



## DETERMINATION OF NONSIGNIFICANCE

**TITLE OF PROPOSAL:** South Magnolia Combined Sewer Overflow Control project

**DESCRIPTION OF PROPOSAL:** To meet the combined sewer overflow (CSO) control standard of the National Pollutant Discharge Elimination System permit for the West Point Treatment Plant, the King County Wastewater Treatment Division proposes to construct an underground storage tank, associated ancillary equipment facility, and gravity sewer to store CSOs. Construction of the proposed CSO control facilities will begin in 2013 and take approximately two and one-half years to complete.

**LOCATION OF PROPOSAL, INCLUDING STREET ADDRESS, IF ANY:** The project site is located in the South Magnolia Basin in the City of Seattle, in King County, Washington. The Magnolia CSO Structure is located on the east side of 32nd Avenue West and the gravity sewer alignment will follow Magnolia Boulevard and West Galer street east to 23rd Avenue West and West Garfield where the proposed tank and ancillary equipment facility will be located. The proposed storage tank and ancillary equipment facility will be located either on Seattle Parks Department property at Smith Cove Park on the west side of 23rd Avenue West or on Port of Seattle property on the east side of 23rd Avenue West.

**SEPA 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:**

5-16-11

**Signature:**

*Pam Elardo for P. Elardo*

**Proponent and Lead Agency:**

King County Department of Natural Resources and Parks  
Wastewater Treatment Division

**Contact Person:**

Meredith Redmon, Water Quality Planner  
King County Wastewater Treatment Division  
201 South Jackson Street, MS KSC-NR-0505  
Seattle, WA 98104  
phone: 206-263-6534; e-mail: meredith.redmon@kingcounty.gov

**Issue Date:**

May 23, 2011

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 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 (DNS) 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 June 8, 2011.** Submit comments to Wesley Sprague, Supervisor, Community Services and Environmental Planning, King County Wastewater Treatment Division, 201 South Jackson Street, MS KSC-NR-0505, Seattle, WA 98104-3855.

☒ The Director of King County Department of Natural Resources and Parks, consistent with King County Public Rule 7-4-1, Section 6.2.14 and RCW 43.21C.240, has determined that the environmental impacts identified in the SEPA environmental checklist for the South Magnolia CSO Control Project will be adequately addressed by the development regulations and other applicable requirements of the City of Seattle and by all other applicable state and federal regulations referred to in the environmental checklist for the South Magnolia CSO Control Project. Therefore, no administrative appeal of issuance of the DNS will be allowed for the South Magnolia CSO Control Project. The rule may be viewed <http://www.kingcounty.gov/operations/policies/rules/utilities/put741pr.aspx> or contact Meredith Redmon, Water Quality Planner, at 206-263-6534 or [meredith.redmon@kingcounty.gov](mailto:meredith.redmon@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.]



## **King County**

Department of Natural Resources and Parks

### **Wastewater Treatment Division**

King Street Center, KSC-NR-0505

201 South Jackson Street

Seattle, WA 98104

## **Environmental Checklist**

**for the**

# **South Magnolia Combined Sewer Overflow Control Project**

**May 23, 2011**

Prepared in compliance with the State Environmental Policy Act (SEPA) (RCW 43.21C), the SEPA Rules (WAC 197-11), and Chapter 20.44 King County Code, implementing SEPA in King County procedures.

This information is available in accessible formats upon request at 206-684-1280 (voice) or 711 (TTY).

## ENVIRONMENTAL CHECKLIST

### A. BACKGROUND

**1. Name of proposed project, if applicable:**

South Magnolia Combined Sewer Overflow Control Project

**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 St.  
Seattle, WA 98104

Contact: Meredith Redmon, 206-263-6534

**4. Date checklist prepared:**

May 9, 2011

**5. Agency requesting checklist:**

King County Department of Natural Resources and Parks  
Wastewater Treatment Division

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

Proposed construction is anticipated to begin in 2013 and will last for approximately 2.5 years.

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

None.

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

Archeological and Historical Resources in the South Magnolia Sub-Basin, Seattle, Washington, Cascadia Archeology, November 2, 2009.

Environmental Conditions Technical Memorandum, South Magnolia Basin Puget Sound CSO Project, ESA Adolfson, April 23, 2010.

Environmentally Critical Areas Technical Memorandum, South Magnolia Basin Alternative 1F1 Barton, Murray, Magnolia, and North Beach CSO Project, ESA Adolfson, January 24, 2011.

Land Use and Recreation Technical Memorandum, South Magnolia Basin Alternative 1F1 Barton, Murray, Magnolia, and North Beach CSO Project, ESA Adolfson, January 24, 2011.

Preliminary Geological/Geotechnical Evaluation of Magnolia Combined Sewer Overflow (CSO) Alternatives, Seattle, Washington, Shannon and Wilson, Inc. December 1, 2009

South Magnolia CSO Facility Engineering Report, Draft, Carollo Engineers, December 2010

Traffic Technical Memorandum, South Magnolia Basin Alternative 1F1 Barton, Murray, Magnolia, and North Beach CSO Project, ESA Adolfson, January 24, 2011.

Wetland Delineation Report, South Magnolia Basin Alternative 1F1, ESA Adolfson, March 28, 2011

9. **Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

None.

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

City of Seattle DPD:

Master Use Permit

Construction Noise Variance (if needed)

City of Seattle SDOT:

Street Use Permit

Utility Permit (Major) or Street Improvement Permit

City of Seattle Parks and Recreation:

Revocable Use Permit

King County

Industrial Waste Discharge Permit (construction dewatering)

Washington State Department of Ecology

NPDES Permit (construction dewatering)

Underground Storage Tank Notification

- 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 construct a storage tank, associated ancillary equipment facility, and gravity sewer to store combined sewer overflows (CSOs) from the South Magnolia Basin in the City of Seattle.

As part of King County's National Pollutant Discharge Elimination System (NPDES) permit for the West Point Treatment Plant (WPTP), State of Washington standards require controls to reduce CSOs to an average of no more than one per year per location based on a long term average. To meet this control standard the proposed project installs the improvements to King County's sewer system serving the South Magnolia Basin combined sewer system described in this checklist. These improvements will meet the standard by storing combined sewage during high flow periods (i.e., storms) and then discharging it back into the sewer system when flows in the system have subsided.

The 744-acre South Magnolia Basin sewer system was originally constructed as a combined (wastewater and stormwater) system, but modifications have been made to the system over time and some sections of the system have been partially separated. WTD's South Magnolia Trunk Sewer (SMTS) was constructed in 1969 and conveys combined sewage flows from the South Magnolia basin to the Interbay Pump Station for conveyance to the WPTP. When heavy rains cause flows to exceed the 4.3 million gallon per day (mgd) capacity of the SMTS, a combination of stormwater and diluted sewage overflow from the fixed weir in the Magnolia CSO Control Structure (MAGCSO) to an overflow sewer and then to an outfall in Puget Sound (Figure 1). Over the last 20 years there has been an average of 19 overflows per year at the MAGCSO structure with an average total volume of 20 million gallons per year.

The proposed South Magnolia CSO Control Facility will be integrated with the existing SMTS system and consist of an approximately 1.8 million gallon (MG), rectangular, below-grade, cast in place, CSO storage tank with an ancillary equipment facility, and 2,700 linear feet (LF) of 24-inch diameter gravity sewer (see Figure 1). A force main will connect from the storage tank to the existing SMTS to discharge flows

after a storm event. A diversion structure will be constructed in the existing MAGCSO structure to allow flows to enter the gravity sewer and flow to the storage tank.

#### Storage Tank and Ancillary Equipment Facility

The 1.8 MG storage tank and ancillary equipment facility will be located on property adjacent to 23<sup>rd</sup> Avenue West and West Garfield Street in Seattle, WA. The tank structure will have a total depth of approximately 23 feet and will be approximately 110 feet wide by 190 feet long. There will be at-grade paved areas on either end of the storage tank that will include access hatches, manholes, and lift slabs for access to equipment in the storage tank. The six access hatches on either end of the storage tank will each measure approximately 7.5 feet by 10 feet. A pump will be located in the storage tank, to discharge tank contents to the existing SMTS. An approximately 500-foot force main will run from the storage tank to the existing discharge manhole (see “Discharge to Existing Sewer”, Figure 1). The ancillary equipment facility associated with the storage tank, will be either a single story, approximately 50 foot by 90 foot above-grade structure or a below grade structure. The structure will house an odor control unit, utility water, electrical equipment, mechanical equipment, and a stand-by generator for power outages and other emergencies.

#### Gravity Sewer and MAGCSO Structure

The existing MAGCSO structure, located at approximately 6100 32<sup>nd</sup> Avenue West will be modified to include a diversion structure to convey flows to the gravity sewer and storage tank when flows exceed the capacity of the SMTS.

The 24-inch gravity sewer will convey flows from the modified MAGCSO structure to the storage tank. The gravity sewer will be installed using trenchless methods and cut and cover (trenching) construction methods and will be between 6 feet and 150 feet below ground surface (bgs). The section of the pipeline constructed using trenchless methods will be installed by drilling generally beneath Magnolia Boulevard and West Galer Street. Entry and exit portals will be required at each end of this section. Construction of the entry and exit portals and pipeline segments leading to the portals will use cut and cover construction methods. The pipeline alignment will generally follow existing street rights of way. The gravity sewer will require easements at the east and west ends of the alignment.

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 will 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 site is located in the South Magnolia Basin in the City of Seattle, in King County, Washington. The MAGCSO Structure is located on the east side of 32<sup>nd</sup> Avenue West and the gravity sewer alignment will follow Magnolia Boulevard and West Galer street east to 23<sup>rd</sup> Avenue West and West Garfield where the proposed tank and ancillary equipment facility will be located. The proposed storage tank and ancillary equipment facility will be located either on Seattle Parks Department (Parks) property at Smith Cove Park on the west side of 23<sup>rd</sup> Avenue West or on Port of Seattle (Port) property on the east side of 23<sup>rd</sup> Avenue West. Please see attached Vicinity Map and Figure 1.

## **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 topography of the site is varied. The steepest slope at the project site that may be impacted by construction is less than 10%.
- c. What general types of soils are found on the site? (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

The ridge of the eastern end of the South Magnolia Basin and project area is underlain by Vashon Till and Vashon Advance Outwash deposited during the last glaciations in the Puget Lowland. Locally, these dense soils are overlain by a relatively thin layer of recessional outwash and weathered topsoil zones. Boring logs obtained from the area indicate this thin layer of recessional outwash and weathered topsoil zones is loose to medium dense and is typically 0 to 2 feet thick; however, locally it may be 5 to 10 feet thick and may have as much as 25 feet of fill material placed over it. Near SW Magnolia Street and 29<sup>th</sup> Avenue W, post-glacial depression deposits consist of a mixture of soft peat and loose to medium dense silt and sand.

In the lower western part of the project area, the surficial deposit is primarily sand and gravel. This loose to medium dense soil covers glacial clay and till. Holocene (post glacial) beach deposits consisting of loose sand and gravel dominate the shoreline area. All of the steep slope areas in the South Magnolia Basin and project area are covered with colluviums (loose bodies of sediment) to depths of 3 to 10 or more feet. This deposit is the result of past landslide and erosional events on the slopes. In the vicinity of Smith Cove, the natural soils are covered with fill that is 10 to 20 feet thick.

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

The project area shows potential for liquefaction due to the nature of fill materials underlying the site. The Magnolia bluff area has a history of landslide activity and landslide debris has been indicated on the east slope of the Magnolia bluffs above the project site on the west side of 23<sup>rd</sup> Avenue West.

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

A total of approximately 40,000 cubic yards of soil will be excavated during construction of the proposed storage tank and approximately 13,000 cubic yards of fill materials will be imported to backfill the excavation. Approximately 6,000 cubic yards of soil will be excavated during construction of the proposed ancillary equipment facility and approximately 1,500 cubic yards of fill material will be imported to backfill the excavation if the facility is located above ground. Excavation quantities associated with the entry and exit portals for the gravity sewer could range between 3 and 10 cubic yards per portal depending on the selected trenchless construction method. The imported fill materials used to backfill excavations will generally consist of crushed rock, gravel, or controlled density fill. Imported fill material will be obtained from local commercial sources. Material excavated from the site will likely be unsuitable for fill and will be removed from the site and properly disposed of at an approved facility.

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

Some erosion could occur during excavation activities, but, erosion control measures will be used to minimize this potential. See section B.1.h. below for typical Best Management Practices and other measures that could 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)?**

Access hatches, lift slabs, and manholes associated with the proposed storage tank will result in an approximately 4 percent increase in impervious surface at the site.

- 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 prior to clearing, grading, or excavation activities.



The project area avoids landslide debris areas in the project vicinity and combines the use of trenchless construction methods for the gravity sewer with the use of shoring/dewatering/ground improvements on the storage tank site to minimize the likelihood of soil movement in the area. Engineering controls will be applied to any excavation activities that take place in unstable soils to minimize the potential for movement of those soils. These controls will be included in project plans and construction specifications.

Typical Best Management Practices (BMPs) that could be used 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 solids;
- 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 the City of Seattle.

## **2. Air**

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

Construction of the proposed project could result in short-term dust emissions from exposed soils and fossil fuel emissions from construction equipment. During project operation, the backup generator located in the ancillary equipment facility will be operated on an as needed basis and produce diesel fuel emissions.

It is possible that odors associated with the operation of the completed project will be noticeable in the project area, although the potential for odor will be minimized and mitigated through several design features (see section B.2.c).

A King County Green House 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:**

Short-term construction related air pollutant emissions will be addressed by requiring proper maintenance of construction equipment, using electrically powered construction equipment where feasible, and avoiding prolonged idling of vehicles. Spray water may be used to minimize dust if necessary.

The standby power generator used to operate the ancillary equipment during power outages, will use a diesel engine designed to minimize the discharge of gaseous pollutants to the atmosphere. The engine will meet a minimum of Environmental Protection Agency (EPA) non-road tier one diesel engine emissions requirements.

King County uses odor control throughout the wastewater system to limit nuisance emissions. Odor control for the South Magnolia CSO Control project will consist of one or more carbon absorption scrubber vessels, mist eliminator, and fans in the ancillary equipment facility.

### **3. Water**

**a. Surface:**

- 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, or wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

The marine shoreline of Elliott Bay is in the project vicinity, approximately 275 feet south of 32<sup>nd</sup> Avenue West and within 200 feet of 23<sup>rd</sup> Avenue West. Wolf Creek was at one time located in a ravine to the east of 32<sup>nd</sup> Avenue West, however the stream is now entirely piped and integrated into the stormwater system through the project vicinity.

Wetland A (Figure 2) is a 0.213-acre Category IV Palustrine Forest wetland located on a ravine hillslope to the east of 32<sup>nd</sup> Avenue West and west of Magnolia Park.

- 2) Would the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

Depending on the location of the storage tank and ancillary equipment facility construction may take place within 200 feet of Puget Sound.

- 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 will be affected. Indicate the source of fill material.**

During design development, options to avoid wetland impacts and to minimize wetland buffer impacts will be developed. However, because of the highly constrained location for the work on 32<sup>nd</sup> Avenue West, excavation work is likely to take place in the 50 foot buffer of Wetland A and possibly in Wetland A to set up a staging area and portal for trenchless construction activities.

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

No.

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

The shoreline bordering the project area lies within a 100 year flood plain.

- 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:**

- 1) **Would ground water be withdrawn, or would water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.**

Groundwater will be encountered during open excavation for the proposed storage tank and for the entry and exit portals for installation of the gravity sewer using trenchless construction methods. Groundwater will need to be withdrawn from excavations during construction. This water (dewatering water) will be discharged to either the King County sewer system or existing storm drainage systems in the City of Seattle. No groundwater withdrawals will occur once construction has been completed.

- 2) **Describe waste material that would 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.**

Small spills or leaks of motor oil, diesel fuel, or hydraulic fluid could occur during construction. See item B.3.d. below for measures to minimize potential for these materials to be discharged to the ground.

**c. Water Runoff (including storm water):**

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

The source of runoff during and after construction will be rainfall. Runoff on the site currently enters a storm drainage system that discharges to Puget Sound. This will continue to be the case when the project is complete. Runoff control measures during and after construction will comply with the City of Seattle's stormwater management requirements.

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

Soils could enter surface waters if proper BMPs are not implemented. Construction-related materials could enter ground or surface waters due to accidental spills, mechanical failures, or if construction activities deviate from the project specifications or permit conditions.

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

Erosion and sedimentation control BMPs will be used during construction to reduce and control stormwater runoff impacts. Examples of typical BMPs that will be used during construction are presented in section B.1.h.

Additional construction BMPs that could be implemented to prevent introduction of contaminants into surface 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 keeping 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 handling of a spill.
- Dewatering water will be monitored and discharged to the King County sewer system or existing local storm drainage systems, depending in part on the quality of the dewatering water. Discharges of dewatering water directly to the storm drainage system will be routed through a settling tank, if necessary, to reduce turbidity.

The proposed project includes implementation of Green Stormwater Infrastructure BMPs to the maximum extent feasible. These BMPs will include the use of permeable surfacing and bioretention planters for stormwater control and treatment at the project site.

The project itself is a measure to reduce surface water impacts. The purpose of the proposed project is to reduce the frequency and volume of wastewater discharges to Puget Sound from the South Magnolia basin as a result of CSOs.

#### **4. Plants**

##### **a. Check or circle 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  
☒ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other  
☐ water plants: water lily, eelgrass, milfoil, other  
☒ other types of vegetation: turf grass

##### **b. What kind and amount of vegetation would be removed or altered?**

The potential storage tank sites are either not vegetated or are covered in turf grass; this vegetation will be removed during construction. Vegetation near the MAGCSO structure that is off the existing street and in the construction area

will be removed. Existing vegetation at this location consists of deciduous trees, grasses, and wet soil plants.

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

None known.

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

Landscaping will be consistent with City of Seattle standards.

**5. Animals**

**a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:**

birds: hawk, heron, eagle, songbirds, other: \_\_\_\_\_

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

fish: bass, salmon, trout, herring, shellfish, other: \_\_\_\_\_.

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

Puget Sound is in the project vicinity and contains numerous threatened and endangered species.

Common Name	Scientific Name	ESA Status	Jurisdiction
Puget Sound ESU Chinook Salmon	Oncorhynchus tshawytscha	T	NMFS
Puget Sound DPS Steelhead	Oncorhynchus mykiss	T	NMFS
Coastal-Puget Sound DPS Bull Trout	Salvelinus confluentus	T	USFWS
Canary Rockfish	Sebastes pinniger	T	NMFS
Yelloweye Rockfish	Sebastes ruberrimus	T	NMFS
Boccaccio Rockfish	Sebastes paucispinis	E	NMFS
Souther DPS North American Green Sturgeon	Thaleichthys pacificus	T	NMFS
Stellar Sea Lion	Eumetopias jubatus	T	NMFS
Humpback Whale	Megaptera	E	NMFS

	novaeangliae		
Souther Resident Killer Whale	Orcinus orca	E	NMFS
Marbled Murrelet	Brachyramphus marmoratus	T	USFWS

However, there are no threatened or endangered species known to be on or immediately adjacent to the project site.

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

The entire Puget Sound is part of the Pacific flyway migration route.

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

Construction of the proposed project will reduce the number of untreated sanitary sewage and stormwater discharges to Puget Sound from the South Magnolia wastewater basin, thereby reducing the potential for related adverse affects on aquatic life.

**6. Energy and Natural Resources**

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

Fossil fuels will power construction equipment. Electricity will be used to power drainage pumps, lighting, instrumentation and control mechanisms, and odor control units at the tank site.

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

No.

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

Energy use will be minimized by design of the storage tank to fill by gravity as opposed to requiring diverted wastewater to be pumped into the tank. Odor control units, lighting and other electrical uses will operate typically only when the tank is being used, probably for about 500 hours per year. The ancillary equipment facility will be designed for minimum heating to further reduce energy use.

## **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.**

Contaminated soil and groundwater could be encountered during construction activities.

- 1) Describe special emergency services that might be required.**

None.

- 2) 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. Any contaminated soil or water encountered will be removed from the project site and properly handled and disposed of at an approved facility. Project plans and specifications will include measures to safely handle contaminated soil or water in the event any contamination is encountered during construction.

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.

### **b. Noise**

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

None.

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

Short-term construction-related noise will be generated and include engine and mechanical equipment noises associated with the use of heavy equipment such as bulldozers, graders, loaders, excavators, drill rigs, and concrete mixers. This type of equipment typically generates noise in the range of 80-90 dBA at a distance of 50 feet. Installation of pilings to



support the storage tank may be required. Pile driving activities generate noise in the range of 95 to 110 dBA. Hauling activities to and from the project site will contribute to traffic noise.

Noise will also be generated during construction by pumps used to dewater the proposed storage tank site and entry and exit portal excavations. The pumps will generate noise levels measuring approximately 80 dBA at a distance of 23 feet. Exact noise levels would depend on the dewatering method used, which will be determined by the contractor, and the amount of dewatering required. The dewatering pumps will likely be powered by a generator that will create noise levels measuring up to 60 dBA at a distance of 23 feet.

Construction activity will take place during daytime hours. It is anticipated that nighttime construction activity will not be required. Dewatering pumps will run 24 hours per day during storage tank and portal excavations.

During operation, noise will be generated by equipment such as the odor control unit and effluent pumps. The standby diesel generator will run for very limited durations when maintenance occurs and during power outages.

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

During construction all activities will be performed consistent with the City of Seattle's Noise Control Ordinance. All impacts from noise generated by construction will be short-term and temporary in nature. Construction BMPs will be used to minimize construction noise. These could include:

- Using effective vehicle mufflers, engine intake silencers, and engine enclosures, and shutting off equipment when not in use;
- Locating activities away from sensitive receptors when possible;
- Using portable noise barriers placed around stationary equipment;
- Notify residents and businesses near active construction areas of upcoming noisy construction activities;
- 24-hour construction hotline to promptly respond to questions and complaints.

New equipment that generates noise will be enclosed in the ancillary equipment facility, thereby minimizing noise impacts resulting from operation of the proposed project.

**8. Land and Shoreline Use**

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

If the storage tank and ancillary equipment facility are located on Parks property they will be sited on property currently used as open space. If the storage tank and ancillary equipment facility are located on Port property they will be sited on property currently used for industrial purposes and open space. The gravity sewer alignment is partially in the City of Seattle right-of-way under Magnolia Boulevard West and West Galer Street. Surrounding land uses include industrial and open space used for parks at the east end of the alignment adjacent to the storage tank and ancillary equipment facility, and single family residential and open space at the west end of the alignment near the MAGCSO structure.

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

No.

**c. Describe any structures on the site.**

None.

**d. Would any structures be demolished? If so, what?**

Not applicable.

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

The current zoning classifications for the sites are single family residential (SF 7200) at the MAGCSO site, and General Industrial (IGI) at the storage tank and ancillary equipment facility site.

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

The current comprehensive plan designations for the site are, single family, major industrial institutions and public facilities/utilities, and parks and open space.

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

The current shoreline master program designation is Urban Industrial.

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

Yes. The western edge of the project alignment and the Magnolia Bluffs have been identified by the City of Seattle as containing potential and known landslide areas as well as steep slopes. A Category IV wetland is located on the east side of 32<sup>nd</sup> Avenue West.

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

No people will reside in the completed project. It is estimated that the completed project will be visited by King County staff once per month for operations and maintenance purposes.

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

None.

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

Not applicable.

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

The storage tank and ancillary equipment facility will be located on property that is zoned IG1 and they will be compatible with existing land uses. If the storage tank and ancillary equipment facility are located within the shoreline overlay zone a shoreline substantial development permit will be required. Modifications to the MAGCSO structure will take place within the structure and will be below grade.

## 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 antennae; what is the principal exterior building material(s) proposed?**

The footprint of the proposed ancillary equipment facility, if it's located above grade, will be approximately 50 feet by 90 feet and the height of the building will be approximately 20 feet. If the ancillary equipment facility is located below grade, several components will still be visible above grade. The tallest component associated with the ancillary equipment facility if it's located below grade will be approximately 6 feet above grade. These will include, access hatches, vent stacks, electrical transformers, and water piping and valves for backflow prevention. The design process for the ancillary equipment facility would follow City of Seattle policies and guidelines for incorporating aesthetic considerations into design.

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

The visual quality of the project area around the proposed storage tank and ancillary equipment facility will be temporarily altered during the approximately 30-month construction period. Temporary visual impacts during construction will include the presence of construction equipment, work crews, dust/exhaust, materials, signage, temporary fencing, staging areas in the construction zone, and traffic congestion along haul routes.

After the project has been completed the ancillary equipment facility will be noticeable, however, no views will be altered or blocked.

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

The design process for the ancillary equipment facility will follow City of Seattle policies and guidelines for incorporating aesthetic considerations into design.

## **11. Light and Glare**

**a. What type of light or glare would 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 and end of the work day.

The proposed ancillary equipment facility will have exterior security lighting that could result in light being visible from the facility. This would occur mainly during nighttime hours.

**b. Could light and 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.

Full cutoff, low-intensity, light fixtures will be used for the ancillary equipment facility's exterior security lighting. The use of highly reflective building materials and/or finishes in the design of the ancillary equipment facility exterior will be restricted.

**12. Recreation**

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

Several public open spaces and park uses are located in the project area. Bordering 32<sup>nd</sup> Ave West on the east is Magnolia Park, a Seattle Parks property that provides picnic areas and views of Puget Sound. The park is 12.1 acres in size, and is accessed from above the project site, along Magnolia Boulevard W. There is no access to active park uses from the project site on 32<sup>nd</sup> Ave. W.

Smith Cove Park is a 7.3-acre park located on the west side of 23rd Avenue West, south of the Magnolia Bridge. It includes a lawn area and provides views of Elliott Bay, Puget Sound, and the downtown skyline, and includes water frontage bordered by a riprap seawall. Uses of the lawn area include soccer and other sports.

Open Water Park is located south of the shoreline between Elliott Bay Marina and Pier 91. It includes water and tidelands, and provides open water access and views.

In addition to Park's parks, the Port maintains two facilities for outdoor use and recreation in the project vicinity: Smith Cove Marina Park at Terminal 91, and the Terminal 91 Bike Path. Smith Cove Marina Park at Terminal 91 is a 1-acre open space park with 520 linear feet of shoreline located on the east side of 23rd Avenue West. The Terminal 91 Bike Bath is a 4,000-foot paved path that allows bicyclists to reach the Smith Cove Park area from Thorndyke Ave West and West Galer Street.

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

The storage tank and ancillary equipment facility will be located adjacent to 23rd Avenue West either at Smith Cove Park or on Port property north of Smith Cove Marina Park at Terminal 91.

If the storage tank, ancillary equipment facility, and entry or exit portal for the gravity sewer are located at Smith Cove Park the park will be closed to the public during construction. The area required for the portal associated with the gravity sewer pipeline on the eastern end of the alignment could also be located at Smith Cove Park, resulting in the park being closed during construction. When the park reopens after construction, it will have been reconfigured to accommodate the storage tank and ancillary equipment facility while maintaining a section of the park for activities including soccer and other sports.

The construction of the facility on Port property could result in the Terminal 91 Bike Path being temporarily relocated during construction. Access to Smith Cove Marina Park could also be limited at times as a result of construction activities.

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

During construction BMPs will be implemented to minimize noise (see B.7.b.3) and traffic control measures will be implemented to ensure safe access to recreation areas in the vicinity of the project. If the storage tank and ancillary equipment facility are located on Parks property King County will work with Parks to minimize the project's impacts during construction and operation of the facility. Measures taken during construction activities could include relocating formal athletic field users and providing public notification of activities affecting recreational areas. If the storage tank and ancillary equipment facility are located on Port property King County will work with the Port to relocate the the Terminal 91 Bike Path during construction.

**13. Historic and Cultural Preservation**

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

Yes. The Admiral's House located near the east end of the alignment is listed as a historic landmark by the City of Seattle. The project will not impact the house.

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

Existing inventoried historic and archaeological resources were documented throughout the South Magnolia sub-basin; in addition, the sub-basin was geographically assessed for probability of archaeological resources. There are no known archaeological sites or historic structures on or near the proposed project site. Based on site characteristics and location, the project area near 23<sup>rd</sup> Avenue West has a high probability of containing archaeological or cultural resources, while the location of the MAGCSO and diversion structure near 32<sup>nd</sup> Avenue West have a low probability of containing archaeological or cultural resources.

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

Construction specifications will include language providing for proper treatment of historic or archaeological materials if they are encountered. If artifacts are uncovered during excavation, work will be stopped pending notification of and response from appropriate agencies.

**14. Transportation**

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

The project area can be accessed from Magnolia Boulevard West, 28<sup>th</sup> Avenue West, or Thorndyke Avenue West, West Galer Street, and the Magnolia Bridge. Access to the construction area will primarily be from West Galer Street, West Garfield Street, and 23<sup>rd</sup> Avenue West.

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

Yes. King County Metro Transit provides bus service to the area. The nearest transit stop is located at the intersection of West Galer Street and Thorndyke Avenue West on the west side of the street. Additional transit stops are located to the north and south of this stop. Bus routes serving the project area are 19, 24, 31, and 33.

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

The completed project will have a few parking spaces to accommodate maintenance vehicles at the storage tank site and near the ancillary equipment facility. Street parking along 32<sup>nd</sup> Avenue West and 23<sup>rd</sup> Avenue West will be temporarily disrupted for up to six months during construction.

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

No 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 in accordance with city guidelines.

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

No.

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

Construction will require hauling of excavated soil from the site and delivery of construction materials by truck to the site. The project will generate on average, about twenty one-way vehicle trips per day during the six month excavation period and less than ten one-way trips during the remainder of construction. The number of trips will be dependent on contractor planning and sequencing and could increase for short periods of intense construction activity. Additional vehicular trips will occur related to materials delivery, as well as workers arriving and departing the site.

The completed project will generate up to 2 vehicular trips per month for maintenance purposes.

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

A street use right-of-way permit will be required from the City of Seattle to construct the proposed project. Permit conditions will require a traffic control plan to be submitted and approved prior to the start of construction. Contractors will be required to comply with a traffic control plan approved by the City. The plan will include the locations of traffic control devices, signage, and measures to address residential access, emergency vehicle access, road closures and detours, temporary bus route changes, and pedestrian safety. Potential measures that could be implemented include: protective barriers, fences, flaggers, foot and/or vehicle bridges, and steel plating, among others. The specifics of the plan will be tailored to provide the safest measures practicable for each specific situation. Long-term transportation impacts are not anticipated as a result of the South Magnolia CSO Control Project.



King County will provide advanced notification of construction activity to all residences and businesses adjacent to the construction area. Advance notification will include posting signage at the site, as well as written notification to residences and businesses. The notification will include the name and phone number of the King County staff person to be contacted regarding questions or concerns about construction activity.

**15. Public Services**

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

No.

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

.Not applicable

**16. Utilities**

- a. **Circle the 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.**

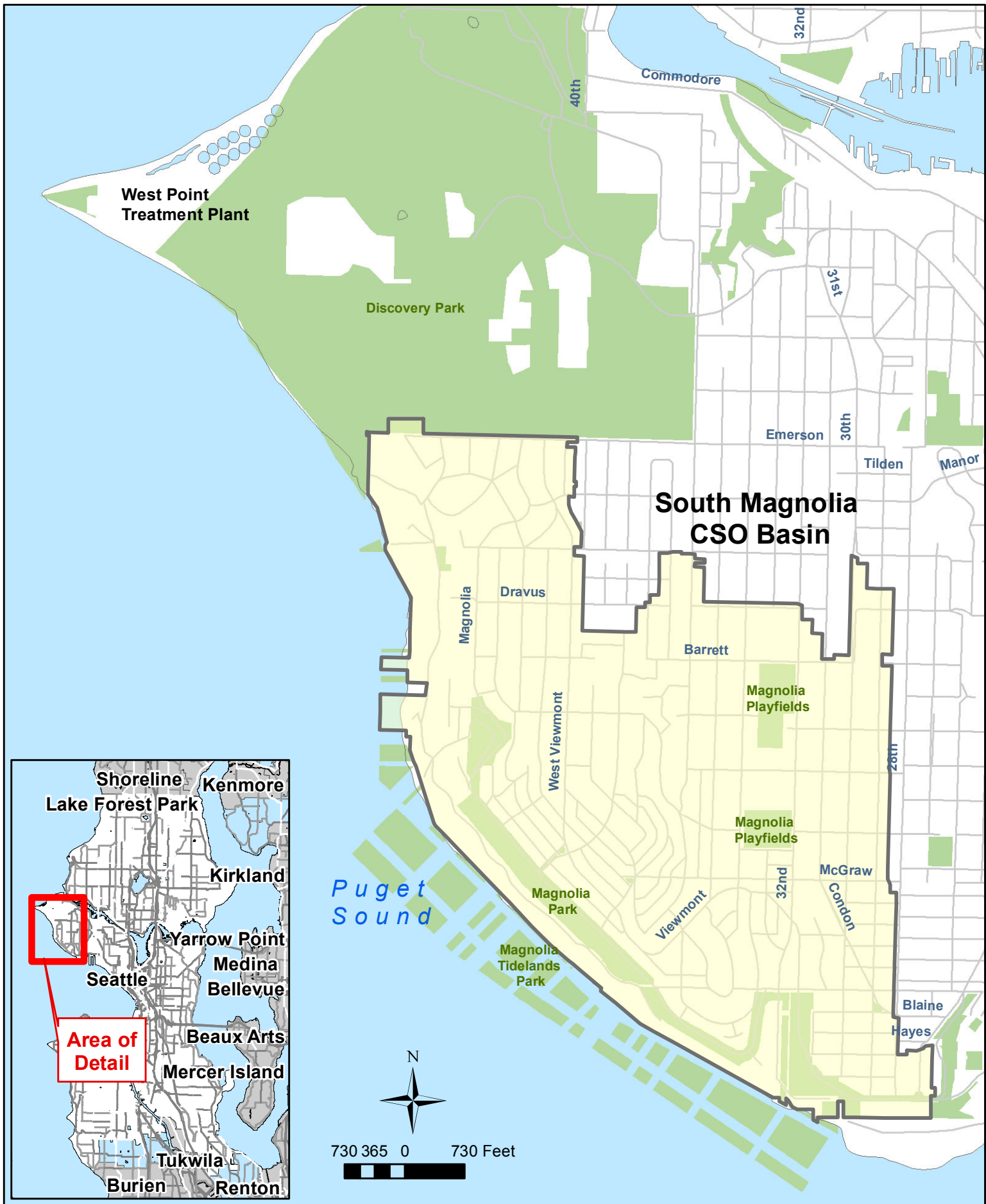
The completed project will use water and electricity provided by the City .

**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.**

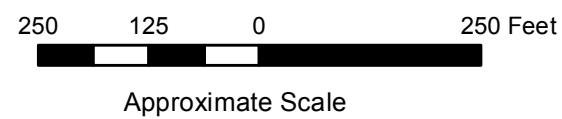
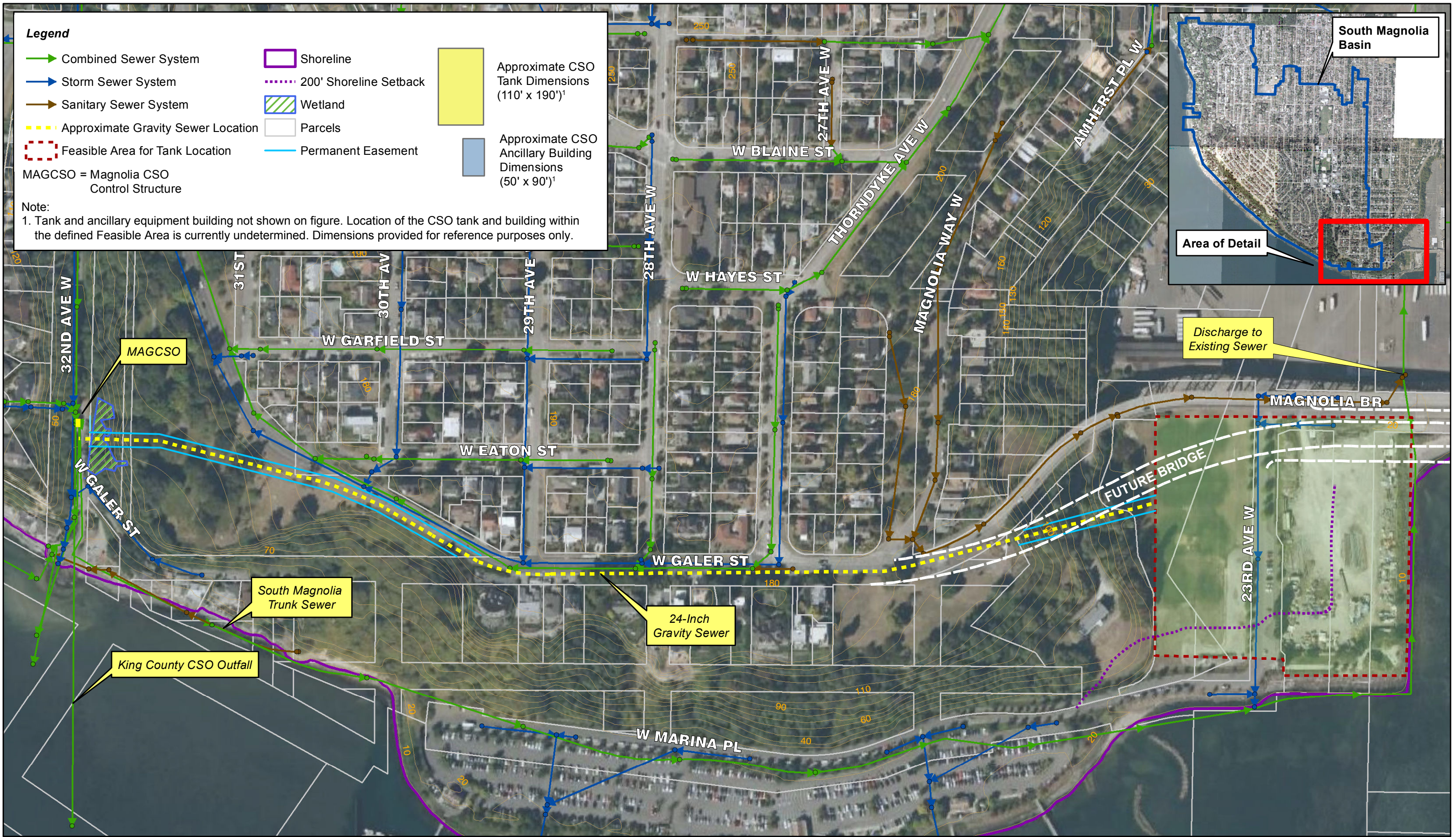
Signature: Wesley Sprague

Date Submitted: 5/13/11



**VICINITY MAP**  
**SOUTH MAGNOLIA CSO BASIN**  
**SEATTLE, WA**



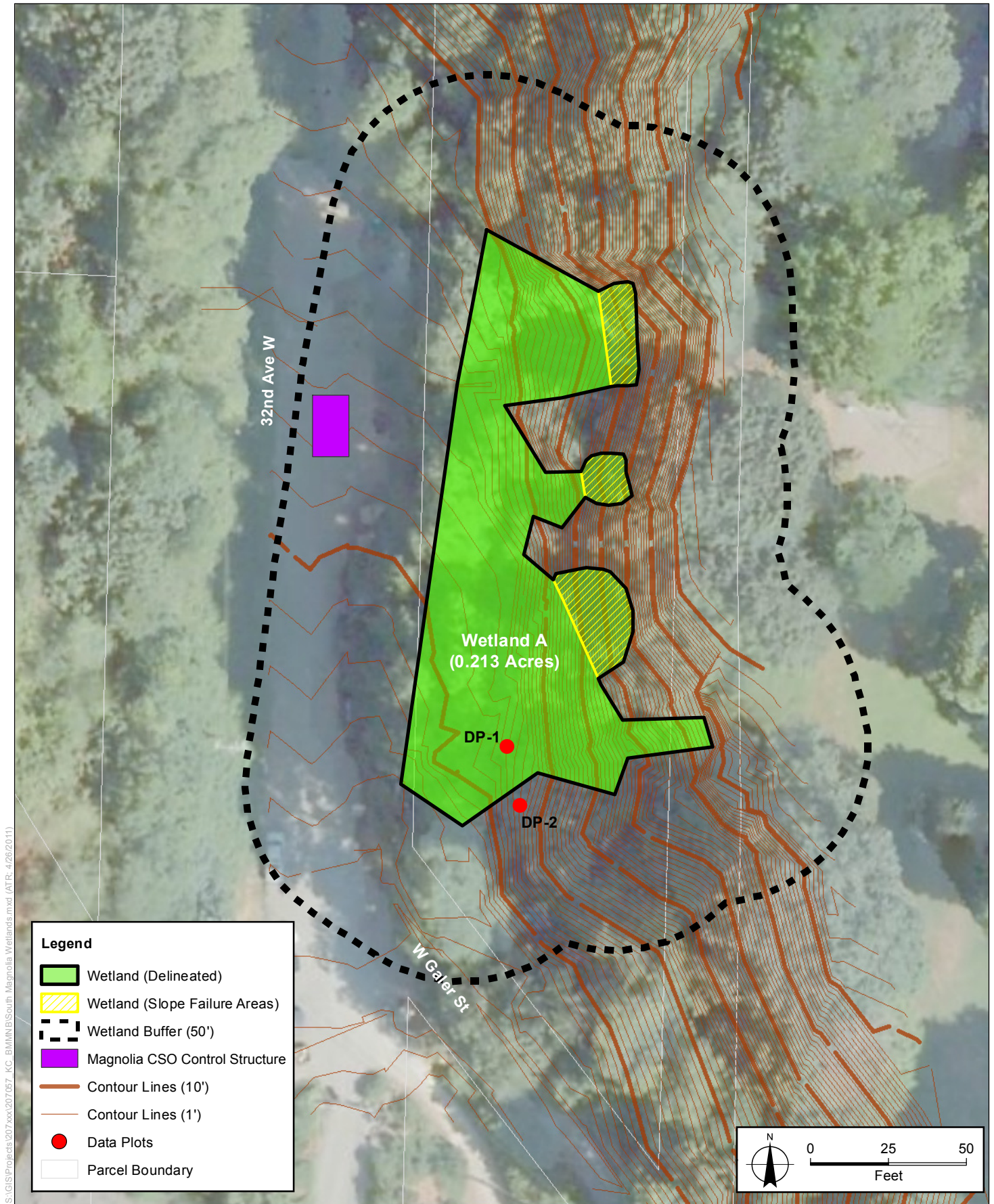


**King County**

Department of Natural Resources and Parks  
Wastewater Treatment Division

**FIGURE 1**  
**SITE LAYOUT PLAN**  
**SOUTH MAGNOLIA CSO BASIN**  
**SEATTLE, WA**





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SOURCE: ESA Adolphson, (2011); King County (2009); Lin & Associates, 2011; Bing, 2009 Approx (Aerial)



**King County**

Department of Natural Resources and Parks  
**Wastewater Treatment Division**

**FIGURE 2  
WETLANDS**

**SOUTH MAGNOLIA CSO BASIN  
SEATTLE, WA**

## 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 <sub>2</sub> e)			Lifespan Emissions (MTCO <sub>2</sub> 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 .....		5.0	39	1,278	257	7871
Vacant .....		0.0	39	162	47	0

## Section II: Pavement.....

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

**7871**