Wastewater Treatment Plant Habitat Management Plan

Prepared for

Gray & Osborne and

City of Sumner

September 2013

Prepared by

Parametrix

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Prepared for

Gray & Osborne, Inc. and City of Sumner

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September 2013 | 216-2564-012

CITATION

Parametrix. 2013. Wastewater Treatment Plant Habitat Management Plan. Prepared by Parametrix, Bellevue, Washington. September 2013.

CERTIFICATION

The technical material and data contained in this document were prepared under the supervision and direction of the undersigned.

Prepared by Jennifer Lundberg, CEP

Checked by Matt Maynard, Wetland Ecologist

Approved by Mike Hall, Wildlife Biologist

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KEY TERMS

dbh	diameter at breast height
ESA	Endangered Species Act
FIRM	Flood Insurance Rate Map
MGD	million gallons per day
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
OHW	ordinary high water
PHS	Priority Habitats and Species
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington State Department of Fish and Wildlife

1. INTRODUCTION

The Sumner Wastewater Treatment Plant (Sumner WWTP) project, referred to as the Phase 2 Expansion, is an expansion of the existing facility and is the next phase of an expansion started in 2005 to meet the needs of the service area and community for the next 20 years or more. For clarification, two alternatives are being considered; however, the alternatives are nearly identical regarding environmental impacts because all project elements are located within the existing facility footprint except for Secondary Clarifier No. 3. Comparison of the two alternatives is included in Table 1. Alternative B is the preferred alternative.

Table 1. Project Elements

Element	Map ID#	New construction?	Included in Alternative A	Included in Alternative B	Within the facility?	NPDES required?
Secondary Clarifier No. 3	6	Yes	Yes	Yes	Off site	Yes
Primary Clarifier No. 3		No	Remains decommissioned	Repurpose existing structure	On site	Yes
Aeration Basin No. 3	4	Yes	Yes	Yes	On site	Yes
Solids Storage Building	18	Yes	Yes	Yes	On site	Yes
Equipment Storage Building Eastside	19	Yes	Yes	Yes	On site	Yes
Centrate Storage Tank and Pump	8	Yes	Yes (New 30k gal tank Map ID 15)	Repurpose existing gravity thickener	On site	Yes
Solids Handling Building Truck Canopy	11	Expansion	Yes	Yes	On site	Yes
Grit Handling Building	17	Yes	In Equipment Building #3 (Map ID 5)	Yes	On site	Yes
Primary Sludge Gravity Thickener	16	Yes	No – use existing (Map ID 8)	New (16)	On site	Yes
Odor Control System No. 2	17	Yes	No – Existing (Map ID 14)	Yes (17)	On site	Yes
RV Dump Station	n/a	Yes	Yes	Yes	On site	No
Solids Transfer Station	n/a	Existing	Yes	Yes	On site	No
Recycling Center and Paving	n/a	Relocation	Yes	Yes	On site	No

The purpose of this Habitat Management Plan is to meet the requirements of City of Sumner Municipal Code Title 16.56.080. Portions of the Sumner WWTP are located within 200 feet of the Puyallup and White Rivers, which is within the 200-foot setback usually required for developments near water bodies. City of Sumner Municipal Code Title 16.56.080 requires development of a Habitat Management Plan for projects within 1,000 feet of fish and wildlife habitat conservation areas. The entire WWTP is located within 1,000 feet of the Puyallup and White Rivers.

City of Sumner Municipal Code Title 16.56.050 fish and wildlife habitat conservation areas include the following:

- Areas with which federal or state endangered, threatened, and sensitive species of fish, wildlife, or plants have a primary association.
- Areas with which state-listed monitor or candidate species or federally listed candidate species have a primary association, and that, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.
- Special habitat areas that may provide specific habitats which certain animals and plants require such as breeding habitat, winter range, and movement corridors.
- Naturally occurring ponds under 20 acres and the submerged aquatic beds that provide fish and wildlife habitat.
- Waters of the State.
- Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity.
- State natural area preserves and natural resource conservation areas.

The Puyallup and White Rivers are both waters of the State and provide habitat for federal and state endangered, threatened, and sensitive fish species, including Chinook salmon, steelhead trout, and bull trout. According to Priority Habitat and Species data provided by the Washington Department of Fish and Wildlife, no known locations of any other species that are afforded protection under City of Sumner Municipal Code Title 16.56.050 occur in areas that would be altered by project activities. This report, therefore, focuses on the potential for project activities to affect habitat for aquatic species in the Puyallup River and/or the White River.

2. PROJECT INFORMATION

2.1 PROJECT LOCATION

The Sumner WWTP is located at 13114 63rd Street East, Sumner, Washington 98390 near the confluence of the Puyallup and White Rivers, just west of downtown Sumner at LAT 47°11’58.46”N, LON 122°15’ 15.26” W in Section 23 of Township 20 North, Range 4 East. The project area is located entirely within the city limits of the City of Sumner. However, the location of the proposed Secondary Clarifier No. 3 is currently on Washington Department of Fish and Wildlife property and the City is in negotiations to acquire the property through an exchange. It is not known at this time when this exchange will be finalized.

2.2 PROJECT DESCRIPTION

The Sumner WWTP provides wastewater treatment for the cities of Sumner and Bonney Lake in addition to parts of Pierce County. The proposed expansion is expected to meet the wastewater treatment needs of the community through at least 2034. The current effluent rate is 4.6 million gallons per day (MGD); this will increased either to 5.41 MGD under Alternative A or to 6.10 MGD under Alternative B. No changes are proposed to the outfall in the White River.

All project construction elements are detailed in Table 1. Below provides additional information on project impacts as related to habitat on and adjacent to the WWTP. All project elements will be constructed within the existing facility footprint with the exception of Secondary Clarifier No. 3. This structure will be located adjacent to the existing secondary clarifiers on the southern portion of the facility. Construction of Secondary Clarifier No. 3 will require acquiring parcel 42500001281 from Washington State Department of Fish and Wildlife (WDFW). This location takes advantage of grade, hydraulics, and proximity for efficient WWTP operation. Other locations considered would require extra underground piping, ground disturbance, and likely would require additional pumping and energy expenditures to function properly in addition to still being partially or completely within the shoreline conservancy setback (200-foot setback from the floodway). The Secondary Clarifier No. 3, regardless of location, is 70 feet in diameter and will require approximately 4,000 square feet (sq ft) of excavation up to 30 feet deep.

Table 2 provides approximate project construction impacts including grading impacts for the construction of the different structures, not just the footprint of the structures. Other than Aeration Basin No. 3, all structures will increase impermeable surface at the facility. In addition to the below quantities, there is approximately 6,000 sq ft of new paving or repaving throughout the facility, much of that associated with installation of the RV Dump Station and relocation of the Recycling Center.

Table 2. Project Construction Impacts within the Facility Floodwall

Project Element (Map ID)	Area of Impact Alt A (sq ft)	Area of Impact Alt B (sq ft)
Aeration Basin No. 3 (4)	14,000	14,000
Solids Storage Building (18)	4,800	4,800
Equipment Storage Building (19)	5,400	5,400
Centrate Storage Tank and Pump (8)	900	0
Solids Handling Building Truck Canopy (11)	Minor	Minor
Grit Handling Building (12)	0	900
Gravity Thickener (16)	0	1,600
Odor Control System No. 2 (17)	0	900
RV Dump Station	Minor (repaving)	Minor (repaving)
Solids Transfer Station	Existing 2,400 (40 ft by 60 ft)	Existing 2,400 (40 ft by 60 ft)
Recycling Center and Parking	Minor (new and repave)	Minor (new and repave)
Total	**27,500**	**30,000**

The project will increase impervious surface but the internal stormwater management system was sized to handle the increased flow from this planned expansion. The stormwater collected on the new Secondary Clarifier No. 3 dome will be directed for infiltration and over-land flow to the Puyallup River.

2.3 BACKGROUND INFORMATION

The Sumner WWTP was constructed in 1955 with subsequent upgrades in 1972, 1986, and 2003 to accommodate growth and expansion of the service area. The proposed upgrade will increase service life to at least 2034.

According to the Geotechnical investigation, there is 10 to 20 feet of fill throughout the site with extensive grading to create a generally flat location. A boring at the site of the proposed

Secondary Clarifier No. 3, found approximately 12 feet of fill. During the ordinary high water (OHW) delineation, Parametrix found no evidence of fill at the shore.

2.3.1 Endangered, Threatened, and Sensitive Species

No Endangered Species Act (ESA) listed or state-listed endangered, threatened, or sensitive species have been documented at the project site, nor have any species on the Washington State Species of Concern List (WDFW 2013). As noted above, the Puyallup and White Rivers adjacent to the project site provide aquatic habitat for several ESA-listed or state-listed species. In addition, aquatic habitats in the Puyallup and White Rivers are considered priority habitats in general for biodiversity. Table 3 lists species identified by the Washington Department of Wildlife Priority Habitats and Species (PHS) Program as occurring in the Puyallup and/or White Rivers, the ESA listing status, and the use of the White and Puyallup Rivers adjacent to the proposed project site. Appendix B contains the list of ESA-listed species for Pierce County (USFWS 2013a). Except for bull trout, the species on that list are not known or expected to use habitats within or near the project site and are more likely to be found in more rural portions of the county. Appendix B also identifies ESA-listed anadromous fish species under the jurisdiction of the National Marine Fisheries Service (NOAA 2013). Anadromous fish species do not use the project site but use the Puyallup and White Rivers for migration, rearing, and spawning.

Table 3. WDFW Priority Habitat and Species List of Species Identified within 0.5 Miles of the Project Site (PHS 2013; USFWS 2013a; NOAA 2013)

Common Name	Scientific Name	ESA Listing Status	Habitat Use in Project Vicinity
Coast resident cutthroat trout	*Oncorhynchus clarkii*		Migration
Chinook salmon	*O. tshawytscha*	Threatened	Migration and rearing
Chum salmon	*O. keta*		Migration
Coho salmon	*O. kisutch*		Migration and rearing
Pink salmon	*O. gorbuscha*		Migration and spawning
Sockeye salmon	*O. nerka*		Migration
Steelhead trout	*O. mykiss*	Threatened	Migration
Bull trout	*Salvelinus confluentus*	Threatened	Migration

2.3.2 Other Reference Maps

Parametrix reviewed the following to confirm information in the SEPA checklist prepared for this project as it relates to the Habitat Management Plan:

- USFWS National Wetland Inventory (USFWS 2013b).
- National Flood Insurance Map, FIRM 530147-0005-D, Revised June 18, 1987 (FIRM 1987).
- USDA Soil Survey (NRCS 2013).

3. HABITAT AND SPECIES USE OF THE PROJECT SITE

In addition to a review of existing habitat data from aerial photography (Google Earth 2013) and various agencies mapping and data websites, Parametrix identified habitat and species use based on a biologist's field visit conducted on September 3, 2013.

3.1 GENERAL PROPERTY DESCRIPTION AND SURROUNDING LAND

The project area is located at the confluence of the White and Puyallup Rivers. The area is characterized as flat with alluvial gravel (river bed) deposits. Levees and flood control berms protect the WWTP from flooding. Onsite, the facility has a mixture of paved, gravel, and grassed/landscaped surfaces with few trees. To the south are grassed areas with mature deciduous trees and the Puyallup River. To the north is a narrow strip of shoreline with gravel and mature deciduous trees along the White River and the access road to the facility. State Highway 410 crosses the White River to the northeast of the project site. To the east are two residential properties and State Highway 410. To the west is the confluence of the White and Puyallup Rivers. The Puyallup River Trail follows the river shoreline around the WWTP.

3.2 HABITAT AREAS

There is little habitat potential within the limits of the existing WWTP facility. Landscaping is purposefully limiting in suitable habitat other than resting for small birds.

The adjacent habitat is primarily riparian, dominated by grasses, shrubs, and deciduous trees. The dominant species of vegetation located between the WWTP facility and the Puyallup and White Rivers are typical of riparian habitat in the Puget Sound Trough and include black cottonwood (*Populus balsamifera*), snowberry (*Symphoricarpos alba*), and scouring rush (*Equisetum hymale*). Other species observed are beaked hazelnut (*Corylus cornuta*), common velvetgrass (*Holcus lanatus*), Himalayan blackberry (*Rubus armeniacus*), red alder (*Alnus rubra*), big-leaf maple (*Acer macrophyllum*), Sitka willow (*Salix sitchensis*), and common rush (*Juncus effusus*). Per the National Wetland Inventory, no wetlands are located within or adjacent to the project site except for the rivers (USFWS 2013). This was confirmed by the City of Sumner Wetland Biologist because of the course soils that drain well and do not allow for wetland hydrology or the development of hydric soils.

Also related to Secondary Clarifier No. 3, up to 5,000 square feet of vegetation located east of the existing clarifiers is a mix of maintained lawn and deciduous forest. The maintained lawn is dominated by typical lawn grasses and white clover (*Trifolium repens*). The forested portion of the area is dominated by black cottonwood, Himalayan blackberry, and snowberry. Other species observed in the area include beaked hazelnut, reed canarygrass (*Phalaris arundinacea*), red alder, Oregon ash (*Fraxinus latifolia*), Scot's broom (*Cytisus scoparius*), and California blackberry (*Rubus ursinus*). The black cottonwood trees have an average diameter at breast height (dbh) of approximately 24 inches. The invasive species (Himalayan blackberry and Scot's broom) are typically located near the paved trail. Snags, which can provide habitat for birds, small mammals, and other wildlife were observed in the area as well.

The footprint of disturbance will be minimized to protect natural screening along the Puyallup River Trail. A lawn and landscaped area will also be cleared for construction of the proposed Equipment Storage Building (Map ID #19) and Solids Storage Building (Map ID# 18). All other ground disturbance for construction is in areas with gravel and asphalt. The area around Secondary Clarifier No. 3 will be planted with native vegetation meeting the City of Sumner landscape code.

3.2.1 Wildlife Species

Upland animal species that may use the project site and the adjacent uplands include species commonly found in urbanized areas that have adapted to a wide variety of conditions. Characteristic species include European starlings (*Sturnus vulgaris*), American robins (*Turdus migratorius*), American crows (*Corvus brachyrhynchos*), dark-eyed juncos (*Junco hymalis*), spotted towhees (*Pipilo maculatus*), house finches (*Carpodacus mexicanus*), house sparrows (*Passer domesticus*), black-capped chickadees (*Poecile atricapillus*), Virginia opossums (*Didelphis virginiana*), raccoons (*Procyon lotor*), deer mice (*Peromyscus maniculatus*), and Norway rats (*Rattus norvegicus*). Some wildlife species were observed within or in the vicinity of the project area during the site visit, including American crow, gulls (*Larus sp.*), and black-capped chickadee.

3.2.2 Aquatic species

The Puyallup and White Rivers provide riverine habitat to resident and migratory fish (Table 3) in addition to providing habitat for species that prey on aquatic species.

3.3 OCCURRENCE OF OTHER LISTED SPECIES

Appendix B contains the list of ESA-listed species in Pierce County under the jurisdiction of USFWS. Except for bull trout, these species are not known or expected to use habitats within or near the project site and are more likely to be found in more rural portions of the county.

Appendix B also identifies ESA-listed anadromous fish species under the jurisdiction of the National Marine Fisheries Service. Anadromous fish species do not use the project site but use the Puyallup and White Rivers for migration, rearing, and spawning (Table 3).

4. IMPACTS ANALYSIS

The proposed project would not have direct impacts on listed fish, wildlife, or plant species. There would be no indirect impacts on listed wildlife or plant species because none are located on or in the vicinity of the project.

4.1 FISH SPECIES

Operation of the WWTP may have indirect effects on listed fish species due to the discharge of stormwater and treated wastewater. The risk will occur only during large rain events in the service area or in the case of a system failure at the plant with the plant becoming overloaded and unable to process the effluent. This risk will remain at generally the same level as under current conditions, with a potentially lower risk at least in the near future as capacity increases. The risk of system failure will rise again as volumes increase and the facility reaches the end of the planning period for the current upgrade.

Impervious surfaces after construction are expected to increase by approximately 18,100 sq ft for Alternative 2B including new pavement. Impervious surfaces are expected to increase by approximately 16,800 for Alternative 2A. Other than the Secondary Clarifier No. 3, all new impervious surface stormwater will be directed into the WWTP. Secondary Clarifier No. 3 stormwater will be collected and land applied adjacent to the structure.

Project construction is not expected to result in water quality impacts due to increased runoff from impervious surfaces. The proposed construction of the Secondary Clarifier No. 3 will add approximately 3,900 square feet of impervious surface at the project site. The stormwater

from this structure will be captured on the dome and discharged to the south of the structure through infiltration and over-land discharge to the Puyallup River. The volume of flows in the river will dilute increased levels of any pollutants from the new impervious surface to levels indistinguishable from background levels almost immediately. All other new impervious areas including new buildings, open basins, and pavement will be captured onsite and conveyed through the onsite stormwater detention system.

The removal of black cottonwood trees for construction of Secondary Clarifier No. 3 has the potential to degrade riparian habitat conditions for the Puyallup River. However, the affected areas are mostly 200 feet or more from the river, and riparian forest habitat between Secondary Clarifier No. 3 and the river will remain undisturbed. The remaining forest habitat will continue to support riparian processes such as water temperature maintenance; water flow; erosion and accretion; infiltration; groundwater recharge and discharge; sediment delivery, transport, and storage; organic matter input; nutrient and pathogen removal; and stream channel formation and maintenance.

4.2 WILDLIFE AND PLANT SPECIES

Indirect impacts may occur on non-listed wildlife species including mammals and birds. Potential impacts include disturbance during construction due to elevated levels of noise and human activity at the project site, as well as loss of vegetative habitat due to clearing for construction of Secondary Clarifier No. 3. Construction-related noise disturbance will be temporary and short-lived, and habitat loss will be offset at least in part by post-project plantings of native vegetation per the City of Sumner landscape code. The amount of potentially disturbed habitat is small compared to the amount of suitable habitat that will remain undisturbed in and around the project area, so any reductions in the amount of vegetated habitat in the project area is not expected to result in adverse effects on wildlife species.

5. MITIGATION

The project will have minimal impacts on habitat within the project boundaries. Existing vegetation is not suitable for most species as it is gravel and asphalt with some landscaping in the form of mowed grass and ornamental trees. The one exception is development of the Secondary Clarifier No. 3 along the southern edge of the WWTP. Clearing will remove black cottonwood trees and lawn.

5.1 AVOIDANCE OF IMPACTS

The project avoids impacts to critical habitat and listed species by concentrating most development within the existing plant footprint. There is no planned disturbance of wetlands (none mapped), the shoreline and vegetation, or inwater habitat. Additionally, the facility maintains an onsite stormwater management system and will process stormwater through this system.

However, impacts to vegetation in the vicinity of the new Secondary Clarifier No. 3, which is less than 200 feet from the Puyallup River, cannot be avoided. In addition, stormwater produced from new impervious surface will not be managed through the onsite stormwater management system and instead will be directed towards the Puyallup River for infiltration.

5.2 MINIMIZATION MEASURES

Unavoidable impacts will occur only at the site of the Secondary Clarifier No. 3. To minimize impacts, the City will minimize the amount of clearing to that necessary for construction and the landscaping will include native vegetation designed to screen the WWTP from the Puyallup River and users of the Puyallup River Trail, as well as provide habitat to local wildlife species.

5.3 COMPENSATORY MITIGATION

The project avoids direct impacts on the Puyallup and White Rivers, does not impact listed species or their habitat, and does not impact wetlands or other critical habitat. In addition, as noted above, riparian habitat that remains undisturbed between Secondary Clarifier No. 3 and the Puyallup River will continue to support riparian processes. Therefore, no compensatory mitigation is proposed.

6. MANAGEMENT RECOMMENDATIONS AND PRACTICES

6.1 MANAGEMENT RECOMMENDATIONS AND APPLICABILITY

This habitat management plan is required under the City of Sumner Municipal Code to ensure that habitat is protected within the 200-foot buffer of the Puyallup and White Rivers, and as required under the Shoreline Management Act and Critical Area Ordinance. Most of the project development occurs within the existing WWTP facility, which is fenced and includes flood walls. There is not suitable habitat within the WWTP with the majority of it being impervious surface comprised of buildings and asphalt and the remainder being gravel and landscape consisting of grass and ornamental trees.

The exception is the development of Secondary Clarifier No. 3, which is partially located within 200 feet of the Puyallup River. Due to the location of the facility, no other location for this structure is possible and the increase in wastewater treatment capacity is expected to minimize water quality impacts in the future as demand continues to grow for wastewater treatment. This development area currently supports black cottonwood trees and grass, neither of which are habitat features with which ESA-listed fish, wildlife, or plant species have a primary association in the project area. All listed species and their critical habitat are located within the riverine environment. Minimizing ground disturbance and clearing, following the grading plan and erosion control plan, along with planting of native species will sufficiently protect nearby habitat.

6.2 EFFECTIVENESS OF MITIGATION AND RESTORATION

The mitigation measures outlined above are expected to protect critical habitat and species.

6.3 ONGOING MANAGEMENT PRACTICES

Minimal ongoing management practices are proposed for this project due to the low impact. The City will ensure the survival of the native plants around Secondary Clarifier No. 3 per their landscape management plan. Compliance with the facility NPDES permit will meet stormwater management requirements.

7. LIMITATIONS

This report is prepared by Parametrix, Inc. for the exclusive use of the City of Sumner, Gray & Osborne, Inc., and their authorized agents for the Sumner Wastewater Treatment Plant Phase 2 facility expansion project located in Sumner, Washington. The contents of this report constitute the best available data at the time. No additional use of this report is permitted without the written consent of Parametrix, Inc.

8. LITERATURE CITED

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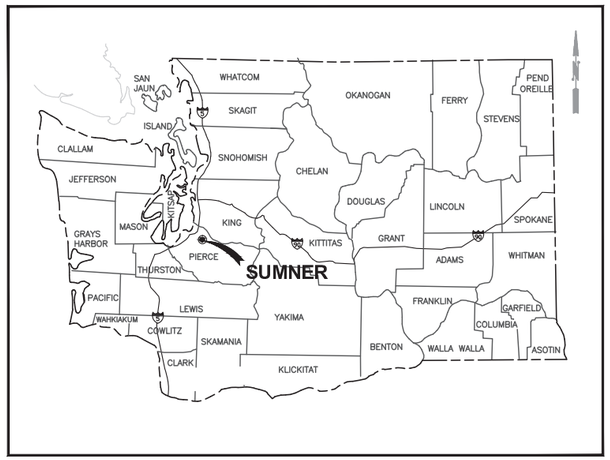
Appendix A

Project Site Maps



VICINITY MAP
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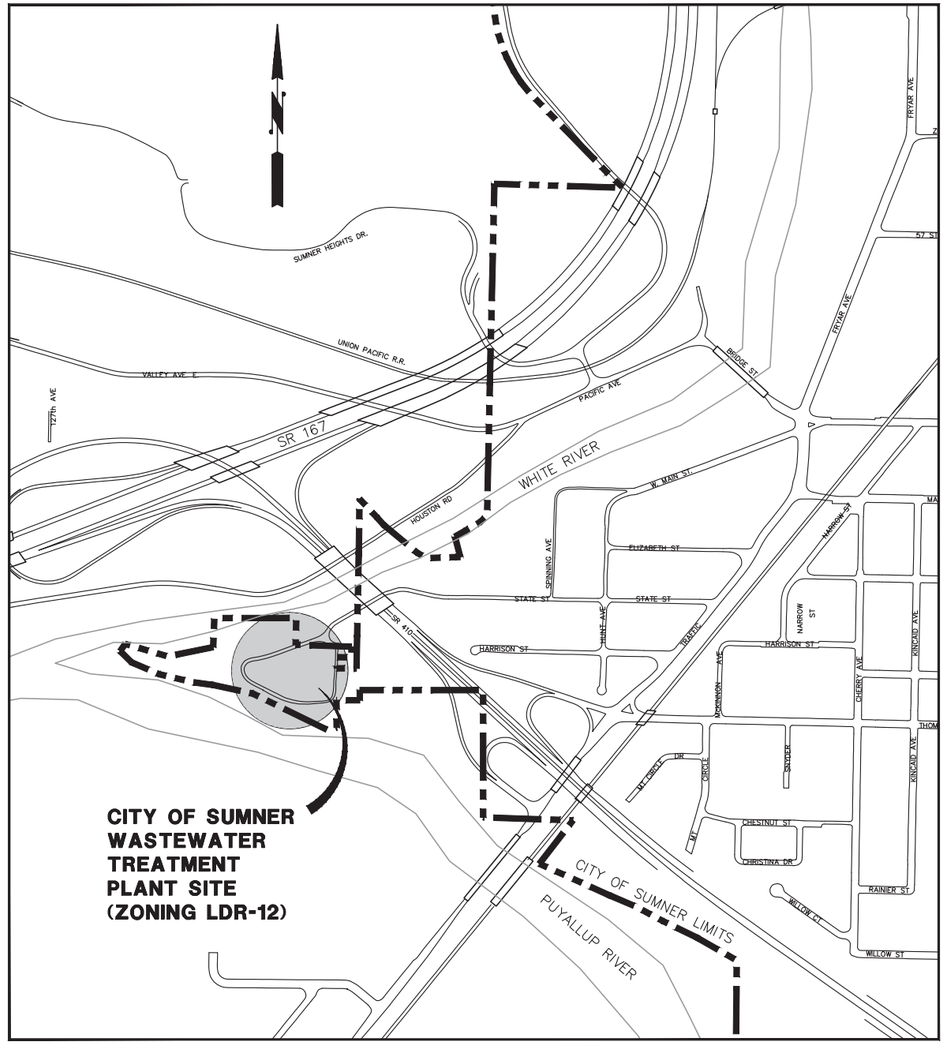


LOCATION MAP
SCALE 1"=400'

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

APPROVED
BY: _____ _____
CITY OF SUMNER DATE

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH, SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: JUL 2013	SCALE: NOTED	DRAWN: CRR	CHECKED:	APPROVED:

PRELIMINARY
NOT FOR
CONSTRUCTION

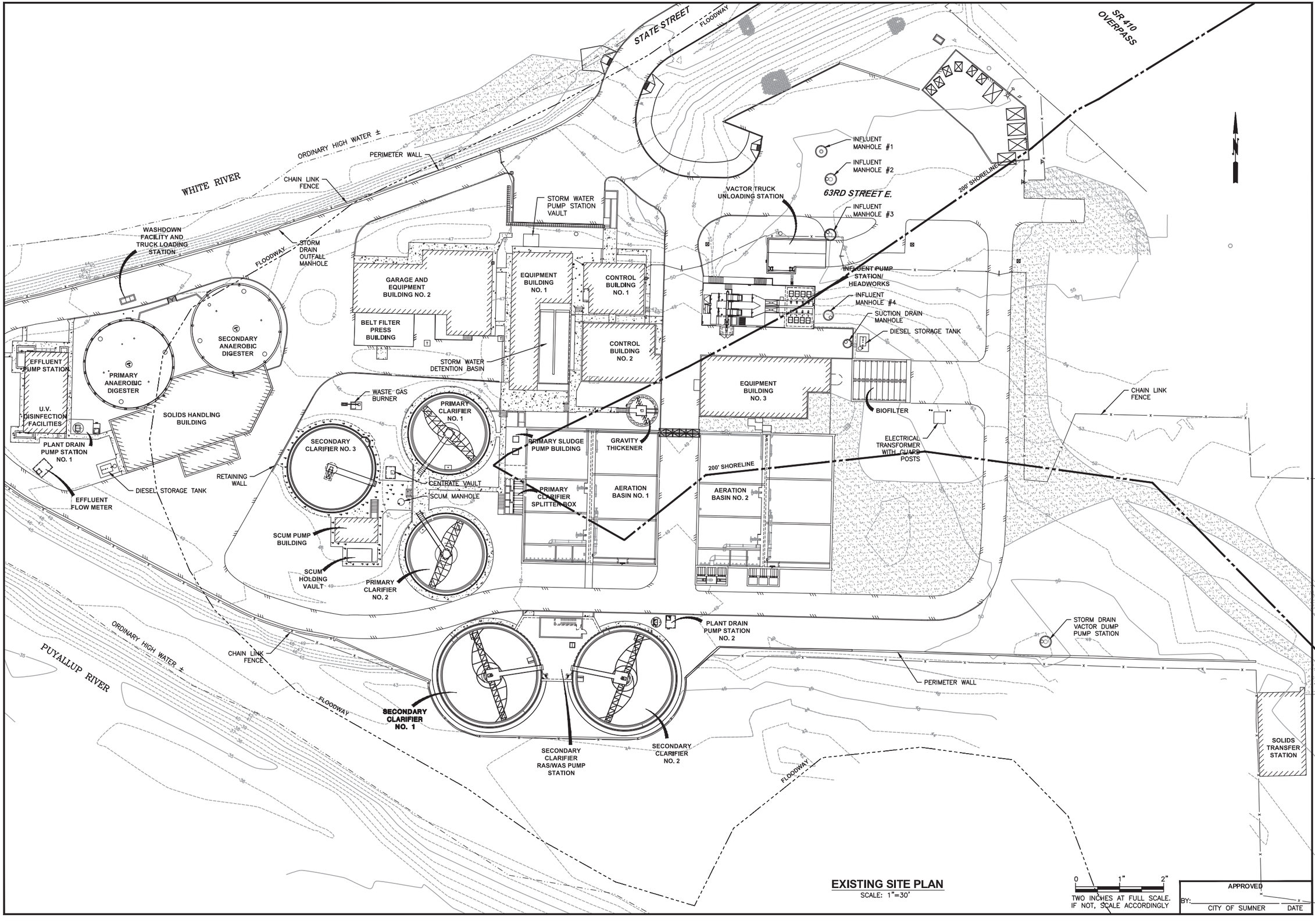
No.	REVISION	DATE	APPD

CITY OF SUMNER
PIERCE COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT
EXPANSION ALTERNATIVE A & B

VICINITY MAP AND LOCATION MAP

SHEET: 1
OF: 6

JOB NO.: 12538
DWG:G-VIC-VOG-LOC PERMIT



EXISTING SITE PLAN

SCALE: 1"=30'

0 1" 2"

TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

APPROVED

BY: _____ CITY OF SUMNER DATE

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH, SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: JUL 2013	SCALE: 1"=30'	DRAWN: CRR	CHECKED:	APPROVED:

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

CITY OF SUMNER
PIERCE COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT
EXPANSION ALTERNATIVE A & B

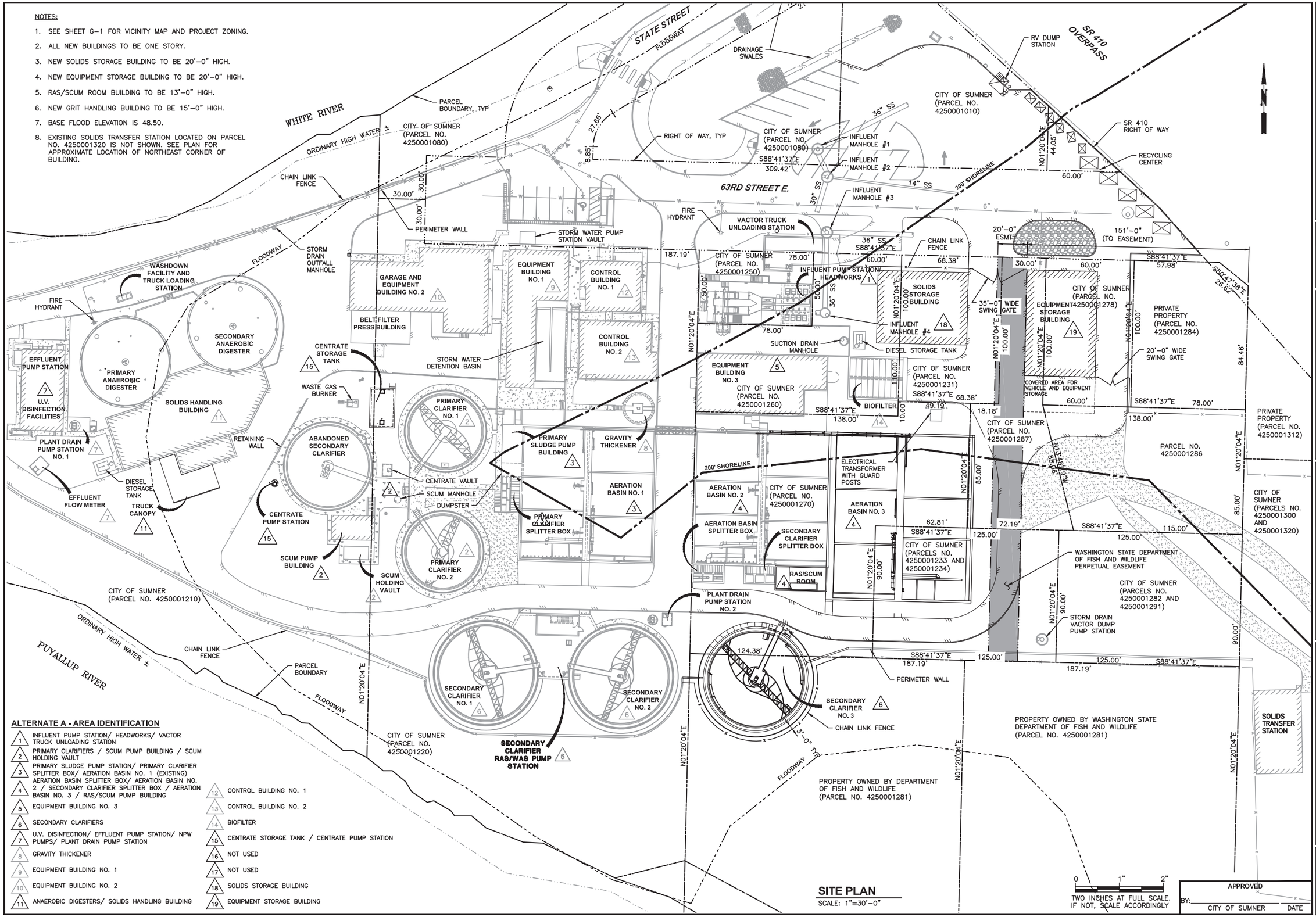
EXISTING SITE PLAN AND CONTOURS

SHEET: 2
OF: 6

JOB NO.: 12538
DWG: G_SITE_EX_PERMIT

NOTES:

1. SEE SHEET G–1 FOR VICINITY MAP AND PROJECT ZONING.
2. ALL NEW BUILDINGS TO BE ONE STORY.
3. NEW SOLIDS STORAGE BUILDING TO BE 20'–0" HIGH.
4. NEW EQUIPMENT STORAGE BUILDING TO BE 20'–0" HIGH.
5. RAS/SCUM ROOM BUILDING TO BE 13'–0" HIGH.
6. NEW GRIT HANDLING BUILDING TO BE 15'–0" HIGH.
7. BASE FLOOD ELEVATION IS 48.50.
8. EXISTING SOLIDS TRANSFER STATION LOCATED ON PARCEL NO. 4250001320 IS NOT SHOWN. SEE PLAN FOR APPROXIMATE LOCATION OF NORTHEAST CORNER OF BUILDING.



ALTERNATE A - AREA IDENTIFICATION

1. INFLUENT PUMP STATION/ HEADWORKS/ VACTOR TRUCK UNLOADING STATION
2. PRIMARY CLARIFIERS / SCUM PUMP BUILDING / SCUM HOLDING VAULT
3. PRIMARY SLUDGE PUMP STATION/ PRIMARY CLARIFIER SPLITTER BOX/ AERATION BASIN NO. 1 (EXISTING)
4. AERATION BASIN SPLITTER BOX/ AERATION BASIN NO. 2 / SECONDARY CLARIFIER SPLITTER BOX / AERATION BASIN NO. 3 / RAS/SCUM PUMP BUILDING
5. EQUIPMENT BUILDING NO. 3
6. SECONDARY CLARIFIERS
7. U.V. DISINFECTION/ EFFLUENT PUMP STATION/ NPW PUMPS/ PLANT DRAIN PUMP STATION
8. GRAVITY THICKENER
9. EQUIPMENT BUILDING NO. 1
10. EQUIPMENT BUILDING NO. 2
11. ANAEROBIC DIGESTERS/ SOLIDS HANDLING BUILDING
12. CONTROL BUILDING NO. 1
13. CONTROL BUILDING NO. 2
14. BIOFILTER
15. CENTRATE STORAGE TANK / CENTRATE PUMP STATION
16. NOT USED
17. NOT USED
18. SOLIDS STORAGE BUILDING
19. EQUIPMENT STORAGE BUILDING

SITE PLAN

SCALE: 1"=30'–0"

APPROVED

BY: _____ CITY OF SUMNER DATE

Gray & Osborne, Inc.
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701 DEXTER AVENUE NORTH, SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: JUL 2013	SCALE: 1"=30'	DRAWN: CRR	CHECKED:	APPROVED:

PRELIMINARY NOT FOR CONSTRUCTION

No.	REVISION	DATE	APPD

CITY OF SUMNER
PIERCE COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT
EXPANSION ALTERNATIVE A

PROPOSED SITE PLAN

SHEET: 3
OF: 6

JOB NO.: 12538
DWG: SITE_PLN_PERMIT_A

DECIDUOUS TREES

SYMBOL	BOTANICAL NAME	COMMON NAME	VARIETY
	ACER CIRCINATUM	VINE MAPLE	
	CORNUS NUTTALLII	PACIFIC DOGWOOD	
	MALUS	APPLE	SUMMERRED, RED JONATHAN, GOLDEN DELICIOUS
	PRUNUS	APRICOT	PUGET GOLD
	PRUNUS PERSICA	PEACH	RELIANCE, VETERAN
	PYRUS COMMUNIS	PEAR	CASCADE
	SYRINGA CHINENSIS	CHINESE LILAC	
	SYRINGA VULGARIS	COMMON LILAC	PRESIDENT LINCOLN SENSATION

EVERGREEN TREES

SYMBOL	BOTANICAL NAME	COMMON NAME	VARIETY
	CALOCEDRUS DECURRENS	INCENSE CEDAR	
	PICEA SITCHENSIS	SITKA SPRUCE	
	PINUS CONTORTA	SHORE PINE	
	THUJA PLICATA	WESTERN RED CEDAR	FASTIGIATA
	THUJA OCCIDENTALIS	AMERICAN ARBOVITAE	FASTIGIATA (COLUMNARIS)

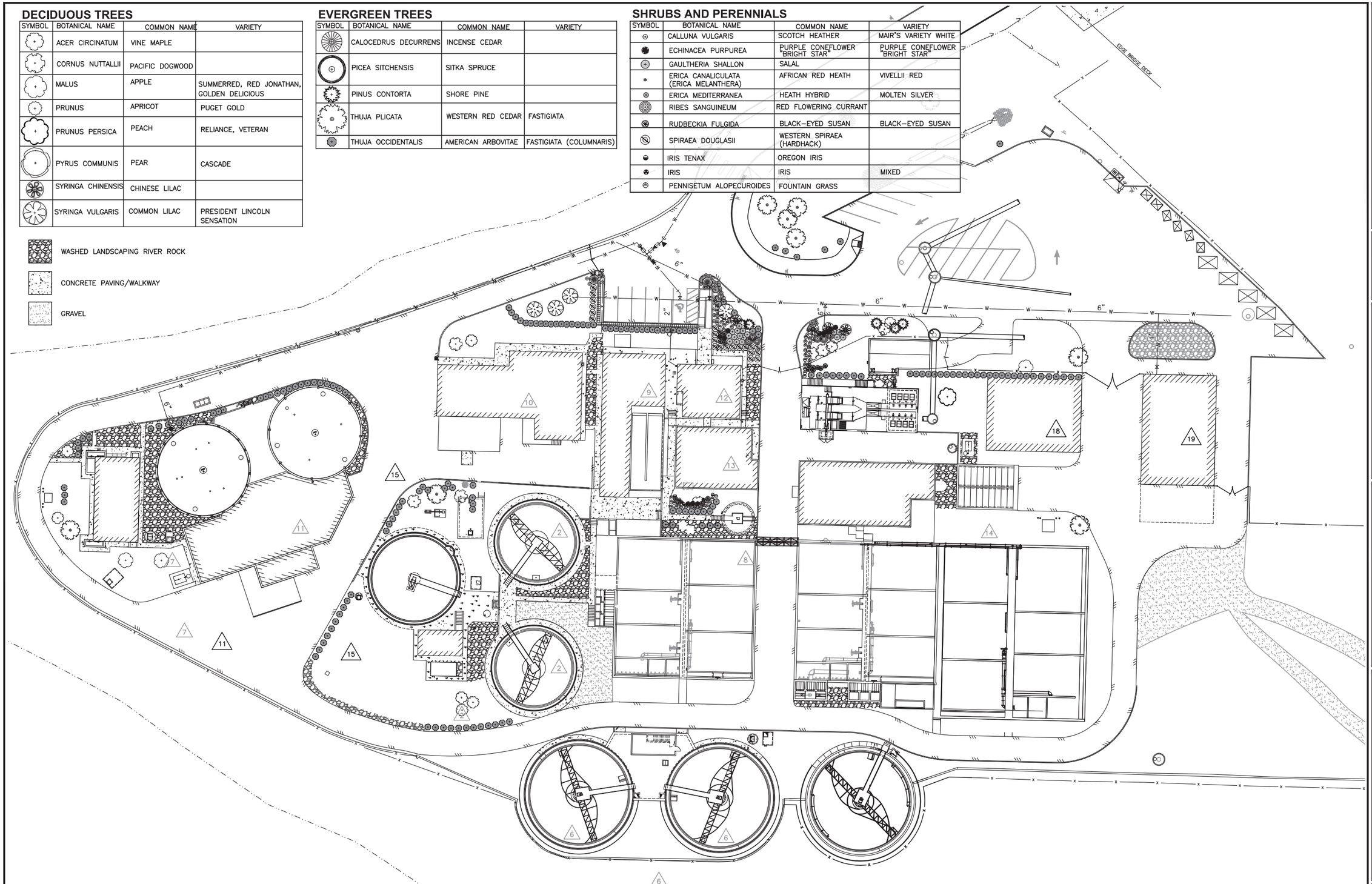
SHRUBS AND PERENNIALS

SYMBOL	BOTANICAL NAME	COMMON NAME	VARIETY
	CALLUNA VULGARIS	SCOTCH HEATHER	MAIR'S VARIETY WHITE
	ECHINACEA PURPUREA	PURPLE CONEFLOWER "BRIGHT STAR"	PURPLE CONEFLOWER "BRIGHT STAR"
	GAULTHERIA SHALLON	SALAL	
	ERICA CANALICULATA (ERICA MELANTHERA)	AFRICAN RED HEATH	VIVELLII RED
	ERICA MEDITERRANEA	HEATH HYBRID	MOLTEN SILVER
	RIBES SANGUINEUM	RED FLOWERING CURRANT	
	RUDBECKIA FULGIDA	BLACK-EYED SUSAN	BLACK-EYED SUSAN
	SPIRAEA DOUGLASII	WESTERN SPIRAEA (HARDHACK)	
	IRIS TENAX	OREGON IRIS	
	IRIS	IRIS	MIXED
	PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	

WASHED LANDSCAPING RIVER ROCK

CONCRETE PAVING/WALKWAY

GRAVEL



LANDSCAPING PLAN
SCALE: 1"=30'-0"

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

APPROVED
BY:_____
CITY OF SUMNER DATE

Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH, SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0880

DATE: JUL 2013 | SCALE: 1"=30' | DRAWN: CRR | CHECKED: | APPROVED:

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CITY OF SUMNER
PIERCE COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT
EXPANSION ALTERNATIVE A

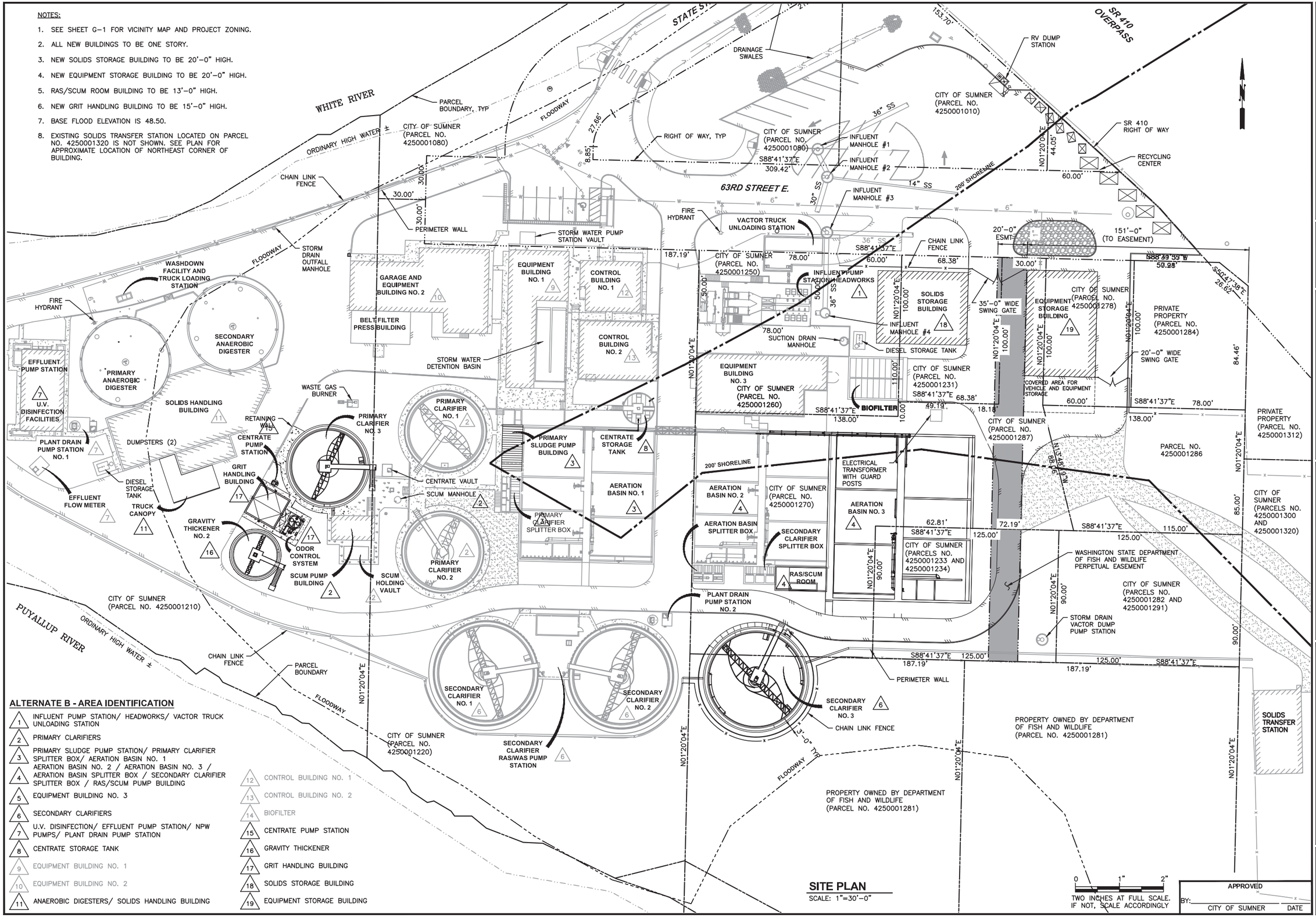
SITE LANDSCAPING PLAN

SHEET: 4
OF: 6

JOB NO.: 12538
DWG: SITE_PLN_PERMIT_A

NOTES:

1. SEE SHEET G–1 FOR VICINITY MAP AND PROJECT ZONING.
2. ALL NEW BUILDINGS TO BE ONE STORY.
3. NEW SOLIDS STORAGE BUILDING TO BE 20'–0" HIGH.
4. NEW EQUIPMENT STORAGE BUILDING TO BE 20'–0" HIGH.
5. RAS/SCUM ROOM BUILDING TO BE 13'–0" HIGH.
6. NEW GRIT HANDLING BUILDING TO BE 15'–0" HIGH.
7. BASE FLOOD ELEVATION IS 48.50.
8. EXISTING SOLIDS TRANSFER STATION LOCATED ON PARCEL NO. 4250001320 IS NOT SHOWN. SEE PLAN FOR APPROXIMATE LOCATION OF NORTHEAST CORNER OF BUILDING.



ALTERNATE B - AREA IDENTIFICATION

1. INFLUENT PUMP STATION/ HEADWORKS/ VACTOR TRUCK UNLOADING STATION
2. PRIMARY CLARIFIERS
3. PRIMARY SLUDGE PUMP STATION/ PRIMARY CLARIFIER SPLITTER BOX/ AERATION BASIN NO. 1 AERATION BASIN NO. 2 / AERATION BASIN NO. 3 / AERATION BASIN SPLITTER BOX / SECONDARY CLARIFIER SPLITTER BOX / RAS/SCUM PUMP BUILDING
4. EQUIPMENT BUILDING NO. 3
5. SECONDARY CLARIFIERS
6. U.V. DISINFECTION/ EFFLUENT PUMP STATION/ NPW PUMPS/ PLANT DRAIN PUMP STATION
7. CENTRATE STORAGE TANK
8. EQUIPMENT BUILDING NO. 1
9. EQUIPMENT BUILDING NO. 2
10. ANAEROBIC DIGESTERS/ SOLIDS HANDLING BUILDING
11. CONTROL BUILDING NO. 1
12. CONTROL BUILDING NO. 2
13. BIOFILTER
14. CENTRATE PUMP STATION
15. GRAVITY THICKENER
16. GRIT HANDLING BUILDING
17. SOLIDS STORAGE BUILDING
18. EQUIPMENT STORAGE BUILDING

SITE PLAN

SCALE: 1"=30'–0"

0 1" 2"

TWO INCHES AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

APPROVED

BY: _____ CITY OF SUMNER DATE

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CITY OF SUMNER
PIERCE COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT
EXPANSION ALTERNATIVE B

PROPOSED SITE PLAN

SHEET: 5
OF: 6

JOB NO.: 12538
DWG: SITE_PLN_PERMIT_B

DECIDUOUS TREES

SYMBOL	BOTANICAL NAME	COMMON NAME	VARIETY
	ACER CIRCINATUM	VINE MAPLE	
	CORNUS NUTTALLII	PACIFIC DOGWOOD	
	MALUS	APPLE	SUMMERRED, RED JONATHAN, GOLDEN DELICIOUS
	PRUNUS	APRICOT	PUGET GOLD
	PRUNUS PERSICA	PEACH	RELIANCE, VETERAN
	PYRUS COMMUNIS	PEAR	CASCADE
	SYRINGA CHINENSIS	CHINESE LILAC	
	SYRINGA VULGARIS	COMMON LILAC	PRESIDENT LINCOLN SENSATION

EVERGREEN TREES

SYMBOL	BOTANICAL NAME	COMMON NAME	VARIETY
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SHRUBS AND PERENNIALS

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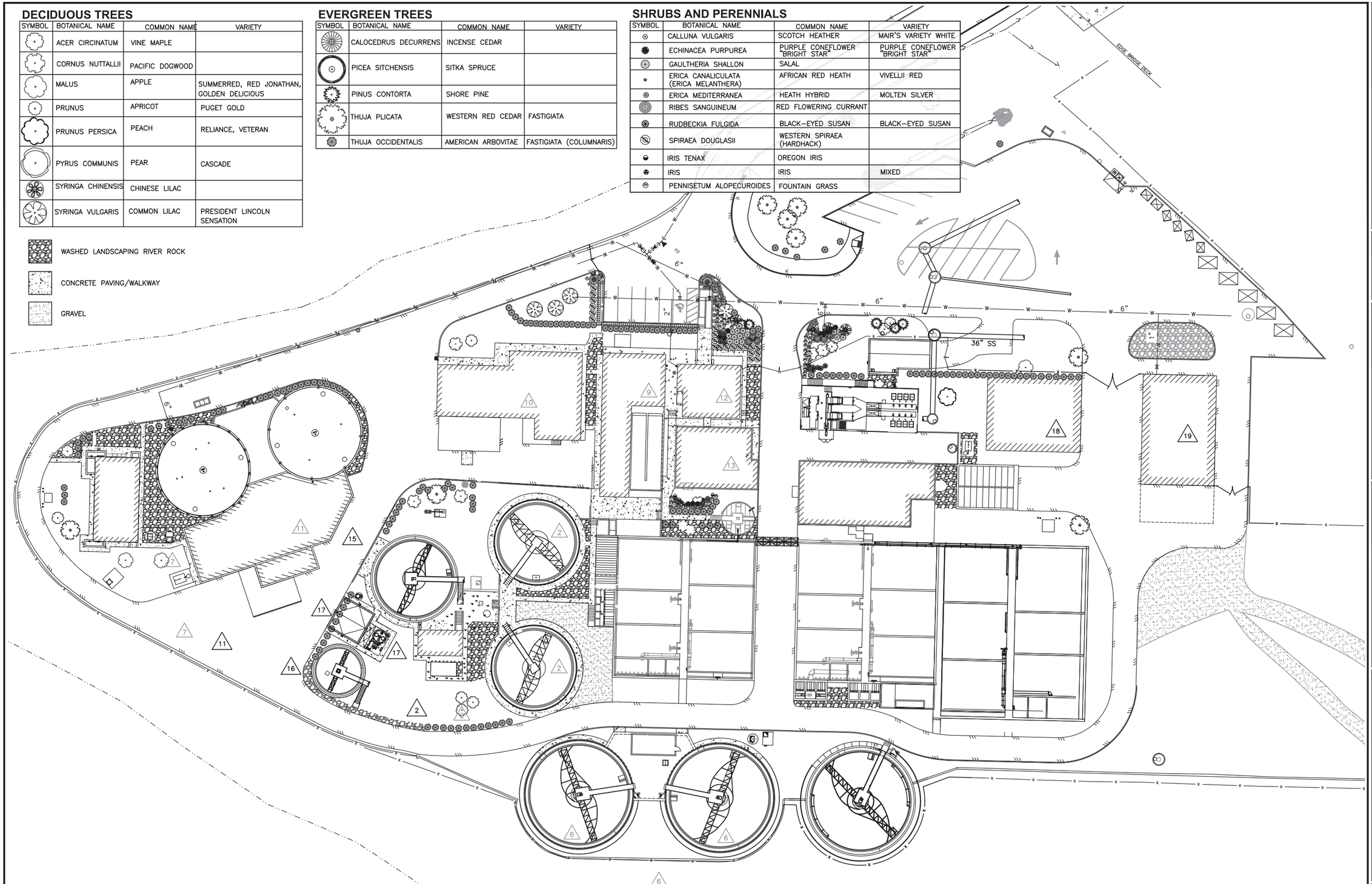
	GAULTHERIA SHALLON	SALAL	
	ERICA CANALICULATA (ERICA MELANTHERA)	AFRICAN RED HEATH	VIVELLII RED
	ERICA MEDITERRANEA	HEATH HYBRID	MOLTEN SILVER
	RIBES SANGUINEUM	RED FLOWERING CURRANT	
	RUDBECKIA FULGIDA	BLACK-EYED SUSAN	BLACK-EYED SUSAN
	SPIRAEA DOUGLASII	WESTERN SPIRAEA (HARDHACK)	
	IRIS TENAX	OREGON IRIS	
	IRIS	IRIS	MIXED
	PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	

WASHED LANDSCAPING RIVER ROCK

CONCRETE PAVING/WALKWAY

GRAVEL



LANDSCAPING PLAN

SCALE: 1"=30'-0"

0 1" 2"

TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

APPROVED

BY:_____ CITY OF SUMNER DATE

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CITY OF SUMNER
PIERCE COUNTY WASHINGTON
WASTEWATER TREATMENT PLANT
EXPANSION ALTERNATIVE B

SITE LANDSCAPE PLAN

SHEET: 6
OF: 6

JOB NO.: 12538

DWG: SITE_PLN_PERMIT_B

Appendix B

Agency Species Lists

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PRIORITY HABITATS AND SPECIES REPORT

SOURCE DATASET: PHSPlusPublic
REPORT DATE: 08/01/2013 2.14 PM

Query ID: P130801141306

Common Name	Site Name	Priority Area	Accuracy	Federal Status	Sensitive Data	Source Entity
Scientific Name	Source Dataset	Occurrence Type		State Status	Resolution	Geometry Type
	Source Record	More Information (URL)		PHS Listing Status		
Notes	Source Date	Mgmt Recommendations				

Study Area Diagram

BOUNDING BOX: -13611827,5973309,-13606787,5976069
(web mercator meters)

Query ID: P130801141306

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
PRIORITY HABITATS AND SPECIES REPORT

SOURCE DATASET: PHSPlusPublic Query ID: P130801142752
REPORT DATE: 08/01/2013 2.29 PM

Common Name / Scientific Name / Notes	Site Name / Source Dataset / Source Record / Source Date	Priority Area / Occurrence Type / More Information (URL) / Mgmt Recommendations	Accuracy	Federal Status / State Status / PHS Listing Status	Sensitive Data / Resolution	Source Entity / Geometry Type
Biodiversity Areas And	PIERCE COUNTY CANDIDATE PHSREGION 902061	Terrestrial Habitat N/A http://wdfw.wa.gov/publications/pub.php?id=00023	1/4 mile (Quarter	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Biodiversity Areas And	CARBON RIVER OPEN PHSREGION 903848	Terrestrial Habitat N/A http://wdfw.wa.gov/publications/pub.php?id=00023	1/4 mile (Quarter	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Bull Trout Salvelinus malma	White River FISHDIST 16918	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Bull Trout Salvelinus malma	Puyallup River FISHDIST 18903	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Bull Trout Salvelinus malma	White River SASI 8156	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Bull Trout Salvelinus malma	Puyallup River SASI 8144	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Bull Trout Salvelinus malma	Puyallup River SASI 8156	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Bull Trout Salvelinus malma	Puyallup River SASI 8168	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Chinook Oncorhynchus tshawytscha	White River SASI 1184	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Chinook Oncorhynchus tshawytscha	Puyallup River SASI 1176	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Chinook Oncorhynchus tshawytscha	Puyallup River SASI 1184	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Chinook Salmon Oncorhynchus tshawytscha	White River FISHDIST 16904	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Chinook Salmon Oncorhynchus tshawytscha	White River FISHDIST 16910	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Chinook Salmon Oncorhynchus tshawytscha	Puyallup River FISHDIST 18893	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Chinook Salmon Oncorhynchus tshawytscha	Puyallup River FISHDIST 18898	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Chum Oncorhynchus keta	White River SASI 2187	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Chum Oncorhynchus keta	Puyallup River SASI 2176	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Chum Oncorhynchus keta	Puyallup River SASI 2187	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Chum Salmon Oncorhynchus keta	White River FISHDIST 16906	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Chum Salmon Oncorhynchus keta	Puyallup River FISHDIST 18895	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Coast Resident Cutthroat Oncorhynchus clarki	White River FISHDIST 16903	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WA Department of Fish & Wildli Lines
Coast Resident Cutthroat Oncorhynchus clarki	Puyallup River FISHDIST 18891	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WA Department of Fish & Wildli Lines
Coho Oncorhynchus kisutch	White River SASI 3170	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Candidate N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines

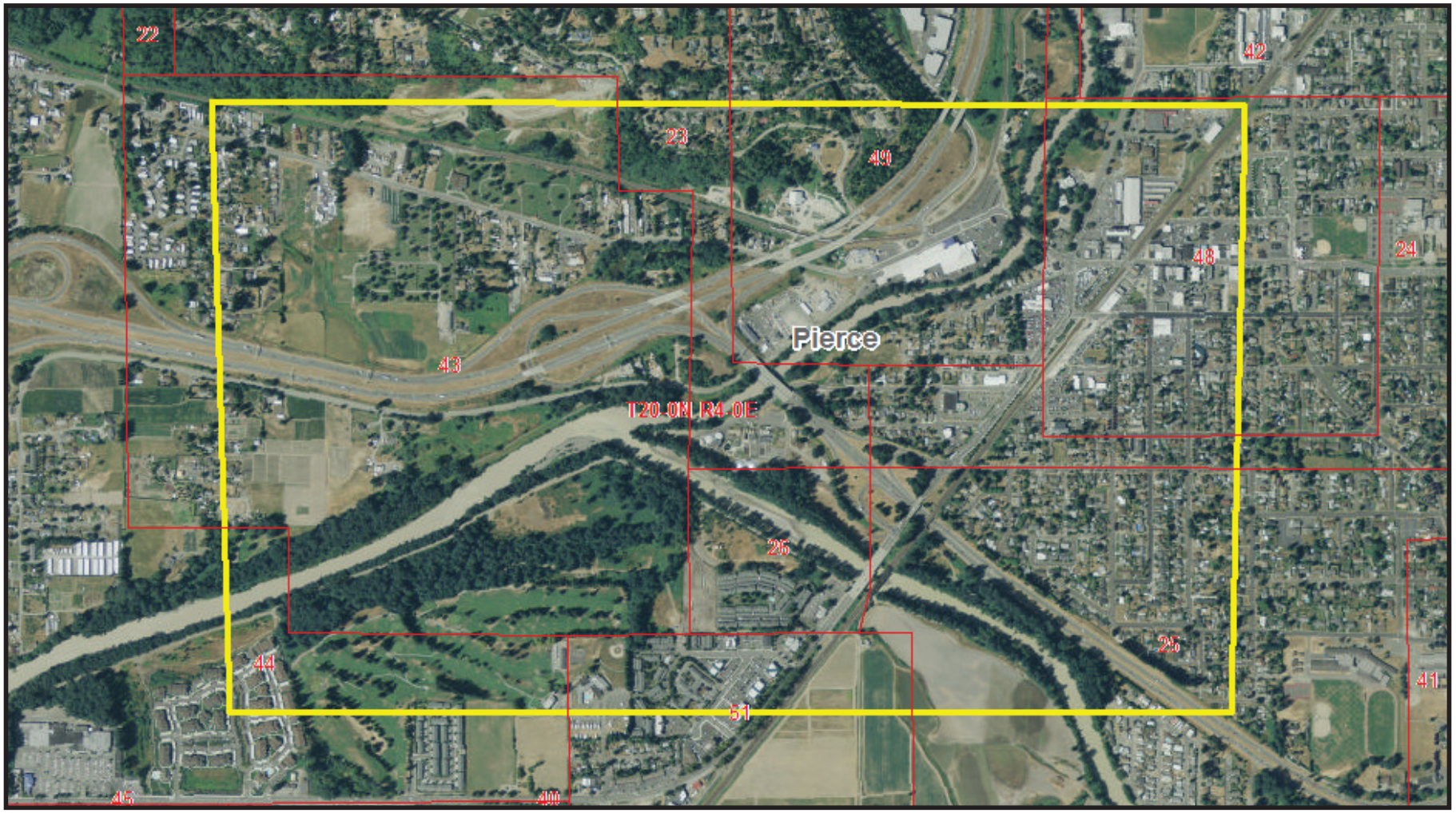
Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Coho Oncorhynchus kisutch	Puyallup River SASI 3160	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Candidate N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Coho Oncorhynchus kisutch	Puyallup River SASI 3170	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Candidate N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Coho Salmon Oncorhynchus kisutch	White River FISHDIST 16915	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Coho Salmon Oncorhynchus kisutch	Puyallup River FISHDIST 18901	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Cutthroat Oncorhynchus clarki	White River SASI 7400	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Cutthroat Oncorhynchus clarki	Puyallup River SASI 7400	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
Pink Oncorhynchus gorbuscha	White River SASI 4520	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Pink Oncorhynchus gorbuscha	Puyallup River SASI 4520	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Not Warranted N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Pink Salmon Oncorhynchus gorbuscha	White River FISHDIST 16923	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Pink Salmon Oncorhynchus gorbuscha	Puyallup River FISHDIST 18904	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Pink Salmon Oncorhynchus gorbuscha	Puyallup River FISHDIST 18905	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Pink Salmon Oncorhynchus gorbuscha	Puyallup River FISHDIST 18906	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
RIVERINE LOWER	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
RIVERINE LOWER	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
RIVERINE LOWER	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
RIVERINE LOWER	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
RIVERINE TIDAL	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
RIVERINE TIDAL	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Sockeye Oncorhynchus nerka	White River FISHDIST 16925	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Sockeye Oncorhynchus nerka	Puyallup River FISHDIST 18909	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Steelhead Oncorhynchus mykiss	White River SASI 6189	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Steelhead Oncorhynchus mykiss	Puyallup River SASI 6182	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Steelhead Oncorhynchus mykiss	Puyallup River SASI 6189	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Steelhead Oncorhynchus mykiss	Puyallup River SASI 6196	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Steelhead Trout Oncorhynchus mykiss	White River FISHDIST 16927	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Steelhead Trout Oncorhynchus mykiss	Puyallup River FISHDIST 18910	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines

Common Name Scientific Name Notes	Site Name Source Dataset Source Record Source Date	Priority Area Occurrence Type More Information (URL) Mgmt Recommendations	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Wetlands	LOWER PUYALLUP RIVER PHSREGION 902559	Aquatic Habitat N/A http://www.ecy.wa.	1/4 mile (Quarter	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons

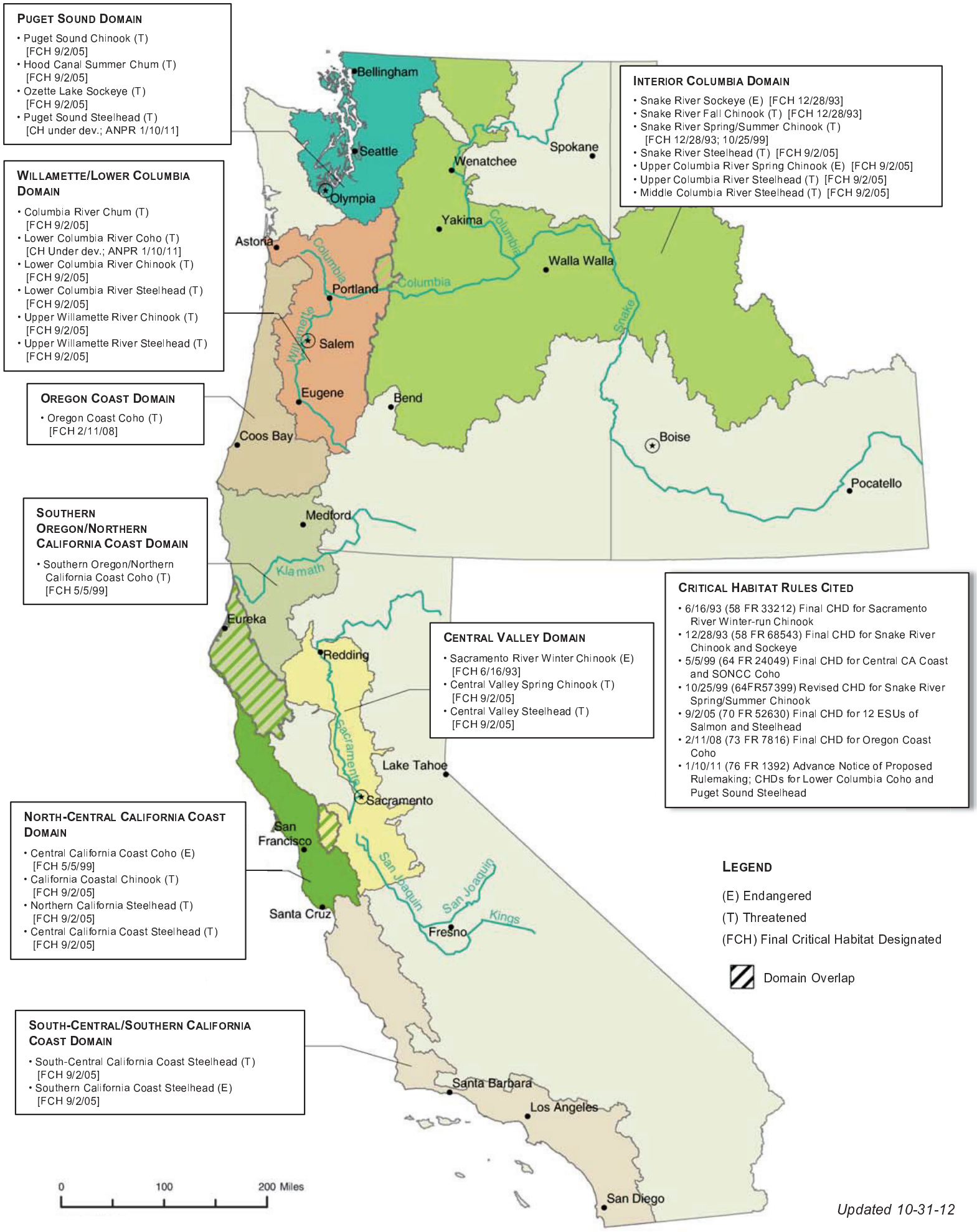


Study Area Diagram

BOUNDING BOX: -13611891,5973442,-13606851,5976202
(web mercator meters)

Query ID: P130801142752

Status of ESA Listings & Critical Habitat Designations for West Coast Salmon & Steelhead



Updated 10-31-12

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Birds	Northern spotted owl (Strix	Entire	Threatened	Oregon Fish And Wildlife Office	Revised Recovery Plan for the	Final Revision 1
Birds	Marbled murrelet	CA, OR, WA	Threatened	Washington Fish And Wildlife	Recovery Plan for the	Final
Birds	Streaked Horned lark		Proposed Threatened	Washington Fish And Wildlife		
Fishes	Bull Trout (Salvelinus	U.S.A., conterminous, lower 48	Threatened	Idaho Fish And Wildlife Office	Draft Recovery Plan for the	Draft
Fishes	Bull Trout (Salvelinus	U.S.A., conterminous, lower 48	Threatened	Idaho Fish And Wildlife Office	Draft Recovery Plan for the	Draft
Fishes	Bull Trout (Salvelinus	U.S.A., conterminous, lower 48	Threatened	Idaho Fish And Wildlife Office	Draft Recovery Plan for Three of	Draft
Flowering Plants	Water howellia (Howellia		Threatened	Montana Ecological Services	Water Howellia (Howellia	Draft
Insects	Taylor's (=whulge) Checkerspot		Proposed Endangered	Washington Fish And Wildlife	Final Recovery Plan for the	Final
Mammals	Roy Prairie pocket gopher		Proposed Threatened	Washington Fish And Wildlife		
Mammals	North American wolverine (Gulo		Proposed Threatened	Montana Ecological Services		