix report.

The Port and NuStar are committed to comply with Ecology requirements including the Agreed Order. As needed, the Port will manage and adjust the groundwater pump and treat system as required to comply with the Agreed Order (or "Ecology's requirements").

In the information reviewed by PGG, groundwater contaminant plumes have not been mapped for the Alcoa/Evergreen, Former Fort Vancouver Plywood, Brazier Forest Industries, and Automotive Services, Inc. (ASI) Former Leasehold/Glacier sites. This could be because elevated groundwater concentrations at the sites are not sufficiently continuous laterally to be mapped. The Vancouver Lake Lowland groundwater model predicts that future groundwater withdrawals are predicted to change groundwater gradients in the vicinity of these sites. The Alcoa/Evergreen, Former Fort Vancouver Plywood, Brazier Forest Industries sites are actively monitored by the Port and groundwater quality data will indicate if future pumping adversely affects migration of contamination. New proposed pumping locations will be evaluated using the most current information available including the regional groundwater model to make a determination of whether or not the pumping at that location would affect the migration of contamination. To the extent that issues arise, the Port will modify their pumping regime to address these concerns given their commitments to manage both the quality and quantity of the resource.

Trace concentrations of dissolved organics are already ubiquitous in the Pleistocene Alluvial Aquifer (PAA) beneath the Vancouver Lake Lowland. Water purveyors expect to treat groundwater withdrawn from the PAA to extract low concentrations of dissolved chlorinated solvents. The City of Vancouver employs treatment at their water stations, and CPU's Carol Curtis well-field facility is designed to accommodate treatment should it be needed to address chlorinated solvents. The port, if necessary would also employ treatment should it be needed at any of the proposed sites. Ecology is aware of the presence of trace organic concentrations within the PAA, and focuses their regulation on containment and treatment of higher concentrations within the bodies of contaminant plumes.

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

Descriptions of known or possible contamination on port property and properties adjacent to the port from past uses include:

- *Sites that included groundwater investigations:*
 - *Former Swan / Cadet Manufacturing Facility (Chlorinated solvents)*
 - *Nustar Facility (Chlorinated solvents)*
 - *Terminal 5, Former Alcoa/Evergreen Facility (Chlorinated solvents, Polychlorinated biphenyls, Fluoride, Free Cyanide and Hydrocarbons)*
 - *Former Fort Vancouver Plywood Facility (Vinyl chloride, Hydrocarbons and MTBE)*
 - *Former Automotive Services Inc Facility (Hydrocarbons) – Ecology issued NFA 2014*
 - *Former Brazier Industries Facility (Hydrocarbons)*
 - *Tetra Pak Vancouver (Pentachlorophenol, Dioxin/Furans) – Ecology issued NFA 2012*
 - *Frito Lay Vancouver Hydraulic Lift Area (Hydrocarbons)Bark Duster PCB/Cliff Koppe Metals, Inc. (Metals, Hydrocarbons, Polychlorinated Biphenyls, Polynuclear Hydrocarbons) – Ecology issued NFA 2009*

- *Former Carborundum Site (Polyaromatic Hydrocarbons, Metals) – Ecology issued NFA 1998*
- *Albina Wholesale Warehouse (Hydrocarbons) – Ecology issued NFA 1998*
- *Sites that did not include groundwater investigations:*
 - *Former Bill Copps, Inc./Fort Vancouver Regional Library (Hydrocarbons) – Ecology issued NFA 2011*
 - *Estate of Mary E MacKay (Hydrocarbons)*
 - *Northwest Pipeline South Vancouver/Vanalco Meter Station (Mercury) – Ecology issued NFA 2012*
 - *Plaid Pantry 112 (Hydrocarbons)*

- 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.

Underground petroleum and natural gas transmission pipelines are located within the project area and include BP Olympic, Tesoro, NuStar liquid petroleum pipelines; Williams and Northwest Natural gas pipelines.

- 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.

Typical chemicals that may be used in the water treatment process may include but are not limited to: Algaecides, Antifoams, Biocides, Coagulants, Corrosion inhibitors, Disinfectants, Flocculants, Neutralizing agents, Oxidants, Oxygen scavengers, pH conditioners, Resin cleaners and Scale inhibitors. Fuels such as gasoline, diesel or propane would also be used on site for other related equipment such as but not limited to backup generators and pumps.

- 4) Describe special emergency services that might be required.

None anticipated for this proposal.

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

During construction and operation port contractors and port crews will implement management practices to minimize the potential for a release to soil, groundwater, or surface water. Hazardous awareness training will be provided to all pertinent staff, operators and contractors. Measures to reduce or control hazards associated with groundwater contaminant migration are discussed in Section B.7.a above.

b. Noise

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

The identified properties are adjacent to city roadways as well as mainline rail lines, industrial operations, and river traffic. However, no noise impacts are anticipated to affect this proposal.

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

Based on an evaluation of the types of construction activities and operational noise that would be generated from the proposed project, construction and operational noise would likely be similar to or less than background noise levels.

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

Because noise from the construction and operation of the proposed project would not exceed the levels specified in VMC 20.935 or WAC 173-60, no mitigation is proposed.

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 proposed project area traverses land currently occupied by a variety of uses including heavy and light industrial and agricultural uses. Industrial plan and zoning designations of the lands have been in place for almost 50 years. Other uses in the nearby area include residential uses and open space uses, including a wetland mitigation bank. The City of Vancouver has been designated a Critical Aquifer Recharge area. Uses within the City of Vancouver include a wide variety of residential, commercial and industrial uses.

The project proposes to withdraw water from the PAA which is currently used by the Port, the City of Vancouver, Great Western Malting and other smaller water users for municipal, industrial and irrigation supply needs. In addition, CPU plans on using the PAA to meet its regional municipal supply needs in the future.

Impairment to other water users typically occurs as interference drawdown associated with a new groundwater withdrawal (i.e. drawdown imposed on other nearby wells due to pumping). Under some circumstances, significant interference drawdown could reduce the well yield in nearby wells, although this would not be the case for PAA supply wells given the highly transmissive nature of the aquifer. As described in the Phase I report, PGG used a calibrated groundwater model of the Vancouver Lake Lowland to estimate drawdown associated with the proposed Port water right. The geology and hydrogeology of the Vancouver Lake Lowland has been extensively studied by local purveyors and peer reviewed; therefore, aquifer properties used in the model are well understood.

Modeling by PGG indicates that relative to water levels predicted at full use of these existing water rights, interference drawdowns associated with the requested Port water right are predicted to be less than 0.25 feet at the associated points of withdrawal. This impact is negligible relative to the effects of Columbia River stage variation on PAA water levels (over 7-10 feet variation on a seasonal basis), and will not impair the ability of existing water right holders to obtain their allocated withdrawals. The extremely high transmissivity of the PAA along with its hydraulic connection to the Columbia River tends to minimize and stabilize drawdown associated with pumping withdrawals.

Therefore, extensive groundwater study and numerical modeling of aquifers in the Vancouver Lake Lowland confirm that there is sufficient water to meet all long-term needs.

- 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 non-forest use?

A portion of the properties identified in this proposal are currently used to grow silage corn for cattle. Minimal land is required to construct a well house structure and related infrastructure. It is anticipated that up to 1 acre of land could be needed for each individual location for a total of approximately 15 acres. The properties do not contain agricultural land of long-term commercial significance as designated in the current Clark County Comprehensive Plan.

- 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:

Not as a result of this proposal.

- c. Describe any structures on the site.

The sites identified in this proposal contain various structures that generally include the following:

- *Industrial warehouses*
- *Manufacturing facilities*
- *Commercial buildings*
- *Docks and wharves*
- *Grain silos*
- *Tank farms*
- *Houses, barns*

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

Existing structures may need to be partially demolished, altered or remodeled to accommodate new water system infrastructure.

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

Zoning for the sites identified in this proposal include the following classifications:

- *City Center (CX)*
- *Heavy Industrial (IH)*
- *Light Industrial (IL)*
- *Greenway/Open Space (GW)*

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

The current comprehensive plan for the proposed sites identified in this proposal include the following designations:

- *Commercial (COM)*
- *Industrial (IND)*
- *Parks/Open Space (P/OS)*

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

Subject properties are designated as High-Intensity by the City's Shoreline Management Master Program.

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

The critical areas identified were frequently flooded areas, fish and wildlife habitat conservation areas, wetlands, special protection areas, and geologic hazard areas.

Frequently Flooded Areas

No frequently flooded areas would be affected by this proposal.

Fish and Wildlife Habitat Conservation Areas

No fish and wildlife habitat areas would be affected by this proposal.

Wetlands

No wetlands are anticipated to be affected by this proposal.

Special Protection Areas/Sole Source Aquifer

The project supply aquifer (PAA) is located above the Troutdale Aquifer. The project site and underlying aquifers are located within a critical aquifer recharge area (CARA) as defined in VMC 14.26.115, and the Troutdale Aquifer has been designated as a sole source aquifer by EPA. None of the proposed wells will be constructed within 1,900 feet of a municipal water well supply and therefore the Port's water right application is not subject to the special protection area provisions of "VMC 14.26, Water Resources Protection." The shortest radial distance between one of the Port's proposed points of withdrawal in the application to an existing municipal supply well is approximately 1 mile.

Geologic Hazard Areas

According to Clark County GIS data, the entire project area is classified as a geologically hazardous area due to potential for liquefaction, dynamic settlement, or ground-shaking amplification during an earthquake. Structures proposed in this project will undergo local, State and Federal permitting as required to ensure conformance with codes.

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

Refer to Section A-11 for current employment numbers at the Port.

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

No displacement impacts are expected as a result of this proposal.

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

No displacement impacts are expected as a result of this proposal, therefore no mitigation measures are proposed.

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

The proposed project will comply with VMC Chapter 20.935, Off-Site Impacts, which includes standards to ensure that the operations of land uses do not have a deleterious effect on neighboring land uses.

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

No measures are proposed. There are no known incompatibilities.

9. Housing

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

None for this proposal.

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

None for this proposal.

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

None for this proposal.

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?

The tallest height of any proposed structure is approximately 25 feet; exterior building material may consist of wood, composite, metal, concrete, brick or any combination of the previously listed materials.

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

No views will be altered or obstructed by this proposal.

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

None.

11. Light and glare

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

Lighting would be limited to exterior building lights on well house structures. Typically this type of lighting would be motion detected or turned on by timer for night time use but may be needed for day time purposes as well. Light levels for the site would be designed to meet Occupational Safety and Health Administration (OSHA) requirements. Lighting will be shielded and directed toward work areas and no off-site glare impacts are expected to result from its use. Lighting on the proposed site will be designed to ensure compliance with VMC 20.935.030.D, which prohibits off-site glare impacts from direct or reflected light sources.

- 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.

12. Recreation

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

Columbia River and Vancouver Lake provide opportunities for recreational boating and fishing. City roadways and trails serving the identified properties are used by cyclists and pedestrians.

- 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:

No impacts to recreation are anticipated.

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.

No buildings, structures or sites on or near the sites are known to be eligible for listing in national, state or local preservation registers. No buildings, structures or sites are anticipated to be impacted by the installation of water wells.

- 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.

The archaeological predictive model for Clark County identifies the Vancouver Lake Lowlands as a high probability area for containing cultural resources. The action is not anticipated to impact any areas that are known to contain archaeological or cultural artifacts. If necessary a cultural inspection will be completed before well installation.

- 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.

Future well drilling and infrastructure construction will only be done after any required environmental review is complete, including potential impacts to cultural and historic resources. Prior archeological studies, Clark County GIS data, DAHP, WISAARD, tribal cultural staff, Clark County Historical Museum and other resources may be used as necessary to assess potential impacts.

- 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.

Future well drilling and infrastructure construction will only be done after any required environmental review for individual well construction is complete. Construction of future wells and associated infrastructure will be conducted in accordance with the RCW 27.53.060 (Archaeological Sites and Resources) and RCW 27.44.020 (Indian Graves and Records) and all applicable Washington State Department of Archaeology and Historic Preservation (DAHP) regulations.

In the event any archaeological or historical materials are encountered during project activity, work in the immediate area (initially allowing for a 100' buffer; this number may vary by circumstance) must stop and the following actions taken:

- 1. Implement reasonable measures to protect the discovery site, including any appropriate stabilization or covering; and*
- 2. Take reasonable steps to ensure the confidentiality of the discovery site; and,*
- 3. Take reasonable steps to restrict access to the site of discovery*

The port will notify the concerned Tribes and all appropriate county, state and federal agencies, including the Department of Archaeology and Historic Preservation. The agencies and Tribe(s) will discuss possible measures to remove or avoid cultural material, and will reach an agreement with the port regarding actions to be taken and disposition of material.

If human remains are uncovered, appropriate law enforcement agencies shall be notified first, and the above steps followed. If the remains are determined to be Native, consultation with the affected Tribes will take place in order to mitigate the final disposition of said remains.

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.

Access to the properties identified in this proposal are generally served from City streets primarily, Mill Plain, Lower River Road, Columbia Street, West 6th Street and Esther Street.

- 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?

Yes, C-Tran serves a portion of the port's 2,100 acres, primarily near the eastern property boundaries.

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

No spaces are proposed or would be eliminated as part of this proposal.

- 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 off-site improvements of roads or streets are anticipated to be necessary as part of this proposal. Access roads to well sites may be developed as necessary depending on final well site locations.

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

Well sites may be in the vicinity of water or rail transportation at the Port.

- 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 non-passenger vehicles). What data or transportation models were used to make these estimates?

There would be minimal vehicular trips to proposed sites conducted by water system operators for inspections and routine maintenance. Trips could vary from 1-7 trips a week.

- 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:

None for this proposal.

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.

The proposal will not result in an increased need for public services.

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

None

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.

Utilities that may be needed for the proposed project may include but are not limited to electricity by Clark Public Utilities, natural gas by NW Natural, City of Vancouver (water and sewer), telecommunications by Comcast, Century Link and/or Verizon. General construction activities on the site or in the vicinity may include grading, installation of underground utilities, above ground storage tanks, drilling/boring, construction of wood/concrete/steel buildings, paving, fencing and landscape.

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.

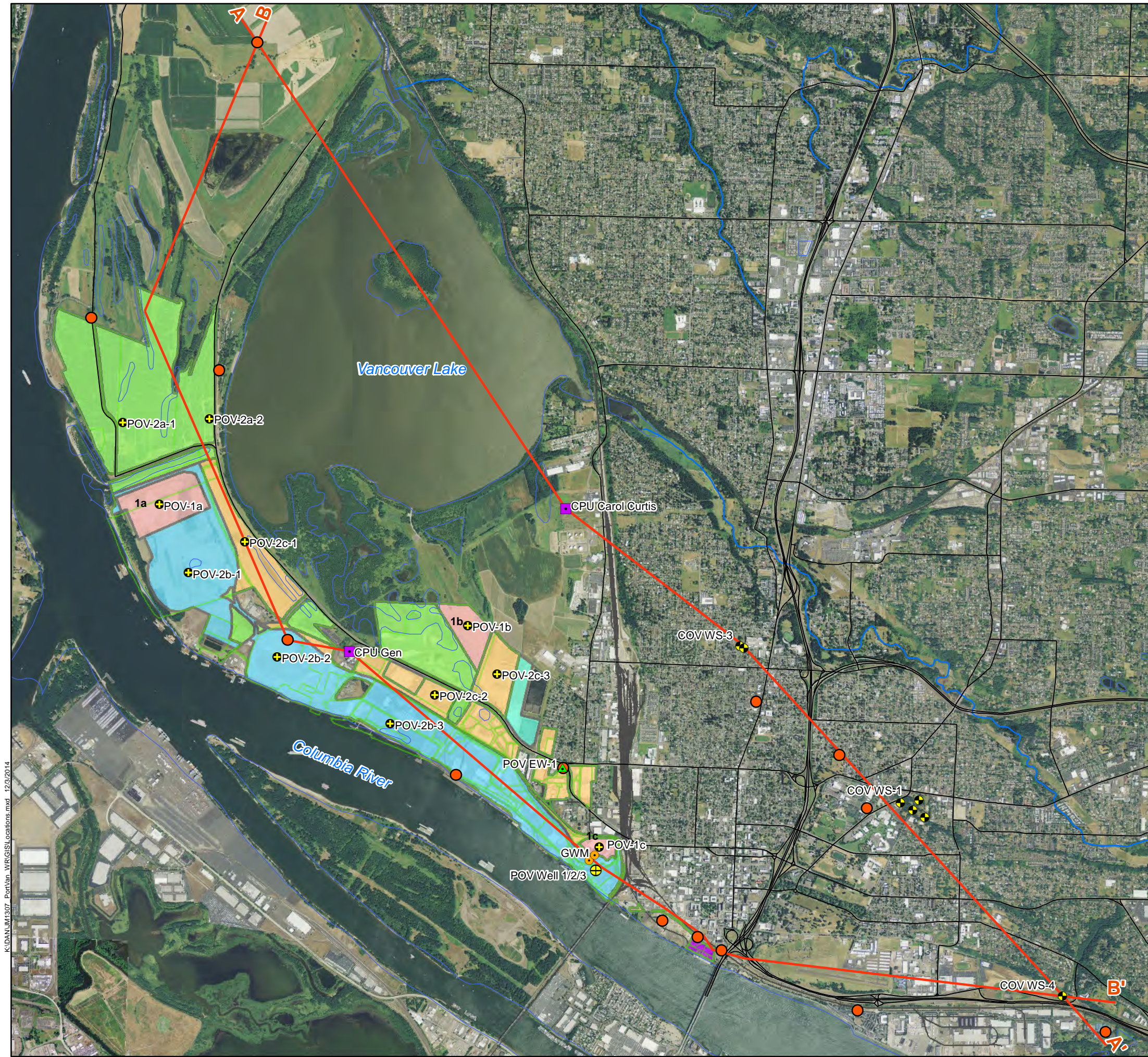
Signature: 

Name of signee: MATT GRAVES

Position and Agency/Organization: ENVIRONMENTAL MANAGER / PORT OF VANCOUVER

Date Submitted: 10-30-15

Figure 1
Location of Current and
Future Water Supply Sources



Well Locations

- City of Vancouver
- Clark Public Utilities
- GWM
- Port of Vancouver
- Port of Vancouver EW-1
- Potential Future Port of Vancouver Location
- Port of Vancouver Pacels
- Cross Section Alignments
- Wells Used in Cross Sections

Landuse Categories

- Large Specific Users (1a, 1b, 1c)
- Irrigated Lands (2a)
- Marine (2b)
- Industrial (2c)
- Potential Port Expansion Area (2d)
- Urban (2e)

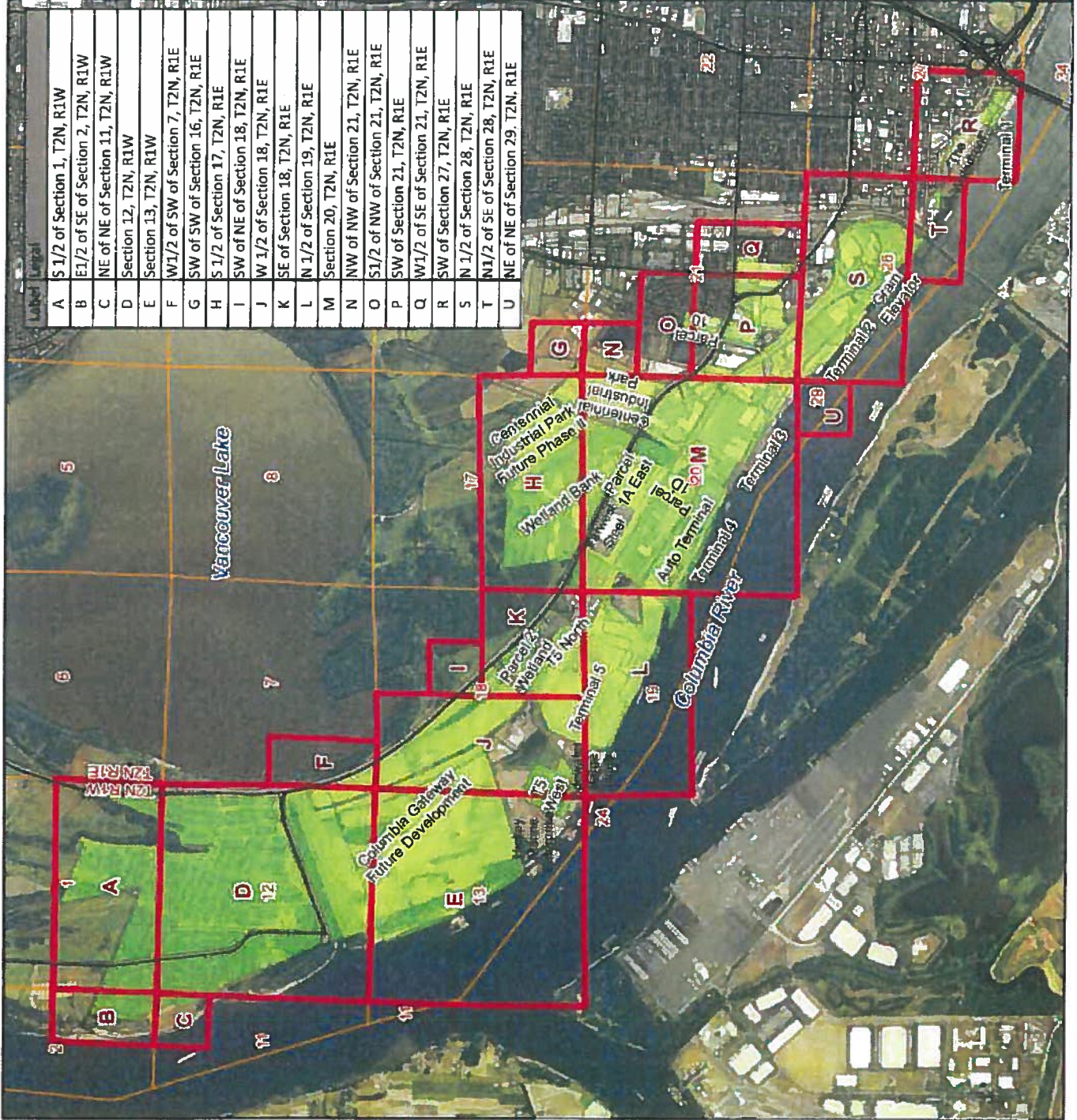
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Exhibit 2 Port of Vancouver Place of Use PGG

- Port POU
- Sections (from County)
- Port of Vancouver Parcels



0 Feet 3,000



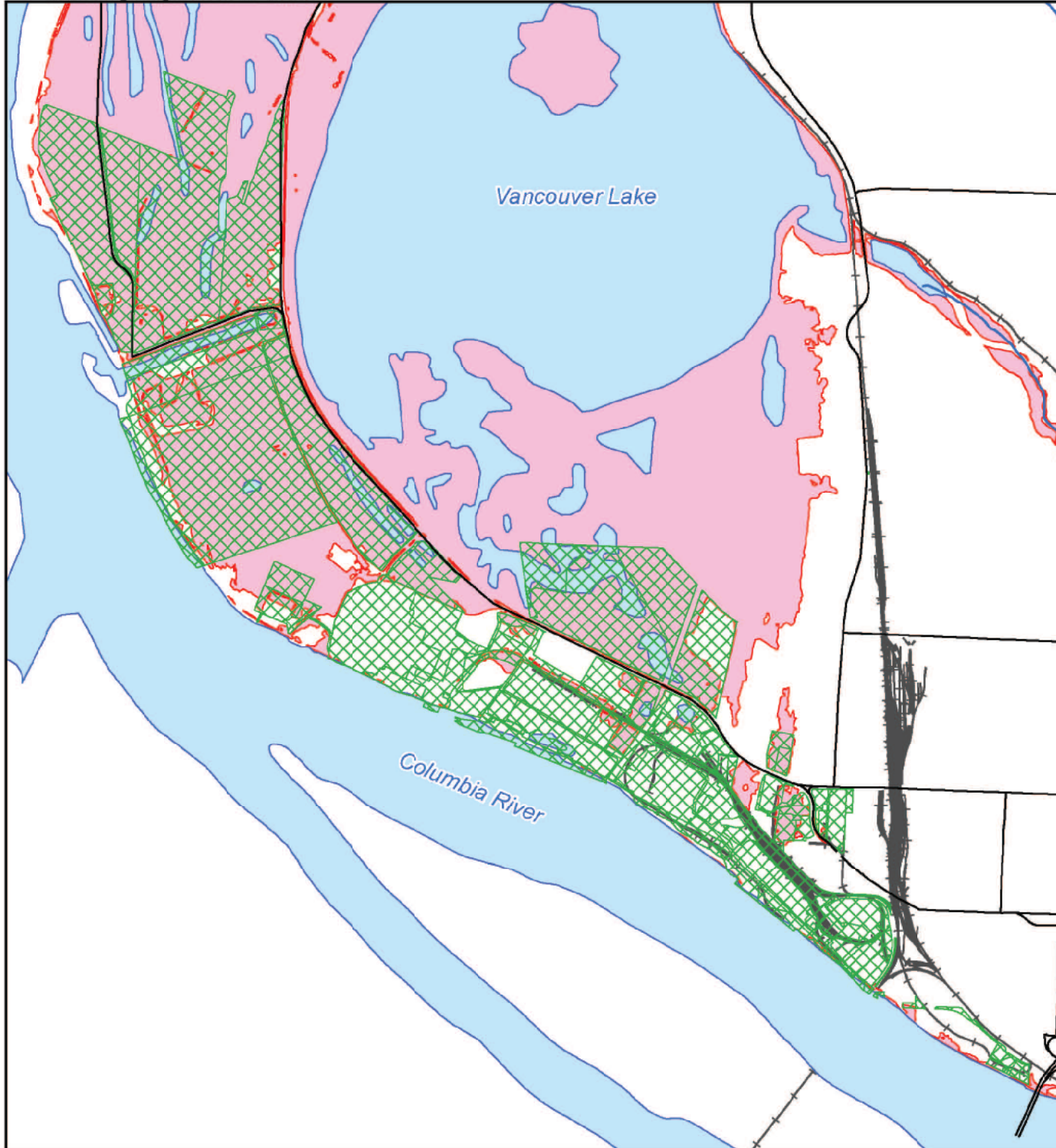




Figure 3
FEMA 2012 Flood Plain Map



-  Port of Vancouver Parcels
-  100 Year Flood Plain

0 Feet 3,500

