TROUTDALE REYNOLDS INDUSTRIAL PARK MITIGATION AND NATURAL AREAS

LONG-TERM MANAGEMENT PLAN

VOLUME I

Company Lake, East Lake and Tree Mitigation Projects in Troutdale, OR

Port of Portland

December 2022

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Abbreviations

BMP	Best management practice
CWA	Clean Water Act
DEQ	Oregon Department of Environmental Quality
DSL	Oregon Department of State Lands
EPA	Environmental Protection Agency
ESA	Endangered Species Act
JPA	Joint Permit Application
LTMP	Long-term Management Plan
Metro	Metropolitan Service District
NGVD	National Geodetic Vertical Datum
NMFS	National Marine Fisheries Service
OAR	Oregon Administrative Rule
OBL	Obligate wetland species (occur almost always under natural conditions in wetlands)
ODA	Oregon Department of Agriculture
ODFW	Oregon Department of Fish and Wildlife
OPRD	Oregon State Parks and Recreation Department
ORS	Oregon Revised Statutes
PEM	palustrine emergent
PDX	Portland International Airport
PFO	palustrine forested
Port	Port of Portland
PSS	palustrine scrub-shrub
RMC	Reynolds Metals Corporation
SWCA	SWCA Environmental Consultants
TRIP	Troutdale Reynolds Industrial Park
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

Land Acknowledgement

We acknowledge that the Port of Portland is located on lands that have been occupied and stewarded since time immemorial by people from the Cascade, Clackamas and Multnomah Bands of the Chinook Tribe.

Many other indigenous peoples have their homes in, travel through, harvest and use the plentiful natural resources of the Columbia River, Willamette River, and the other lands and waters within the Port's district.

The Port of Portland respects the history of the federally recognized sovereign Tribal Nations of the Northwest, whose people were forcibly dispossessed and removed from their homes and lands by the United States government following treaties entered into between 1851 and 1855. And we are committed to recognizing the ongoing relationship that exists between indigenous peoples and these places.

Introduction

Mitigation Management Program

The Port of Portland (Port) initiated their Mitigation Management Program in 1997 to respond to ongoing and proposed mitigation requirements and mandates from various regulatory agencies to address impacts to wetlands and other natural resources. The Port currently manages over 900 acres of mitigation sites and natural areas.

Mitigation and other natural resource enhancement projects are designed to provide a number of wildlife, ecological, and community benefits. These benefits include increasing wildlife value by enhancing or creating nesting, foraging, and resting habitat; creating and enhancing riparian zone functions; improving connectivity between wildlife areas; improving or restoring wetland hydrological functions; improving water quality; providing flood attenuation through water storage; reducing and controlling the spread of invasive weeds; improving habitat for wildlife including avifauna, amphibians, sensitive turtles, and pollinators while providing valuable "green space" in highly urbanized areas. Mitigation planning, designing, monitoring, and reporting follow federal and state regulations, general authorizations, and guidelines.

Long-term management of mitigation sites is vital to ensure that these areas continue to provide ecological benefits to wildlife and the local community. The Port's Natural Resources Policy states that "The Port will manage natural resources in a manner that protects the integrity of the natural environment; promotes natural ecosystems that favor native biodiversity, reduces ecological fragmentation, and improves ecological connectivity, and protects and enhances natural resources of ecological significance." While the Port's Natural Resource staff are dedicated to long-term management of mitigation sites and natural areas, it is not the Port's primary mission. The Port will continue to seek cooperation and partnerships to foster the long-term management of Port mitigation sites and natural areas. The conservation group, land trust or local agency that may in the future assume responsibility for the ongoing management of these sites shall be referred to as the "steward" for the remainder of this document. This long-term management plan (LTMP) summarizes the Port's knowledge of the TRIP Phase I mitigation sites and will provide a new steward with valuable tools for long-term management to ensure the site's values and functions over time.

This Volume I TRIP LTMP addresses the Port-owned mitigation and natural areas located outside of the levee at TRIP including Company Lake, East Lake, tree mitigation projects and the remaining areas protected under the Conservation Easement with Oregon State Parks and Recreation Department (OPRD) (see Appendix A-1). Pending advance wetland mitigation credits are discussed under the Permitting section of this document. Long-term management for the TRIP Phase II/III mitigation project, West Sundial Wetlands, is addressed in a separate document, TRIP LTMP Volume II.

Site Description and History

Located north of I-84, near the confluence of the Sandy and Columbia Rivers in Troutdale, Oregon the Troutdale Reynolds Industrial Park (TRIP) was previously the site of the Reynolds Metals Corporation (RCM) Troutdale Aluminum Plant. The Port purchased the property in December 2007 with plans to develop the site in phases for industrial use. See Figure 1.

In 1994, the site was listed as a Superfund site by the US Environmental Protection Agency (EPA). Since that time, Reynolds Metals Corporation (RMC) has been engaged in clean-up of the site, including demolition of virtually all plant-related structures. EPA issued its Record of Decision in September 2006 indicating that the level of clean-up of the Troutdale site is suitable for industrial use, but not residential or commercial use.

The Port developed the TRIP site in two phases. Phase I development activities, encompassing approximately 142 acres, included the development of Lot 1 (15 acres), Lot 2 (78 acres), a new road (NW Swigert Way), existing road improvements, utility corridor and storm water facilities. Phase I development impacted a total of 0.28 acres of jurisdictional wetland and 0.53 acres of other waters (Salmon Creek and two tributary ditches). Constructed in 2009, mitigation for Phase I impacts occurred north of the levee and include created and enhanced wetland adjacent to Company and East Lakes totaling 7.96 acres and 4.73 credits (as per the final delineation and agency release letters, see Appendix A-2). Other mitigation associated with Phase I include the 300 Trees site planted north of the levee and Salmon Creek located east of Sundial Road. Phase I mitigation was conducted under the following permits: Oregon Department of State Lands (DSL) 40094-RF and U.S. Army Corps of Engineers (USACE) NWP-2007-889. Advanced mitigation credits from the Phase I mitigation were permitted to be used under USACE NWP-2011-432 for the PDX Logistics project. The Phase I as-built report was submitted in March 2011 and amended in May 2011. This mitigation project was released by both regulating agencies by March 2020 with pending advance credits discussed in more detail under the Permitting section. See Figure 1 below and Appendix B, Site Figures.

Also addressed in this document is the City of Troutdale required tree mitigation for 1,290 trees removed in conjunction with Phase II/III lot development, primarily east of Sundial Road. The 1:1 mitigation is located north of the levee adjacent to the Phase I 300 Trees site.

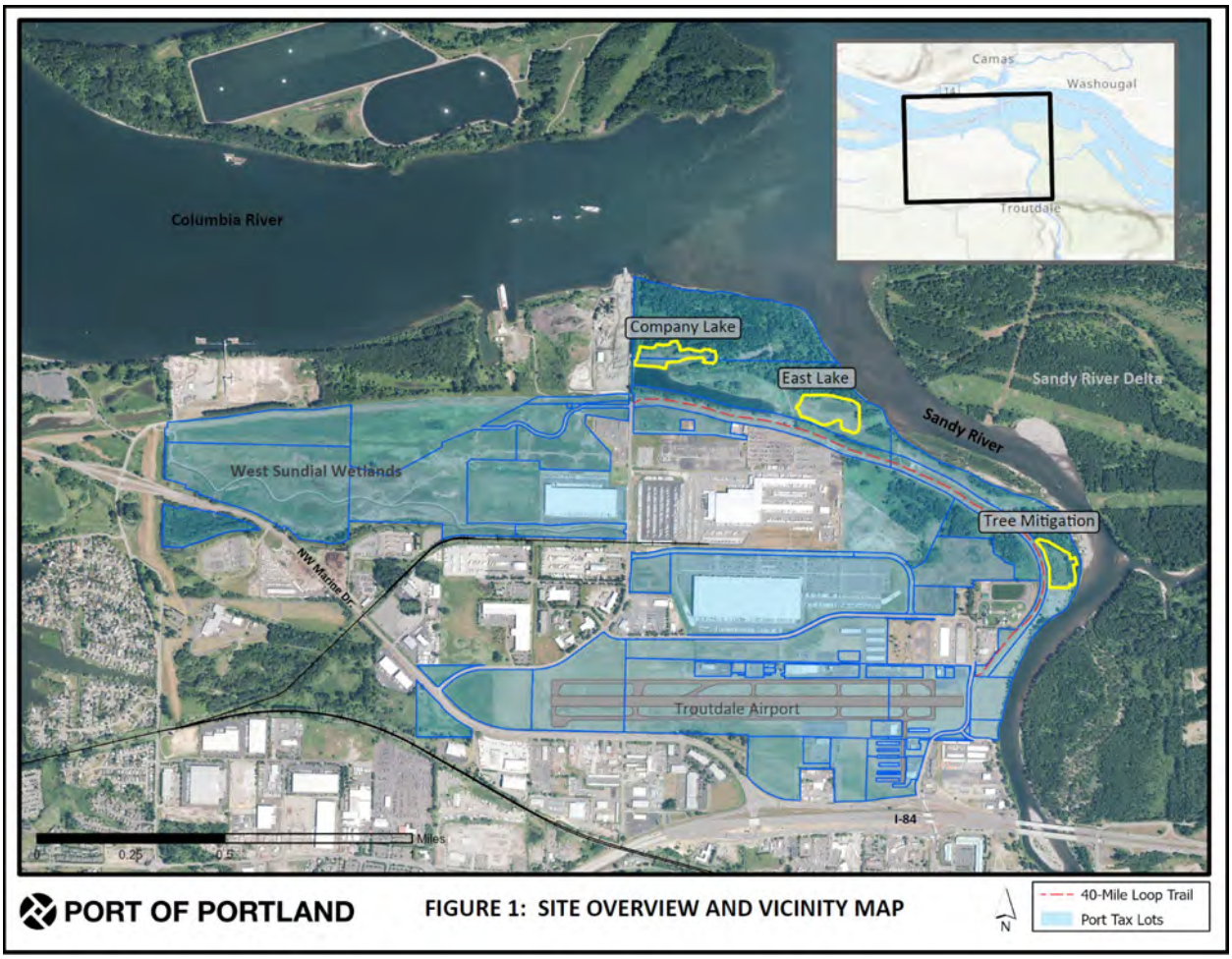

Figure 1: Site Overview and Vicinity Map

Ecological Setting

Habitat Description and Corridor Connectivity

Company Lake, East Lake and the tree mitigation sites are all located north of the levee within the 100-year floodplain adjacent to the Columbia and Sandy rivers. Company Lake is hydrologically connected to the Columbia River during high river levels via a ditch that houses a large pipe associated with groundwater treatment remediation located north of Company Lake along the west edge of the Port property (Appendix B-1). East Lake has a small drainage outlet to the Sandy River which can backflow during high river levels. The wetland mitigation projects are situated within a large expanse, roughly 80 acres, of riparian forest and scrub-shrub habitat that borders the Columbia and Sandy Rivers (Appendix B-2). The tree mitigation site can be described as primarily upland conditions with a small area of the 300 Trees site that floods occasionally during high river levels. The tree mitigation projects are located roughly three quarters of a mile southeast of East Lake north of the levee (Appendix B-3).

Tree mitigation sites include the Phase I and Phase II/III projects and comprise approximately 3 acres of invasive species removal, native tree planting and groundcover seeding with managed buffers. Originally

planted in 2010, the 300 Trees site was required by the USACE during the Phase I permitting and was released in 2020. The 1290 Trees project was associated with Phase II/III impacts and required by the City of Troutdale. The native tree planting and pollinator species seeding for the 1290 Trees project was initially completed in 2016; reseeding and interplanting with flowering shrubs occurred in the fall of 2018. The site is now well-established with native trees, shrubs, grasses, and forbs. See Appendix C, Site Photos.

Surrounding Land Use

The Phase I mitigation areas are all located north of the levee and adjacent to protected open space. A segment of the regional 40-Mile Loop Trail was constructed on the top of the levee and is open to the public for recreational use. The area south of the levee is dominated by light industrial and large distribution centers. Protected open space located east of FedEx and west of Sundial Road is addressed in the TRIP LTMP Volume II document.

Hydrology

Hydrology at the Company Lake and East Lake sites is primarily a function of groundwater elevations, which are influenced by Columbia River elevations. Surface water elevations in both lakes increase in the winter during the rainy season and during spring freshets when Columbia River elevations are high. In addition, a channel connecting the Columbia River to Company Lake back flows into Company Lake when the river elevations are very high as a result, these sites are sometimes flooded until late June or July.

Invasive Species

Effective invasive species management is a critical component of the Port's stewardship role. Invasive species can affect both ecological and economic systems and are one of the primary maintenance concerns for the Port's mitigation sites. Once established, invasive species can be costly to remove; therefore, preventing the introduction and establishment of invasive species has been shown to be the most cost-efficient strategy for long-term management. The Port documents invasive species management strategies approximately every two years in a Vegetation Management Plan that is publicly available on the Port of Portland website: https://www.portofportland.com/Environment/Mitigation

The TRIP Phase I sites are located in an urban-industrial setting in close proximity to shipping and transportation infrastructure making invasive species an on-going management issue. The Port implements a variety of control methods depending on multiple factors including the species, ODA rank, size of weed population, time of year, etc. The Port seeks to minimize the use of chemical herbicides by prioritizing manual and mechanical removal of invasive species when feasible. Early Detection Rapid Response[1] (EDDR) is employed to prevent the spread of identified invasive species. Target invasive species can fluctuate over time depending on site conditions, introductions, and control efficacy. At the time this document was published, target species included those listed below in Table 1.

[1] More information on Early Detection and Rapid Response prevention efforts is available at: https://www.usgs.gov/ecosystems/invasive-species-program/science/early-detection-and-rapid-response

Table 1: Target Invasive Plants

Botanical Name	Common Name
Alopecurus pratensis	meadow foxtail
Anthoxanthum odoratum	sweet vernalgrass
Cirsium arvense	Canada thistle
Cirsium vulgare	bull thistle
Conium maculatum	poison hemlock
Cytisus scoparius	Scotch broom
Dactylis glomerata	orchardgrass
Daucus carota	Queen Anne's lace
Dipsacus fullonum	Fuller's teasel
Echinochloa crus-galli	barnyardgrass
Holcus lanatus	velvetgrass
Hypochaeris radicata	hairy cats-ear
Lactuca serriola	prickly lettuce
Lythrum salicaria	purple loosestrife
Phalaris arundinacea	reed canarygrass
Rubus armeniacus	Himalayan blackberry
Schedonorus arundinaceus	tall fescue
Senecio jacobaea	stinking willie
Senecio vulgaris	old-man-in-the-Spring
Tanacetum vulgare	common tansy
Verbascum thapsus	common mullein

Restored Native Vegetation

Invasive species, primarily Himalayan blackberry and reed canarygrass, were mechanically removed during initial site grading in 2009. Native vegetation was first seeded in 2009 with the initial tree and shrub plantings completed in January 2010. At Company Lake, existing stands of common spikerush (*Eleocharis palustris*) were salvaged and replaced upon completion of site construction. This approach was successful and provided immediate native cover in the palustrine emergent (PEM) community. Native shrubs were installed sparsely at East Lake while native trees and shrubs were planted densely at Company Lake to establish the palustrine forest (PFO) community. Due to prolonged inundation, the site had to be replanted and seeded several times over the 10-year compliance period. Overall, 298 plant species have been documented as planted, seeded or observed at Company Lake, East Lake and the Tree Mitigation sites. Of those, 195 species are considered native to Oregon as per the PLANTS Database ((USDA, NRCS 2022) see Appendix D).

By 2019, native plant absolute cover at East Lake averaged 94%. The overall dominant species was needle spikerush (*Eleocharis acicularis*), with an average absolute cover of 34%; other common native species included common spikerush, water purslane (*Ludwigia palustris*), and witchgrass (*Panicum capillare*). Dominant vegetation was represented by obligate (OBL) wetland or aquatic plants indicative of the long inundation period during the growing season.

Native plant absolute cover averaged 115% at the Company Lake site. The average native plant cover was greater than 100% because of overlapping herbaceous strata within sample plots. The dominant species included common spikerush (55% cover) and needle spikerush (32% cover); other common native species included knotgrass (*Paspalum distichum*), water purslane, and Douglas' spirea (*Spirea douglasii*). Dominant vegetation was represented by OBL wetland or aquatic plants indicative of the long inundation period during the growing season.

Native vegetation has been successfully established throughout the TRIP Phase I mitigation areas, with high levels of species diversity occurring in the PEM, palustrine scrub-shrub (PSS), and PFO communities. Species diversity within the PEM area, encompassing the depressional wetland and emergent pond areas, ranged between 30 to 40 species observed during the last 5 years of monitoring. Species diversity within the PSS area, including the enhancement and creation areas, ranged between 20 to 30 herbaceous species. Dominant shrub species included red-osier dogwood (*Cornus sericea*), Nootka rose (*Rosa nutkana*), Pacific ninebark (*Physocarpus capitatus*), and Douglas' spirea. Species diversity within the PFO area, including the enhanced and created wetland areas, ranged between 20 to 30 herbaceous species, with red alder (*Alnus rubra*) and Oregon ash (*Fraxinus latifolia*) being the most dominant trees established in that community.

The two tree mitigation projects ultimately resulted in the removal of approximately 2.67 acres of Himalayan blackberry and other invasive species and the installation of nearly 1,600 native trees. In addition, native pollinator species were seeded on the 1290 Trees site and adjacent buffers. Tree species planted include Oregon ash, Douglas fir (*Pseudotsuga menziesii*), Oregon white oak (*Quercus garryana*), Pacific willow (*Salix lucida ssp. lasiandra*), big-leaf maple (*Acer macrophyllum*), black cottonwood (*Populus balsamifera* ssp*. trichocarpa*), black hawthorn (*Crataegus douglasii*), cascara (*Frangula purshiana*), Scouler's willow (*Salix Scouleriana*) and western redcedar (*Thuja plicata*). Flowering native shrub species were also installed.

Wildlife Species

Improving habitat diversity and wildlife species richness was a goal of the TRIP Phase I mitigation project. Cumulative species are documented in Appendix E and include over 100 bird species, 11 mammals, 10 reptiles/amphibians, fish and other observations. Breeding birds that were confirmed by observing young or finding nests included American robin, Canada goose, killdeer, purple martin, red-tailed hawk, red-winged blackbird, spotted sandpiper, tree swallow and wood duck. Purple martins were observed using the installed nesting gourds at East Lake. Other notable species observed in the mitigation areas include freshwater mussels (*Anodonta* spp.), western painted turtles (*Chrysemys picta bellii*), and amphibian egg masses of Pacific chorus frogs (*Pseudacris regilla*), long-toed salamanders (*Ambystoma macrodactylum*) and northern red-legged frogs (*Rana aurora*). An adult northern red-legged frog was also observed at East Lake during egg mass surveys in 2018.

The northern red-legged frog is classified as "sensitive" by the Oregon Department of Fish and Wildlife (ODFW) and listed as a priority species on the Oregon Conservation Strategy. Northern red-legged frogs have been observed at TRIP Phase I mitigation sites, particularly East Lake, during amphibian surveys. The northern red-legged frog prefers wet sites near quiet permanent streams, marshes, ponds, lakes, and other quiet bodies of water. They regularly occur in damp woods and meadows some distance from water, especially during wet weather. In summer, frogs estivate in small mammal burrows, leaf litter, or

other moist sites in or within a few hundred feet of riparian areas (Rathbun et al. 1993). Breeding occurs in permanent waters with eggs attached to stiff submerged stems at the surface of the water (Hayes and Miyamoto 1984). Company and East Lakes with the surrounding cottonwood forest provides habitats critical to amphibian life cycles such as seasonal ponds with structure for egg mass attachment and adjacent grasslands, scrub-shrub, and forested wetlands.

The western painted turtle is classified as "sensitive-critical" by the ODFW and listed as a priority species on the Oregon Conservation Strategy. Western painted turtles have been observed at the TRIP Phase I mitigation sites. Adults and juveniles were observed basking on large woody material in Company and East Lakes and a hatchling was found emerging from a nest near East Lake in 2019.

Western painted turtles inhabit slow-moving streams, ponds, and quiet bodies of water with muddy bottoms and aquatic vegetation; they use open, sunny, sparsely vegetated upland areas for nesting. The western painted turtle is a long-lived species; individuals can live 50 years or more in the wild. This species overwinters buried in the mud underwater. During nesting season between May and July, females emerge from their aquatic habitat to find nest sites on land, typically within 100 meters of their aquatic habitat. The eggs hatch in the fall but hatchlings typically overwinter within the nest cavity, emerging in the spring (ODFW, 2015). Company and East Lakes provide habitats critical to the western painted turtle life cycle such as perennial ponding for overwintering, large woody material for basking and sparse slopes and upland buffers for nesting.

Regulatory Framework[2]

Port mitigation projects provide compensation for unavoidable permanent and temporary impacts to wetlands and other natural resources resulting from development and operational activities undertaken by the Port. If new development is proposed where wetlands or other regulated natural resources are impacted, federal, state, and local laws and regulations require that project alternatives be evaluated to 1) avoid the impact, 2) minimize the impact, and 3) mitigate or compensate for the unavoidable impacts to these natural resources. Mitigation is usually in the form of restoration, establishment (creation), enhancement, or preservation of the habitats and functions lost through the proposed development activities.

Permitting and compliance responsibilities for all mitigation sites are primarily enforced by USACE, DSL, and Oregon Department of Environmental Quality (DEQ), with associated federal, state, and local agencies having influence and offering comments on permit compliance. Mitigation for development impacts may also be required through local municipal regulations. The TRIP Phase I mitigation sites were released from further obligations by DSL and the USACE in 2019.

[2] With the exception of City of Troutdale Land Use Regulations, Regulatory Framework language was developed by SWCA Environmental Consultants for the Port's Randall (2016) and Vanport Wetlands (2018) Long-term Management Plans.

Federal and State Regulations

Clean Water Act, Section 404

Section 404 of the Clean Water Act (CWA), initially enacted in 1972, establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and mining projects. Section 404 requires a permit from the USACE before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities). The applicant must first demonstrate that steps have been taken to avoid impacts to wetlands, streams, and other aquatic resources; that potential impacts have been minimized; and that compensation will be provided for all remaining unavoidable impacts.

Oregon Department of State Lands Removal-Fill Law

The DSL's Removal-Fill Law (Oregon Revised Statute (ORS) 196.795-990) requires a permit to be obtained from DSL prior to removing or placing material in waters of the state. The purpose of the law, enacted in 1967, is to protect public navigation, fishery, and recreational uses of the waters. "Waters of the state" are defined as "all natural waterways including all tidal and non-tidal bays, intermittent streams, constantly flowing streams, lakes, wetlands and other navigable and nonnavigable bodies of water in this state…, where removal of fill activities are regulated under a state-assumed permit program..." (ORS 196.800(15)). The law applies to all landowners, whether private individuals or public agencies.

Endangered Species Act of 1973

The purpose of the Endangered Species Act (ESA) of 1973 is to protect and recover imperiled species and the ecosystems upon which they depend. It is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. Under the ESA, species may be listed as either endangered or threatened. *Endangered* means a species is in danger of extinction throughout all or a significant portion of its range. *Threatened* means a species is likely to become endangered within the foreseeable future. The ESA makes it unlawful for a person to take a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Section 7 of the ESA requires federal agencies to use their legal authorities to promote the conservation purposes of the ESA and to consult with the USFWS and NMFS, as appropriate, to ensure that effects of actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species.

Migratory Bird Treaty Act

The purpose of the Migratory Bird Treaty Act, initially enacted in 1918, is to protect migratory bird species by making it illegal for anyone to "take, possess, import, export, transport, sell, purchase, barter, or offer of sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations." It is administered and enforced by the USFWS. The Migratory Bird Treaty Act implements conventions between the United States and four other countries (Canada, Mexico, Japan, and Russia) for protection of migratory birds. A

complete list of migratory bird species protected under this act are listed in 50 Code of Federal Regulations 10.13.

Local Ordinances

Multnomah County Land Use Regulations

Actions requiring a development application are reviewed by Multnomah County staff for compliance with standards under the Multnomah County Land Use Regulations (Chapter 39 – Multnomah County Zoning Code). These codes and regulations outline protections for the health, safety, and welfare of the public and environment and ensure compatible land uses are co-located. The standards within the Multnomah County Code are based on a collection of standards established by the Oregon State Statutes, Oregon State Administrative Rules, and ordinances adoption by the Multnomah County Board of Commissioners. Guidance for protection of wetland resources is included therein. These regulations are modified and often defer to the standards and ordinances in the City of Portland Land Use Regulations (Title 33 – Zoning Code) for areas within those city limits.

City of Troutdale Land Use Regulations

While the TRIP is located in both Troutdale and Fairview, the Phase I mitigation sites are located only in Troutdale. The City of Troutdale Comprehensive Land Use Plan was adopted in 1990 and last amended in 2014. Goals and objectives of the Plan address land use, open spaces, water quality and natural resources among others consistent with Oregon statewide land use planning goals and Metro Urban Growth Management Functional Plan. To protect and buffer wetlands from development, the City of Troutdale developed requirements for planting of vegetation corridors. City of Troutdale Development Code 4.300: Vegetation Corridor and Slope District describes the administrative and technical requirements for the design and construction of vegetation corridors.

TRIP Phase I Mitigation Site Permitting

Permit Summary

In 2007, the Port purchased the RMC property, a Superfund-designated clean-up site, with the intent to develop it as an industrial park. Development of the site began in 2008 with Phase I construction of a 142-acre FedEx Ground automated package distribution center, 8,500 linear feet of paved trail on top of a levee, a new road (NW Swigert Way), the relocation of Salmon Creek and two tributary ditches, and the construction of a new utility corridor and stormwater facilities for the new development.

The Phase I development impacted 0.28 acre of PEM wetland, and 0.53 acre of waters (Salmon Creek and tributary ditches). Compensatory mitigation consisted of creating 0.42 acre of wetland (1.5:1 ratio) at the East Lake site and rerouting and enhancing 820 linear feet (0.84 acre) of wetland/waters along Salmon Creek. In addition, the USACE required enhancement of 0.67 acre of riparian forest near the confluence of the Sandy and Columbia Rivers (300 Trees site). In addition to this compensatory mitigation, advanced compensatory wetland mitigation credits were proposed and approved by the regulating agencies.

A second permit was issued in 2011 for 0.98 acre of PEM wetland impacts associated with the PDX Logistics Center (mitigation regulated through USACE only). Compensatory mitigation for this impact

was accomplished by using 1.47 acres (1.5:1 ratio) of created wetland from the advanced mitigation areas established at the East Lake wetland mitigation site, as described above. Any advanced mitigation credits remaining from the Company Lake and East Lake wetland mitigation sites would be used for future Port development projects, subject to agency approval. Final wetland creation and enhancement acreages and mitigation credits are based on a wetland delineation conducted by SWCA Environmental Consultants (SWCA) in July 2018. Table 2 below provides mitigation credit calculations for each mitigation site and impact credit/debit for the two projects (TRIP Phase I and PDX Logistics Center). The Company Lake and East Lake sites, as well as the 300 Trees site, are all located north of the levee and are protected under a Conservation Easement with OPRD recorded in 2007 (see Appendix A-1).

Table 2: TRIP Phase I Wetland Mitigation Credit Ledger

Wetland Name	PEM Acres-C	PFO/PSS[5] Acres-C	PEM Acres-E	PFO/PSS[5] Acres-E	Total Acres-C[1]	Total Acres-E[1]	Credits C	Credits E	Total Credits[1]
East Lake Wetland	1.61	2.55	0.43	0.01	4.16	0.44	2.77	0.15	2.92
Company Lake Wetland	0.59	1.49	0.79	0.49	2.08	1.28	1.39	0.43	1.81
Subtotal	2.20	4.04	1.22	0.50	**6.24**	**1.72**	4.16	0.57	**4.73**
Impacts	**DSL**	**USACE**			**Mitigation Acres Used**		**Mitigation Credits Used**		
Project	**Permit**	**Permit**			**Acres-C**	**Acres-E**	**Credits-C**	**Credits-E**	**Credit Balance**
TRIP Phase I[2]	40094-RF	NWP-2007-889			0.42	0	0.28	0	0.28
PDX Logistics Center[3]	N/A	NWP-2011-432			1.47	0	0.98	0	0.98
Subtotal					1.89	0	1.26	0	**1.26**
Advance Credit Balance[4]:					4.35	1.72	2.90	0.57	**3.47**

E = enhancement, C = creation

1. Wetlands acres/credits are based on 2018 Wetland Delineation by SWCA.
2. As per modified permit NWP-2007-889, Port shall compensate the loss of 0.28 acre of PEM wetlands with 0.42 acre of creation at the TRIP Phase I mitigation site at East Lake (1.5:1).
3. As per permit NWP-2011-432, Port shall compensate the loss of .98 acre of PEM wetlands by debiting 1.47 acres from the TRIP Advanced Mitigation acreage (1.5:1).
4. Remaining advance mitigation acreage potentially available must be verified by USACE and DSL at the time a project is proposed/application submitted.
5. East Lake acreage is primarily PSS wheras Company Lake is primarily PFO/PSS.

Mitigation Plan

Mitigation goals include enhancing and expanding an existing degraded wetland, creating a new wetland, enhancing habitat features by adding snags and large wood, increasing native species, increasing structural diversity, improving wildlife habitat, and providing western painted turtle nesting habitat.

The mitigation project is intended to replace the functions and values lost due to the TRIP Phase I and PDX Logistics Center development projects. The TRIP Phase I impact site was a degraded reed canarygrass depression with low wetland functions and values. The wetlands impacted by the PDX Logistics Center project were classified as Palustrine Emergent Seasonally Flooded (PEMC) wetlands and rated low to moderately low for all functions. The mitigation site was previously used by RMC as a waste disposal site and consisted of disturbed soils and noxious vegetation dominated by reed canarygrass and Himalayan blackberry. The mitigation site was selected due to its condition, location, large size, and proximity to riparian open space. Mitigation was expected to substantially increase wetland functions due to the highly degraded and low functions initially present at the impact site.

The goals of the mitigation plan (revised March 2015) for TRIP Phase I are as follows:

- Establish a minimum 0.42-acre created emergent and scrub-shrub wetland at East Lake (1.5:1 ratio) to mitigate for impacts associated with TRIP Phase I development.
- Establish a minimum of 1.47 acres of created emergent and scrub-shrub wetland at East Lake to mitigate for impacts associated with the PDX Logistics Center. In addition, the Phase I mitigation project was to provide advance credits.
- Improve wildlife habitat by diversifying vegetation and installing large woody material and snags.
- Establish wetland hydrology in the mitigation area.
- Create native-dominated wetland community in the mitigation area.
- Enhance 0.67 acre of riparian forest community

The completed wetland mitigation site includes planted 4:1 and 5:1 slopes, a hummock at 13 feet NGVD, and two shallow swales excavated to approximately 8 feet NGVD. The slopes and wetland bottom were seeded with native species. Silts encountered during grading were stockpiled and used as a 4- to 6-inch amendment to the slopes. Five cottonwood trees were removed from the excavation area, cut into manageable pieces, and stockpiled before excavation began. Eight habitat logs, two with root balls intact, were then placed and anchored in the wetland once grading was complete.

The mitigation plan for Company Lake included a graded shelf on the north side of the lake at the west end for a PFO and PSS community with a wide channel wetland extending to the east. The project resulted in 4.6 acres of created and enhanced PEM, PFO and PSS habitat adjacent to the existing Company Lake.

The mitigation plan for East Lake included material removal to the south and west of the existing small lake or pond to create and enhance PEM and PSS habitats. The project resulted in 3.36 acres of new habitat adjacent to this small open water feature.

Tree mitigation was required during permitting for Phase I and Phase II/III development. For Phase I, 300 trees were required to be installed in approximately two thirds of an acre located north of the levee and southeast of East Lake. The mitigation plan included at least one season of site prep to remove Himalayan blackberry, seed with native grasses and install 300 1-gallon native trees (Oregon ash, Douglas fir, Oregon white oak and Pacific willow). For Phase II/III, 1,290 trees were required by the City of Troutdale to be planted within a 2-acre area. The plan for this site (located directly adjacent to 300 Trees) was to conduct two seasons of site prep, seed with a hardy perennial forb and grass mix then plant the site with 1,290 native trees (big-leaf maple, black cottonwood, black hawthorn, Oregon white oak, cascara, Scouler's willow and western red cedar).

Mitigation Results and Site Conditions

Successful mitigation of project impacts was contingent on the success of the TRIP Phase I site's key performance standards expressed in the DSL Permit No. 40094-RF (2017 modification) and USACE Permit No. NWP-2007-889 (2015 modification). The required performance standards and relative level of success are listed in Table 3 below based on site characteristics and agency coordination at the end of the monitoring period (2019).

The TRIP Phase I and PDX Logistics Center mitigation required 0.42 acre and 1.47 acres respectively of PEM/PSS habitat at the East Lake site and enhancing 0.67 acre of riparian forest (USACE only). The 2018 wetland delineation confirmed the wetland acreages at the East Lake site with additional advanced mitigation credits created. By summer 2019, emergent herbaceous habitat at the East Lake site met performance criteria with an average of 94% native absolute cover. Prolonged inundation in previous years had impacted woody survival and ground cover establishment in some areas. No invasive herbaceous cover was observed along the East Lake site transects.

Advanced mitigation includes enhancement and creation of PFO, PSS, and PEM at the Company Lake and East Lake sites. In the PFO advanced mitigation at Company Lake, native plant cover averaged 115% and overall stem density was 3,579 stems per acre including native shrubs. PFO tree species (willow, ash, and cottonwood) stem density was 2,213 stems per acre, far exceeding the density requirements. The USACE requirement to establish 0.67 acre of riparian forest community was met. In addition, the 1290 Tree site was completed with excellent tree establishment and pollinator habitat.

Table 3: TRIP Phase I Performance Standards and Final Results

REGULATORY PERFORMANCE STANDARDS	RESULTS AT YEAR 10 (2019)
0.42 acre created wetland (East Lake) shall meet 1987 Corps Wetland Delineation Manual hydrology criterion	A wetland delineation conducted in July 2018 showed that the project exceeded the required acreage.
Native herbaceous species ≥80% cover by Year 3 and 5	Average native cover was 115% and 94% at Company and East Lakes, respectively
a) *TRIP Phase I credit area at East Lake, 0.42 acres*	84%
b) *PDX Logistics Center credit area at East Lake, 1.47 acres (USACE only)*	97%
c) *Advanced Credit area at East Lake*	94%
Non-native weedy species (designated as 'A' or 'B' by ODA and including reed canarygrass) cover ≤20%	0% cover at Company and East Lakes.
Prolonged Inundated Areas (>7 months/year): 0.2 acre and exempt from cover criteria; noxious aquatic weeds ≤5% cover	Cover criteria was met throughout the mitigation area, regardless of prolonged inundation areas.
Habitat Elements: 1 snag and 1 log (minimum 16" DBH and 30' long) installed in created wetland	East Lake: 3 snags and 8 logs with roots; Company Lake: 3 snags and 5 logs with roots.
Company Lake PFO, advance credit success criteria as modified in 2014: trees shall achieve an average growth of 1 foot per year measured between 2015 and 2019 monitoring years. Alternatively, success may be assumed if 500 trees per acre measure at least 1-inch diameter at 5 inches above ground	Stem density of native willow, Oregon ash and black cottonwood combined was 2,213 stems/acre.
	The density of all native woody vegetation including shrubs (Rosa and Spirea), was 3,579 stems/acre.

REGULATORY PERFORMANCE STANDARDS	RESULTS AT YEAR 10 (2019)
surface for the 2019 monitoring year. Replanting of willow, Oregon ash and black cottonwood may occur at any time during the monitoring period.	Although the 1-foot of growth per year or 500 trees per acre measuring at least 1-inch diameter was not met, DSL and USACE determined it is anticipated that growth will continue, and the site is on a positive trajectory to meet the performance standard.
300 Trees Site, 0.67-acre: establish at least 75 viable tree stems per acre, including desirable recruits (USACE only).	415 live and vigorous native trees were counted.
300 Trees Site, 0.67-acre, native herbaceous cover: will consist of no less than 5 species with no one species comprising less than 10% of the mix with 40% cover in the first year, 60% cover in the second year, and 80% cover for the remainder of the monitoring period except where inundation precludes the establishment of vegetation (USACE only).	High species diversity precluded 5 species at 10% criteria from being met. 70% average absolute native cover, 38% bare ground. Canopy density, especially of coniferous trees, precluded cover criteria from being met.
	USACE determined the site met the intent of the performance standard which was to prevent a monoculture site from establishing.
300 Trees Site, 0.67-acre, weedy plant cover: ≤20% at any time during monitoring period (USACE only).	2% average cover

As required under the permit for Year 9 reporting, the Port contracted a third party (SWCA) to conduct a final wetland delineation and vegetation monitoring of the mitigation site. The delineation showed that more area had been created and enhanced than was originally proposed. Upon submittal of the Year 10 report, the Port pursued the release of TRIP Phase I mitigation sites from further obligation to the regulating agencies. By March of 2020 both agencies agreed to release the site and grant the Port the advance credit balance of 3.47 credits which are available for Port use upon agency approval (see Appendix A-2 for agency release letters). Table 2, on a previous page, represents the final ledger approved by DSL and USACE upon site release in 2020. See Appendix F for site activities that took place 2019-2022.

Wildlife use of the sites was documented 2008-2019 and includes a variety of birds, mammals, amphibians, reptiles, fish and invertebrate species (Appendix E). Significant wildlife observations include nesting purple martin, loggerhead shrike, pileated woodpecker, western meadowlark, willow flycatcher, white-breasted nuthatch, yellow-breasted chat, California floater, northern red-legged frog egg masses and hatchling western painted turtle. Adult western painted turtles are often observed basking on LWD in Company and East Lakes.

Conservation and Management Strategy

The goal for long-term management of the TRIP Phase I mitigation sites is to conserve and maintain natural conditions through continued monitoring and management of on-site natural resources. Long-

term management is intended to be adaptive; therefore, adaptive management should be implemented, as defined in the federal mitigation rule 33 Code of Federal Regulations 2.332 (2008):

> ***Adaptive management*** *means the development of a management strategy that anticipates likely challenges associated with compensatory mitigation projects and provides for the implementation of actions to address those challenges, as well as unforeseen changes to those projects. It requires consideration of the risk, uncertainty, and dynamic nature of compensatory mitigation projects and guides modification of those projects to optimize performance. It includes the selection of appropriate measures that will ensure that the aquatic resource functions are provided and involves analysis of monitoring results to identify potential problems of a compensatory mitigation project and the identification and implementation of measures to rectify those problems.*

Most permit requirements specify that mitigation sites be monitored for 5 years; however, after such a short period of time, the functions and values of mitigation sites rarely match those of natural sites. To meet the Port's objective to "strive to achieve sites that are more sustainable through management actions" the Port's stewardship over the TRIP Phase I mitigation sites will be passed to the Steward, who will continue monitoring and managing the site beyond the immediately foreseeable future even after there is no regulatory requirement to do so. Long-term maintenance will help to ensure that habitat integrity continues to improve, and the site sustains its enhanced condition with minimal intervention.

Permanent Protection Instrument

A conservation easement was secured by the RMC in 2007 with OPRD to preserve 170 acres of open space that includes the Company Lake, East Lake, tree mitigation and surrounding open space located outside the levee. As per the conservation easement "The Preserve, located at the confluence of the Columbia and Sandy Rivers, constitutes a unique property that provides necessary and irreplaceable habitat for resident and migratory wildlife. The Preserve contains mature stands of ash, willow and cottonwood trees, and represents one of the last undeveloped shoreline tracts within the Greater Portland Development Boundary." The Conservation Easement 2007-216746 is included in Appendix A. The Steward would be responsible for financing of continued site management.

Limits of Responsibility

The Steward will not be responsible for future failure of the TRIP Phase I mitigation sites attributed to natural catastrophes such as flood, drought, disease, regional pest infestation, and others that are beyond their reasonable control. Active management is not expected to prevent events of natural ecological change that come about as a result of processes such as climate change, sedimentation due to flooding, excessive drought, and other naturally occurring events that were not caused by or that could not have been prevented by on-site management activities. Over time, natural processes could occur that may reduce wetland function or reduce the current wetland habitat acreage. For example, deposition of sediments during high flows and flooding in parts of the wetlands could result in a natural filling of some areas. Management activities to prevent this natural filling are unnecessary.

Public Use and Access

Given that the mitigation sites are located adjacent to a highly developed area dominated by industrial and transportation infrastructure, vandalism and unauthorized access are issues that affect the maintenance of and public access to the TRIP Phase I mitigation sites. In addition, the mitigation sites are located adjacent to the publicly accessible 40-Mile Loop Trail, and trail users venturing off the trail and into sensitive areas has and continues to be an issue requiring management attention. To protect the TRIP Phase I mitigation sites to the greatest degree possible from vandalism, unauthorized camping, trail users, weeds, and disturbances to wildlife, public access to some sites are currently restricted by fencing, locked gates, and/or signage. In the future, the sites will continue to be protected with a combination of fencing, locked gates, and signage maintained by the Steward. Future public access may include limited access for research and educational opportunities, such as bird watching or plant identification, if the Steward determines that these uses will not conflict with the long-term management objectives of the site and the terms of the conservation easement. The site is intended to remain a natural area with no development of infrastructure including access roads. Aside from the 40-Mile Loop Trail and other areas that are accessible to the public, remaining portions of the TRIP Phase I mitigation sites are intended to remain in natural condition with development limited to the existing infrastructure and publicly accessible trails, as well as minimally invasive trails needed to access portions of the sites for monitoring and maintenance.

Long-Term Management Considerations

Surrounding Land Use

Long-term management of the TRIP Phase I mitigation site is limited to the project areas and Port property boundaries. Surrounding properties are associated with other protected open space and the Troutdale Reynolds Industrial Park which could potentially affect conditions within the site. The condition of the surrounding properties, their land uses, and management practices could potentially be threats to the continued conservation of natural resources within the mitigation sites. Current zoning designations, landscape positions, and potential threats to natural resources associated with surrounding properties are described below.

Utility Corridors and Easements

BPA holds an easement for transmission towers, lines and access at Company and East Lakes. Transmission lines over East Lake put restrictions on vegetation height at that site. Tree species were not included on the original planting plan and natural recruits from the surrounding natural area are managed to limit overall vegetation height. In addition, access to the BPA towers must be maintained at both sites.

Troutdale Reynolds Industrial Park

TRIP is a 700-acre former brownfield that was transformed by the Port and other partners into a job center for the community. The industrial park is located southwest of the mitigation project areas, on the landward side of the levee. TRIP supports mainly shipping and distribution which benefit from proximity to Interstate 84. Possible threats to the long-term ecological objectives of the TRIP Phase I mitigation sites would include air pollutants, introduction of invasive species, noise and light disturbance

to wildlife, shipping trash, people and dogs and collision risk for wildlife on nearby roadways. Undeveloped parcels are still available for build-out and pose an unknown potential threat to the ecological objectives of the enhancement areas.

Columbia River Management

On-site hydrology could be affected primarily by changes in Columbia River water level management associated with the Bonneville Dam and negotiation of the Columbia River Treaty which will change after 2024. The U.S. Department of State is currently leading the effort to negotiate with Canada to modernize the Treaty regime under the following key objectives: continued, careful management of flood risk; ensuring a reliable and economical power supply; and improving the ecosystem in a modernized Treaty regime (US Department of State, 2020).

Human Influence

Human influences could harm the TRIP Phase I mitigation sites in multiple ways, including vandalism, unauthorized habitation, trespassing, and littering. Regular site visits and maintenance will be necessary to address these issues. Site cleanups could be implemented as part of a community volunteer program or non-profit organization's operations. During regular site visits, the sites can be inspected for the presence of unauthorized camps and vandalism. In addition, a segment of the 40-Mile Loop Trail is located adjacent to the mitigation sites and trail users frequently leave the paved trail to access the Sandy and Columbia rivers for fishing and dog-walking, disturbing wildlife and native plantings in these areas. For these reasons, monitoring public access to the sites and maintaining fencing, gates and signage where feasible is an important aspect of site management.

Catastrophic Events

Catastrophic events could be naturally driven, or human caused, including climate-driven events. Possible catastrophic events at TRIP may include fires, massive floods, new species invasions, diseases, excessive long-term drought, etc. Other than flooding, these rare events seldom occur in the area but could cause drastic changes to the TRIP Phase I mitigation sites. However, with consideration of the regional effects of climate change on natural systems, the frequency and magnitude of certain catastrophic events such as flooding, wildfires, and drought, is expected to increase over time (Dalton and Fleishman, 2021). If any of the events were to occur, they may affect the ability to meet the biological goals and objectives in the future at which time the ecological functions of the site should be documented and analyzed to determine future management goals. The management plan should then be revised based on the new site conditions and environmental/human drivers.

Long-Term Management Actions

Long-term management actions will need to be taken to ensure continued enhanced wetland and habitat functions. These actions should be based on results of regular site inspections and specific monitoring and may change over time in response to changes in site conditions. Management activities at a minimum should include invasive species management and restoration of areas where invasive species have displaced native vegetation or where other disturbance has occurred. Other management activities may include replanting or reseeding areas of native plant diversity decline, continued restoration of upland areas with native species that support pollinators and turtle nesting habitat, and

repairing or installing wildlife structures, such as logs, root wads, turtle basking rafts, or other habitat features. Details of preferred best management practices (BMPs), vegetation management, and site maintenance are described in this section.

The long-term vision of management actions should be based on the following key parameters:

- Continual monitoring of vegetation and hydrology
- Controlling invasive species and promoting native vegetation
- Providing wetland and riparian habitat for wildlife
- Through management actions, strive to achieve sites that are more sustainable
- Protecting the site from incompatible land uses
- Support community outreach, research, and education opportunities

Best Management Practices

BMPs should be implemented for all management actions, including ground disturbance, herbicide application, seed application, and planting. BMPs are especially important when handling and applying herbicides on-site, because misuse of these chemicals can cause negative impacts to native plants, wildlife, and water quality. The Port's Vegetation Management Plan discusses herbicide application and includes a list of invasive species commonly encountered at the TRIP Phase I mitigation sites, the types of herbicides to use, and handling and operation of relevant equipment. BMPs pertaining to the prevention of invasive species reestablishment, invasive species monitoring, wildlife considerations, general equipment cleaning, and long-term herbicide use considerations are discussed as well. The latest version is available online at: https://www.portofportland.com/Environment/Mitigation.

An invasive species control plan is important to establish before implementation of new methods or use of new applications. The plan should include the species that will be controlled by the measures and the strategies that will most efficiently control them. These strategies should attempt to integrate the use of mechanical, chemical, and biological methods of controlling the target species, as opposed to relying on one single method of control. Herbicides should always be applied according to their labels and the BMPs described in the most recent Port Vegetation Management Plan.

The TRIP Phase I mitigation sites support many wildlife species and site management practices can potentially interfere with critical life cycles or endanger animals in other ways. BMPs provided in the Port's Vegetation Management Plan help minimize impacts to wildlife by avoiding certain management activities during critical life cycle stages, cleaning boots and other equipment to prevent the spread of amphibian disease and minimizing the use of herbicides.

One of the primary goals of the site is to establish a diverse, native wetland plant community. Given this, it is very important to use chemicals selectively on the target species to avoid contact and harm to native plants. In general, herbicides will be applied by spot spraying or wicking rather than broadcast spraying to avoid harming native plants. All herbicide applicators must be certified and licensed by the Oregon Department of Agriculture.

On-going Vegetation Management

Prior to the creation of the TRIP Phase I mitigation project, the property contained numerous invasive and non-native species especially reed canarygrass and Himalayan blackberry. Through restoration, enhancement and ongoing maintenance by the Port, these invasive species have been largely reduced. Established buffers adjacent to the wetland mitigation sites should continue to be managed for invasive species to prevent encroachment and possible reintroduction from unmanaged areas of the open space.

The best management strategy to prevent the colonization of invasive species is to maintain a healthy, diverse native plant community. Plant communities that have a complex and diverse composition are typically more resilient in the face of invasive and non-native species encroachment. However, if invasive species manage to become established within the site, then the following guidelines can help control them.

An adaptive management strategy is the best approach for developing long-term management actions to prevent the establishment and spread of non-native and invasive species. Management actions should be tailored to the specific situation and conditions whenever possible to achieve the best results. These actions should entail identifying weeds on the site, mapping the distribution of these weeds, researching currently accepted methods for control, implementing weed control plans for each species, and monitoring the efficacy of control efforts.

Specific objectives to be achieved through adaptive non-native and invasive species management include:

- Protect and maintain healthy plant communities by minimizing unnatural ground disturbance that promotes the invasion of non-native/invasive species.
- Prevent the establishment of new non-native/invasive infestations. Conduct regular surveillance for nonnative/invasive species infestations – practice Early Detection Rapid Response.
- Reduce the vigor of existing non-native/invasive populations and limit their spread.
- Eliminate non-native/invasive plant populations or portions of populations.
- Exhaust the non-native/invasive seed bank: prevent seed production and eradicate established plants.
- Monitor efficacy of control methods.
- As infestations decrease in size, locate and monitor isolated patches.
- Reevaluate species and control methods.
- Seed or plant in areas that have been disturbed or treated for invasive species with native species to establish native plant communities able to compete with invasive species.

These guidelines are circular and reflect an adaptive management approach to controlling non-native and invasive species. The intensity of the monitoring and management actions should depend on the relative threat the invasive species pose to the site's integrity and ecosystem and the speed at which the particular species can become established and spread within the site. Examples of on-going maintenance activities can be found in Appendix F.

Vegetation Succession

Vegetation succession is a constant driver upon the landscape. While the intent of the Company Lake enhancement is to establish PFO, other areas of creation and enhancement may transition from PEM to

PSS. However, if inundation during the growing season continues to be high, it is likely that tree and shrub establishment will be suppressed, and succession will be slow. Even with the goal of creating self-sustaining and self-managing natural processes on the TRIP Phase I mitigation sites, continued vegetation management may be necessary to maintain the existing habitat diversity on the site.

General Site Maintenance

In addition to vegetation maintenance, the Steward will be responsible for general maintenance of the site. The Steward will maintain the existing fences and gates surrounding the TRIP Phase I mitigation areas. The current signage associated with the mitigation sites, and any signs that are erected in the future, will also be maintained by the Steward. The Steward will remove trash from the site and work to correct any damage resulting from trespassing or vandalism. Periodic tree maintenance, such as pruning or removal of dead trees that pose a safety hazard, may be required. Removal of mature trees within the site must be coordinated with the City of Troutdale. Trees growing below power lines may require periodic maintenance such as treatment or removal. Trees cannot be planted or encouraged to become established below power lines. Other maintenance activities may include habitat enhancement like native planting or seeding to maintain site integrity.

Long-Term Monitoring and Research

Previous Monitoring

The TRIP Phase I mitigation sites have been regularly monitored since 2009 with involvement of many different agencies, organizations, and consultants as well as Port mitigation staff. After initial site grading in 2009, the site was monitored for 10 years, during which multiple rounds of seeding and planting occurred, as well as various wildlife habitat enhancement endeavors such as turtle basking and nesting habitat and purple martin nesting gourd arrays. Previous monitoring efforts focused on these key aspects of site characteristics:

- On-site hydrology, primarily inundation
- Invasive species presence and cover
- Vegetation quality (species richness, cover, tree mortality, etc.)
- Amphibian presence/absence and egg mass surveys
- Wildlife observations (birds, reptiles, mammals, fish, and invertebrates)

A complete list of monitoring and delineation reports can be found in the TRIP Phase I Site Document List in Appendix G. The Port also provides periodic site management updates in the Mitigation Management Program Site Status Report available on the Port's public website: https://www.portofportland.com/Environment/Mitigation

Future Monitoring

Future monitoring activities on the TRIP Phase I mitigation sites are not mandated by DSL or USACE, but the Port plans to continue regular site inspections for invasive species and other maintenance needs to ensure conservation of habitat and wetland functionality. Monitoring activities in partnerships with other groups such as Metro, grad students and others, that would likely continue into the future may include turtle nesting surveys, monitoring of wildlife use and site conditions, ecological succession,

water quality, and diversity of wildlife usage of the site. Future hydrology monitoring on the site could involve continued surface water level observation, as well as new types of monitoring, which could either study site-specific characteristics or be a part of a larger watershed study. Other possible monitoring activities could include monitoring plant growth and changes over time (herbaceous productivity, tree/shrub growth, etc.) and avian use of the site.

Additionally, amphibian and reptile monitoring on the TRIP Phase I mitigation sites should continue, especially regarding the vulnerable northern red-legged frog population and the western painted turtle. Winter egg mass surveys should continue to both monitor the northern red-legged frog population and the relative health of all amphibian populations on-site. Monitoring of on-site amphibians can provide insights into the health of the local ecosystem. Continued tracking of the western painted turtle population in the restored wetlands is also recommended.

Future Restoration

Continued enhancement of on-site natural resources could increase ecological functions and habitat diversity within the TRIP Phase I mitigation sites to benefit both the local community and natural environment. Future restoration programs could involve enhancement of one or more functions, such as improving habitats for nesting birds, amphibians and turtles, and enhancement of upland buffers by increasing native plant diversity. Restoration opportunities may present themselves in the future and could be pursued in conjunction with other monitoring and research efforts.

Opportunities for Research

Long-term management of the TRIP Phase I mitigation sites could allow for multiple research opportunities. Many research ideas could be implemented in conjunction with regular management activities with minimal cost. Information resulting from research conducted on the site would help to inform future management actions. Understanding the effectiveness of conservation strategies could help inform future wetland mitigation programs. Select research studies may be eligible for additional funding from outside sources to aid in implementation. The research opportunities discussed below are just some of the possible ideas for long-term research that could be conducted at this site.

Vegetation and Invasive Species

- Test efficacy of invasive species removal and planting or recruitment of native plants to out-compete large infestations.
- Vegetation growth and succession for habitat types (PEM, PSS, PFO, upland forest) and the response of volunteer recruitment of native species.

Hydrology

- An extended study of the relationship between Columbia River levels and mitigation site inundation as it relates to the establishment of PFO, PEM and PSS.
- Research could be conducted on surface water levels of the mitigation areas with respect to river level manipulation at the Bonneville Dam.

Wildlife

- Continued study of local pollinators' use of the tree mitigation sites and ways to increase their usage of this site, assuming proper management of chemicals on-site (i.e., no use of pesticides).

- Amphibian studies could be conducted that analyze their use of the site and population dynamics. In addition, habitat suitability for the northern red-legged frog should be studied and occurrences monitored throughout the life of the site, including studies on the interactions between water levels and egg mass attachment and success rate.
- Western painted turtle studies could be conducted that analyze their use of the site and population dynamics. In addition, habitat suitability for the western painted turtle should be studied and occurrences monitored throughout the life of the site, including studies on nest success and nesting habitat suitability.

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APPENDIX A

SUPPORTING DOCUMENTS

Recorded in MULTNOMAH COUNTY, OREGON
C. Swick, Deputy Clerk
A49 37 ATMCS
Total : 201.00

2007-216746 12/21/2007 10:56:19am

SDD46403-CQ
262059

Chicago Title

Space above this line for Recorder's use

After recording, return to:
Oregon Parks and Recreation Department
Attn: Cliff Houck, Resource Mgmt & Planning
725 Summer Street NE, Suite C
Salem, OR 97301

Send tax statements to:
(no change)

CONSERVATION EASEMENT

For valuable consideration, the Reynolds Metals Company, a Delaware corporation ("***Grantor***"), for itself and for its successors in interest, hereby conveys in perpetuity to the State of Oregon, acting by and through the Oregon State Parks and Recreation Department ("***Grantee***"), pursuant to ORS 271.715 to 271.795 the following easement for conservation purposes (the "***Easement***").

RECITALS

A. Grantor owns approximately 170 acres of real property (the "***Preserve***") located in Multnomah County, Oregon, the location of which is more particularly described in Attachment A to this Easement.

B. Grantor completed certain remedial cleanup actions within Company Lake, a portion of the Preserve, and further completed certain habitat restoration in an area adjacent to Company Lake, as part of the Reynolds Metals Company, Troutdale Superfund Site, Natural Resource Damage Settlement ("***NRD Settlement***") between Grantor and the State of Oregon and the United States. Company Lake and the restoration area ("***Lake Restoration Area***") is approximately 21 acres and is more particularly described in Attachment B.

C. As part of the NRD Settlement, Grantor has agreed to convey a permanent preservation easement to protect the Lake Restoration Area. This Easement is intended to serve as the permanent preservation easement agreed to in the NRD Settlement.

D. Grantor further desires to voluntarily limit the remaining approximately 149 acres of the Preserve, as more particularly described on Attachment C (the "***Open***

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Space Area"), to uses consistent with open space/passive recreation uses, as more particularly described in this Easement.

E. Approximately 43 acres of the Open Space Area, as more particularly described in Attachment D (the "***Industrial/Open Space Area***") consists of land adjacent to the Sandy River, that is zoned for industrial use under the City of Troutdale's Development Code. The Lake Restoration Area, Open Space Area and Industrial/Open Space Area are shown for illustrative purposes on maps included with Attachments A, B, C and D.

F. Three remedial capped areas occur within the Preserve, at locations more particularly described in Attachment E. Groundwater monitoring wells have also been placed within the Preserve at various locations. An NPDES discharge pipeline also runs inside the western edge of the Preserve. Each of these features and their respective access roads is a necessary part of the remedy for the Reynolds Metals Company Troutdale Superfund Site and are referred to in this Easement as the "***Superfund Remedy Features***." The Preserve will also be subject to an Easement and Equitable Servitude entered into between Grantor and the Oregon Department of Environmental Quality governing the Superfund Remedy Features.

G. In addition to the Easement and Equitable Servitude described in Recital F, the Preserve is subject to certain pre-existing easements identified in Attachment F (the "***Pre-existing Easements***") in favor of various parties, for electrical transmission lines, flood control levees, and associated purposes. Nothing in this easement is intended to limit the rights of the holders of these Pre-existing Easements.

GENERAL DECLARATION

Grantor declares that the Preserve described in Attachment A is and shall be conveyed, transferred, leased, encumbered, occupied, built upon, or otherwise used or improved, in whole or in part, subject to this Easement and the Pre-existing Easements. Each condition and restriction set forth in this Easement touches and concerns the Preserve, is intended to run with the land for all purposes, to be binding upon all Owners as set forth in this Easement, and to inure to the benefit of Grantee. Grantor further conveys to Grantee the perpetual right to enforce the conditions and restrictions set forth in this Easement.

CONSERVATION VALUES

The Preserve, located at the confluence of the Columbia and Sandy Rivers, constitutes a unique property that provides necessary and irreplaceable habitat for resident and migratory wildlife. The Preserve contains mature stands of ash, willow and cottonwood trees, and represents one of the last undeveloped shoreline tracts within the Greater Portland Development Boundary. A portion of the Preserve, the Industrial/Open Space Area, lies on the southwest

shoreline of the Sandy River, directly across from the western end of the Columbia Gorge Natural Scenic Area, a "Special Management Area" within the Sandy River Delta Plan that restricts development of the area to recreation and open space uses only. Restricting the Preserve to open space and recreational uses will help conserve the habitat values associated with this unique property and will be consistent with the management objectives of the Sandy River Delta Plan.

PERMITTED USES

1.1 Subject to other permitted uses described in this section, the Lake Restoration Area and the Open Space Area must be used for wildlife habitat restoration and preservation purposes only.

1.2 A hydraulic connection consistent with the Conservation Values between Company Lake and East Lake may be created and maintained.

1.3 Grantee may adopt a State Park Master Plan (the "***Plan***") for the Preserve to allow controlled, public recreational use of the Preserve. Any such Plan must be consistent with the Conservation Values, and may further define open space, habitat, and restoration for the Preserve, pursuant to OAR Chapter 736, Division 18. Grantee shall submit any Plan to the United States Department of the Interior for review and approval prior to implementation.

1.4 The Industrial/Open Space Area may be used for active uses consistent with the Conservation Values, such as boat ramps, parking, and motorized access to the Preserve, but only to the extent such uses are allowed as permitted or conditional uses within an Open Space District under the City of Troutdale Development Code and are consistent with any Plan adopted by Grantee, notwithstanding any zoning designation to the contrary that might apply to the Industrial/Open Space Area.

1.5 All restoration and preservation measures must be consistent with FAA regulations regarding the attraction of waterfowl and other avian species that could cause bird strikes with aircraft using the nearby Troutdale Airport and with FAA regulations regarding airspace clearances.

1.6 Under the appropriate circumstances, Grantor may negotiate with appropriate state and federal officials and subsequently, upon their approval, undertake additional habitat enhancement or restoration measures in the Preserve for the purpose of obtaining environmental mitigation or restoration credits.

1.7 The Superfund Remedy Features must be maintained as required by the terms of the NRD Settlement. Nothing in this Easement is intended to restrict access to, or the monitoring, maintenance, or (if permitted) future demolition of the Superfund Remedy Features.

1.8 Nothing in this Easement is intended to subordinate or restrict access to or restrict the operation and maintenance of the Pre-existing Easements.

RESTRICTIONS ON USE

2.1 All uses which would limit the current or potential habitat value of the Lake Restoration Area are prohibited, except as otherwise allowed in section 1.

2.2 Without limitation, the following activities are prohibited:

2.2.1 any encroachment or disruption within the Lake Restoration Area other than for the purpose of additional maintenance and restoration;

2.2.2 use of the Preserve for ball fields, tennis courts, swimming facilities, or community gardens;

2.2.3 any cutting or removal of trees or vegetation from the Preserve, except for the purpose of invasive plant control, removal of danger trees, or removal of obstructions to permitted uses;

2.2.4 any mining, quarry, gravel extraction, grading, excavation, or alteration of the land surface of the Preserve, except as permitted under section 1;

2.2.5 dumping or accumulation of waste or unsightly or offensive materials on the Preserve;

2.2.6 alteration of natural water courses, lake shores, wetlands or other water bodies in or on the Preserve, except as permitted under section 1;

2.2.7 the use of motorized off-road vehicles such as snowmobiles, dune buggies, all-terrain vehicles or motorcycles in the Preserve, except for vehicles needed to facilitate implementation of an approved Plan;

2.2.8 the use of firearms, guns, or rifles for professional or recreational purposes, on or from the Preserve;

2.2.9 introduction of domestic, exotic, or farm animals of any kind on the Preserve unless expressly permitted in writing by Grantee and consistent with preservation, protection, or enhancement of the habitat values of the Preserve and the Permitted Uses;

2.2.10 the placement of signs or billboards on the Preserve, except as needed to facilitate interpretation or access as part of an approved Plan;

2.2.11 the release, storage or transfer of hazardous substances on or about the Preserve, except to the extent such substances are required to be released, stored or transferred in connection with operation of the Superfund Remedy Features; or

2.2.12 any other use of the Preserve that is inconsistent with the Conservation Values or the Permitted Uses.

2.3 As used in this section, the term "hazardous substances" includes, without limitation, any material or substance that is defined as a "hazardous substance" under any federal, state or local law, oil, asbestos, fertilizers, herbicides, other pesticides, and their residues. As used in this section, the term "release" includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment, including the abandonment or discarding of barrels, containers and other closed receptacles containing any hazardous substance, but excludes the proper application of fertilizers, herbicides and other pesticides in accordance with all product and manufacturer instructions as to use and application rate and with all applicable laws, rules, and permits.

2.4 The Preserve may not be further subdivided nor a portion of the Preserve conveyed to a third party. Subject to prior notice, Grantor may convey the entire Preserve (either separately if legally partitioned or subdivided, or as part of a larger parcel) to a successor in title, subject to this Easement.

RIGHT OF ENTRY AND ENFORCEMENT; RELEASE AND INDEMNIFICATION

3.1 Grantee and its representatives, successors, or assigns, may enter upon the Preserve, at reasonable times and with reasonable notice, for the purpose of inspecting the Preserve to ensure compliance with this Easement. In addition, Grantee may enter upon the Preserve at any time and without notice if Grantee reasonably believes that a violation of the terms of this Easement has occurred or is occurring, and entry is reasonably necessary to inspect, to determine compliance with the terms of this Easement or to prevent or to mitigate or repair a breach of the Easement.

3.2 Entry by Grantee pursuant to this Section 3 is not a trespass, and Grantee is not liable to Grantor for such entry and any action taken to abate, mitigate, or cure a violation.

3.3 Upon notice by Grantee of an existing or potential breach of the Easement and the measures and time frames reasonably calculated to cure the breach, Grantor shall cease any activity and commence immediate curative action to return the Preserve to its condition prior to the breach. If Grantor fails to take curative action as prescribed by Grantee, Grantee may undertake the curative action itself and Grantor shall reimburse Grantee for Grantee's expenses, including reasonable legal fees and costs, incurred in undertaking the action.

3.4 Grantee may initiate proceedings at law or in equity against Grantor or any other person who violates or is proposing to violate this Easement, to prevent the proposed violation, or to recover damages for such violation.

3.5 Nothing in this Easement may be construed as giving rise, in the absence of a judicial decree or judgment providing otherwise, to any right or ability in Grantee to exercise physical or managerial control over Grantor's day-to-day operations at the Preserve, or any of Grantor's activities on the Preserve, or otherwise to become an operator with respect to the Preserve within the meaning of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), or ORS 465.255.

3.6 Grantor shall release, indemnify and hold Grantee and its representatives, agents and assigns harmless from any claims, suits, causes of action, penalties, loses, costs, expenses, judgments or liabilities that Grantee suffers or incurs, in whole or in part, for environmental damage or as a potentially responsible party in connection with any claim arising from Grantor's activities at the Preserve prior to or after the grant of this Easement or from any actions or claims of any nature arising out of the granting of this Easement.

GENERAL PROVISIONS

4.1 The conditions and restrictions of this Easement are binding on Grantor and its successors and assigns, and are intended to run with the land in perpetuity.

4.2 Any person who occupies, or acquires any right, title, or interest in or to any portion of the Preserve as a successor in title to Grantor is and will be conclusively deemed to have consented and agreed to every condition and restriction contained in this Easement , whether or not any reference to this Easement is contained in the instrument by which such person or entity acquired an interest in the Preserve.

4.4 Grantor shall notify Grantee at least ten days before the effective date of any conveyance, grant, gift, or other transfer, in whole or in part, of Grantor's interest in the Preserve.

4.5 The terms of this Easement may be modified, or the Easement may be terminated, by written agreement of Grantee and Grantor, but no modification or termination will be effective unless consistent with the terms of the NRD Settlement and the Conservation Values and approved in writing by the United States Department of the Interior, acting in its sole discretion. The termination or modification is not effective until the document evidencing agreement of the parties is properly recorded.

4.6 This Easement is perpetual unless it is extinguished as provided in this Easement.

4.7 This Easement is subject to rights granted or reserved in all documents of record encumbering the Preserve, including the Pre-existing Easements, and is not intended to abrogate, impair or otherwise affect any rights that persons, other than Grantor, may have to use the Preserve pursuant to any such rights.

4.8 Any deed, mortgage, lien, easement, lease or other encumbrance on or affecting the Preserve or any portion of it that arises subsequent to the execution of this Easement must be subordinate to this Easement, and must specifically state that the interest thereby conveyed is subject to this Easement without any modification or amendment to the terms of this Easement and must incorporate this Easement by reference, specifically setting forth the date, office, book and page of the recording of this Easement. The failure of any such instrument to comply with these provisions will not affect Grantee's rights under this Easement.

4.9 All notices sent pursuant to this Easement must be delivered personally or by regular U.S. first class mail to the following addresses unless updated subject to a notice to all parties:

GRANTOR:
Reynolds Metals Company
Attn: Steve M. Shaw
2240 NW Perimeter Way
Troutdale, OR 97060

GRANTEE:
Director
Oregon Parks and Recreation Department
725 Summer St. NE, Suite C
Salem, OR 97301-0792

with a copy to:
Oregon Parks and Recreation Department
Region 2 Manager
2501 SW First Ave. #100
Portland, OR 97201

UNITED STATES DEPARTMENT OF THE INTERIOR:
Regional Director
U.S. Fish and Wildlife Service
911 NE 11th Avenue
Portland, Oregon 97232-4181

with a copy to:
Environmental Contaminants Division Manager
U.S. Fish and Wildlife Service
Oregon Fish and Wildlife Office
2600 SE 98th Avenue, Suite 100
Portland, Oregon 97266

(The remainder of this page has been left blank intentionally.
Signature page follows.)

4.10 If any provision of this Easement or the application of it to any person or circumstance is found to be invalid or unenforceable, the remainder of the provisions of this Easement are intended to remain valid and enforceable.

4.11 This Easement is to be governed by the laws of the State of Oregon.

4.12 By its signature below, Grantee approves and accepts this Easement in accordance with ORS 93.808.

DATED this 13th day of December, 2007.

GRANTOR:
Reynolds Metals Company,
a Delaware ~~corporation~~

By: _____

As: Vice President

Commonwealth of Pennsylvania
~~STATE OF OREGON~~)
) SS
COUNTY OF ~~MULTNOMAH~~ Allegheny)

This instrument was acknowledged before me this 13th day of December, 2007, by Robert S. Bear, as Vice President of Reynolds Metals Company.

_____
Notary Public for Oregon
My commission expires: _____

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Jacqueline L. Murtha, Notary Public
City Of Pittsburgh, Allegheny County
My Commission Expires Jan. 24, 2011
Member, Pennsylvania Association of Notaries

ACCEPTED by GRANTEE (as required by ORS 93.808):

The State of Oregon, acting by and through the Oregon Parks and Recreation Commission on behalf of the Oregon Parks and Recreation Department

By: Tim Wood
Tim Wood
As: Director

STATE OF OREGON)
) SS
COUNTY OF MARION)

This instrument was acknowledged before me this 12 day of DECEMBER, 2007, by Tim Wood, as Director of the Oregon Parks and Recreation Department, acting under authority granted to him by the Oregon Parks and Recreation Commission.

Notary Public for Oregon
My commission expires: May 12, 2009

OFFICIAL SEAL
CLIFF HOUCK
NOTARY PUBLIC - OREGON
COMMISSION NO. 392765
MY COMMISSION EXPIRES MAY 12, 2009

Attachments:

Attachment A – Legal Description of the Preserve
Attachment B – Legal Description of the Lake Restoration Area
Attachment C – Legal Description of the Open Space Area
Attachment D – Legal Description of the Industrial/Open Space Area
Attachment E – Superfund Remedy Features
Attachment F – Pre-existing Easements

ATTACHMENT A
Legal Description
of the Preserve
(5 pages)

A TRACT OF LAND LOCATED IN SECTIONS 23 AND 24, TOWNSHIP 1 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN MULTNOMAH COUNTY, OREGON. SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTH QUARTER CORNER, SECTION 23, TOWNSHIP 1 NORTH, RANGE 3 WEST, W.M.;

THENCE ALONG THE SOUTH LINE OF SAID SECTION NORTH 89°42'47" EAST, 2,648.06 FEET TO THE SOUTHEAST CORNER, SECTION 23, TOWNSHIP 1 NORTH, RANGE 3 WEST, W.M.;

THENCE NORTH 52°45'26" EAST, 1,503.77 FEET TO THE SOUTHEAST CORNER PARCEL II, PARTITION PLAT 1990-23;

THENCE ALONG THE SOUTHERN LINE OF SAID PARCEL 2 NORTH 89°51'07" EAST, 113.64 FEET MORE OR LESS TO THE CENTERLINE OF THE FLOOD CONTROL DIKE AND **TRUE POINT OF BEGINNING**;

THENCE ALONG THE CENTERLINE OF SAID FLOOD CONTROL DIKE THE FOLLOWING COURSES;

NORTH 37°00'41" EAST, 77.57 FEET;
THENCE NORTH 36°44'16" EAST, 208.64 FEET;
THENCE NORTH 36°45'54" EAST, 205.76 FEET;
THENCE NORTH 36°50'16" EAST, 205.97 FEET;
THENCE NORTH 36°45'03" EAST, 209.13 FEET;
THENCE NORTH 36°51'00" EAST, 118.36 FEET;
THENCE NORTH 33°59'25" EAST, 121.15 FEET;
THENCE NORTH 28°05'21" EAST, 103.17 FEET;
THENCE NORTH 22°03'27" EAST, 110.30 FEET;
THENCE NORTH 14°06'51" EAST, 103.31 FEET;
THENCE NORTH 07°23'04" EAST, 105.94 FEET;
THENCE NORTH 00°10'41" WEST, 108.37 FEET;
THENCE NORTH 07°34'16" WEST, 102.77 FEET;
THENCE NORTH 13°10'47" WEST, 110.42 FEET;
THENCE NORTH 20°51'56" WEST, 106.41 FEET;
THENCE NORTH 27°58'14" WEST, 104.41 FEET;
THENCE NORTH 34°26'07" WEST, 101.18 FEET;
THENCE NORTH 41°25'13" WEST, 106.02 FEET;
THENCE NORTH 49°08'21" WEST, 104.98 FEET;
THENCE NORTH 55°06'42" WEST, 101.67 FEET;
THENCE NORTH 59°54'59" WEST, 107.24 FEET;
THENCE NORTH 61°31'48" WEST, 107.65 FEET;
THENCE NORTH 62°08'26" WEST, 105.61 FEET;
THENCE NORTH 64°42'16" WEST, 105.65 FEET;
THENCE NORTH 65°49'21" WEST, 105.05 FEET;
THENCE NORTH 63°38'38" WEST, 107.34 FEET;
THENCE NORTH 60°00'04" WEST, 108.21 FEET;
THENCE NORTH 56°07'35" WEST, 102.12 FEET;
THENCE NORTH 55°43'13" WEST, 114.10 FEET;
THENCE NORTH 59°49'03" WEST, 103.26 FEET;
THENCE NORTH 63°46'26" WEST, 108.16 FEET;
THENCE NORTH 66°13'44" WEST, 108.27 FEET;
THENCE NORTH 66°53'46" WEST, 110.49 FEET;
THENCE NORTH 67°08'22" WEST, 182.34 FEET;
THENCE NORTH 67°24'07" WEST, 102.92 FEET;

THENCE NORTH 67°59'36" WEST, 107.72 FEET;
THENCE NORTH 69°32'39" WEST, 114.67 FEET;
THENCE NORTH 72°05'45" WEST, 109.54 FEET;
THENCE NORTH 74°43'02" WEST, 110.20 FEET;
THENCE NORTH 76°24'12" WEST, 108.76 FEET;
THENCE NORTH 75°36'17" WEST, 108.04 FEET;
THENCE NORTH 75°16'13" WEST, 108.13 FEET;
THENCE NORTH 72°44'27" WEST, 112.20 FEET;
THENCE NORTH 70°17'03" WEST, 131.14 FEET;
THENCE NORTH 67°25'32" WEST, 113.83 FEET;
THENCE NORTH 66°38'56" WEST, 106.08 FEET;
THENCE NORTH 66°41'35" WEST, 103.88 FEET;
THENCE NORTH 69°03'54" WEST, 104.87 FEET;
THENCE NORTH 71°42'33" WEST, 101.74 FEET;
THENCE NORTH 74°24'54" WEST, 111.71 FEET;
THENCE NORTH 74°29'39" WEST, 105.36 FEET;
THENCE NORTH 75°45'15" WEST, 101.30 FEET;
THENCE NORTH 76°51'00" WEST, 109.34 FEET;
THENCE NORTH 77°32'55" WEST, 108.50 FEET;
THENCE NORTH 80°06'49" WEST, 101.52 FEET;
THENCE NORTH 82°44'28" WEST, 101.25 FEET;
THENCE NORTH 84°09'23" WEST, 100.57 FEET;
THENCE NORTH 85°02'59" WEST, 101.50 FEET;
THENCE NORTH 83°32'07" WEST, 100.02 FEET;
THENCE NORTH 82°33'56" WEST, 37.18 FEET;
THENCE NORTH 80°29'17" WEST, 35.07 FEET;
THENCE NORTH 77°17'36" WEST, 110.46 FEET;
THENCE NORTH 74°10'35" WEST, 100.12 FEET;
THENCE NORTH 73°51'10" WEST, 106.32 FEET;
THENCE NORTH 76°07'20" WEST, 104.03 FEET;
THENCE NORTH 78°46'49" WEST, 108.04 FEET;
THENCE NORTH 79°36'31" WEST, 109.10 FEET;
THENCE NORTH 80°37'17" WEST, 110.39 FEET;
THENCE NORTH 81°55'22" WEST, 110.61 FEET;
THENCE NORTH 80°41'25" WEST, 112.49 FEET;
THENCE NORTH 80°14'42" WEST, 125.21 FEET;
THENCE NORTH 81°10'08" WEST, 108.44 FEET;
THENCE NORTH 82°02'46" WEST, 110.45 FEET;
THENCE NORTH 84°12'56" WEST, 99.87 FEET;
THENCE SOUTH 89°43'18" WEST, 25.00 FEET TO THE CENTERLINE OF NW SUNDIAL ROAD;

THENCE ALONG THE NORTHERLY EXTENSION OF SAID CENTERLINE NORTH 00°16'42" WEST, 1,655.39 FEET MORE OR LESS TO THE MEAN HIGH WATER LINE OF THE LEFT BANK OF THE COLUMBIA RIVER;

THENCE ALONG THE MEAN HIGH WATER LINE OF THE LEFT BANK OF THE COLUMBIA AND SANDY RIVERS THE FOLLOWING COURSES;

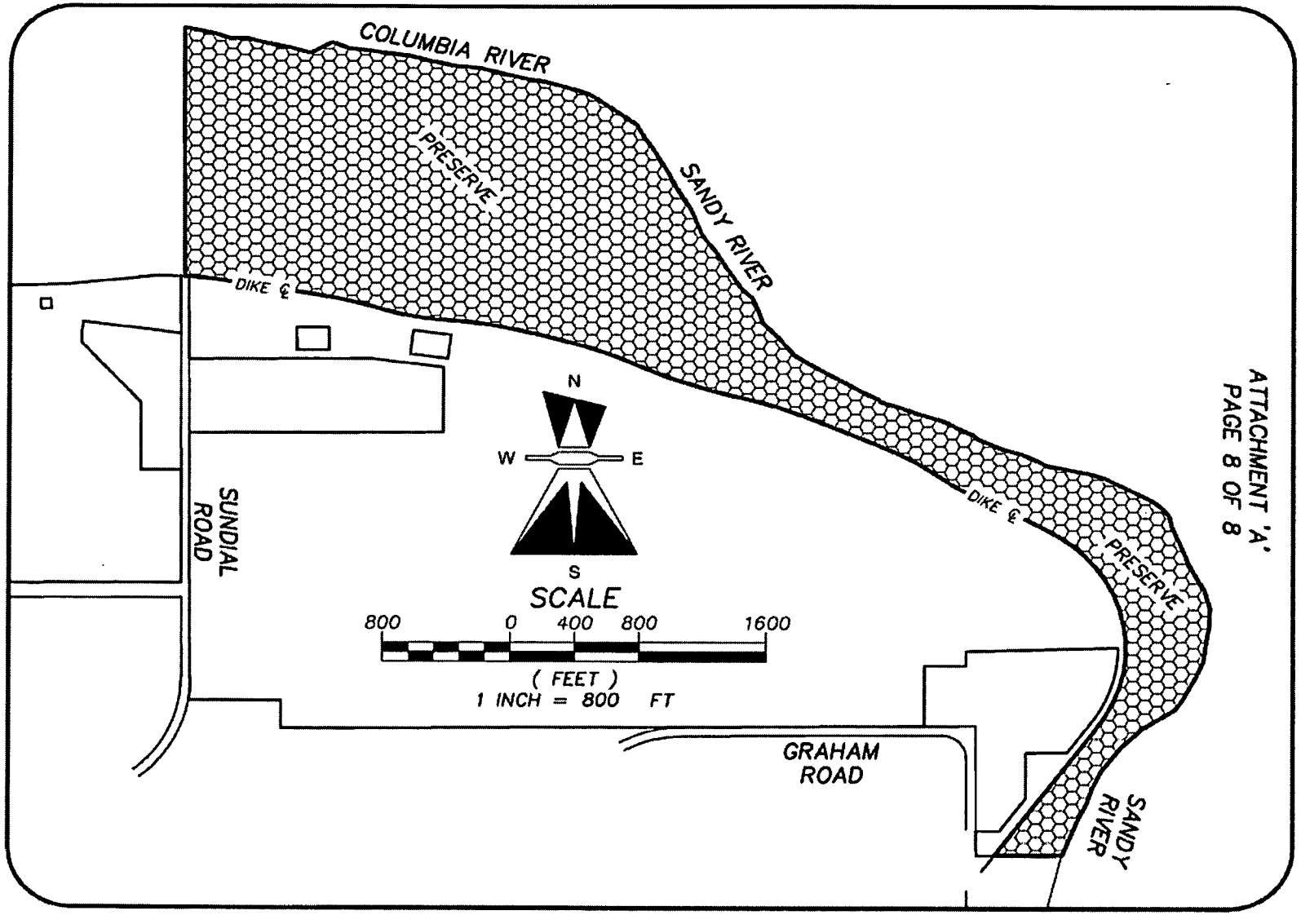
SOUTH 78°23'17" EAST, 191.56 FEET;
THENCE SOUTH 70°23'26" EAST, 97.42 FEET;
THENCE NORTH 89°07'37" EAST, 103.02 FEET;
THENCE SOUTH 75°51'20" EAST, 148.58 FEET;
THENCE SOUTH 78°14'13" EAST, 157.43 FEET;
THENCE SOUTH 74°18'33" EAST, 104.34 FEET;
THENCE NORTH 63°01'48" EAST, 153.81 FEET;
THENCE SOUTH 68°54'19" EAST, 116.32 FEET;
THENCE SOUTH 85°06'24" EAST, 127.65 FEET;
THENCE SOUTH 80°10'53" EAST, 111.57 FEET;

THENCE SOUTH 83°31'21" EAST, 140.91 FEET;
THENCE SOUTH 75°45'30" EAST, 125.40 FEET;
THENCE SOUTH 77°57'29" EAST, 164.44 FEET;
THENCE SOUTH 83°59'15" EAST, 169.31 FEET;
THENCE SOUTH 75°53'29" EAST, 253.98 FEET;
THENCE SOUTH 79°45'27" EAST, 157.48 FEET;
THENCE SOUTH 74°49'55" EAST, 126.98 FEET;
THENCE SOUTH 72°25'31" EAST, 138.38 FEET;
THENCE SOUTH 61°31'41" EAST, 55.35 FEET;
THENCE SOUTH 55°10'27" EAST, 314.18 FEET;
THENCE SOUTH 29°33'26" EAST, 94.23 FEET;
THENCE SOUTH 36°03'27" EAST, 93.83 FEET;
THENCE SOUTH 31°16'02" EAST, 82.56 FEET;
THENCE SOUTH 31°19'16" EAST, 110.34 FEET;
THENCE SOUTH 26°25'50" EAST, 119.34 FEET;
THENCE SOUTH 30°58'43" EAST, 159.29 FEET;
THENCE SOUTH 23°31'40" EAST, 74.72 FEET;
THENCE SOUTH 23°58'13" EAST, 107.25 FEET;
THENCE SOUTH 40°37'19" EAST, 144.39 FEET;
THENCE SOUTH 31°45'00" EAST, 127.55 FEET;
THENCE SOUTH 34°34'58" EAST, 184.20 FEET;
THENCE SOUTH 49°50'19" EAST, 78.77 FEET;
THENCE SOUTH 23°31'12" EAST, 91.68 FEET;
THENCE SOUTH 19°57'32" EAST, 90.49 FEET;
THENCE SOUTH 44°44'38" EAST, 114.57 FEET;
THENCE SOUTH 41°25'49" EAST, 181.78 FEET;
THENCE SOUTH 58°31'02" EAST, 133.94 FEET;
THENCE SOUTH 60°44'50" EAST, 114.64 FEET;
THENCE SOUTH 61°04'38" EAST, 128.57 FEET;
THENCE SOUTH 59°36'02" EAST, 104.04 FEET;
THENCE SOUTH 64°38'22" EAST, 119.90 FEET;
THENCE SOUTH 22°24'10" EAST, 14.71 FEET;
THENCE SOUTH 73°00'27" EAST, 133.20 FEET;
THENCE SOUTH 69°02'00" EAST, 101.69 FEET;
THENCE SOUTH 73°30'35" EAST, 113.77 FEET;
THENCE SOUTH 69°40'45" EAST, 88.85 FEET;
THENCE SOUTH 62°00'47" EAST, 111.76 FEET;
THENCE SOUTH 66°48'46" EAST, 66.04 FEET;
THENCE SOUTH 48°29'12" EAST, 47.31 FEET;
THENCE SOUTH 66°43'55" EAST, 73.06 FEET;
THENCE SOUTH 66°21'47" EAST, 105.58 FEET;
THENCE SOUTH 75°27'39" EAST, 104.66 FEET;
THENCE SOUTH 65°51'52" EAST, 108.50 FEET;
THENCE SOUTH 61°33'26" EAST, 74.21 FEET;
THENCE SOUTH 79°00'30" EAST, 263.47 FEET;
THENCE SOUTH 71°58'26" EAST, 105.86 FEET;
THENCE SOUTH 63°15'46" EAST, 119.41 FEET;
THENCE SOUTH 63°14'28" EAST, 113.60 FEET;
THENCE SOUTH 61°44'34" EAST, 95.56 FEET;
THENCE SOUTH 52°45'12" EAST, 77.18 FEET;
THENCE SOUTH 39°24'54" EAST, 68.91 FEET;
THENCE SOUTH 11°20'39" EAST, 71.86 FEET;
THENCE SOUTH 23°55'47" EAST, 188.62 FEET;
THENCE SOUTH 20°58'08" EAST, 76.12 FEET;
THENCE SOUTH 27°34'57" EAST, 92.61 FEET;
THENCE SOUTH 31°02'32" EAST, 106.73 FEET;

THENCE SOUTH 16°10'57" EAST, 123.86 FEET;
THENCE SOUTH 02°48'42" EAST, 9.82 FEET;
THENCE SOUTH 01°31'27" WEST, 116.76 FEET;
THENCE SOUTH 10°16'14" WEST, 117.10 FEET;
THENCE SOUTH 07°25'59" WEST, 120.94 FEET;
THENCE SOUTH 23°48'28" WEST, 110.89 FEET;
THENCE SOUTH 29°28'12" WEST, 86.70 FEET;
THENCE SOUTH 27°49'21" WEST, 90.37 FEET;
THENCE SOUTH 36°07'42" WEST, 79.98 FEET;
THENCE SOUTH 58°17'25" WEST, 154.28 FEET;
THENCE SOUTH 56°34'39" WEST, 87.36 FEET;
THENCE SOUTH 46°58'28" WEST, 174.77 FEET;
THENCE SOUTH 37°12'56" WEST, 205.06 FEET;
THENCE SOUTH 25°54'58" WEST, 126.21 FEET;
THENCE SOUTH 18°38'11" WEST, 106.49 FEET;
THENCE SOUTH 27°44'12" WEST, 105.77 FEET;
THENCE SOUTH 22°48'50" WEST, 111.04 FEET;
THENCE SOUTH 21°51'20" WEST, 154.55 FEET TO THE SOUTHERN LINE OF PARCEL 2 OF SAID PARTITION PLAT 1990-23;
THENCE ALONG SAID SOUTHERN LINE SOUTH 89°51'07" WEST, 420.46 FEET TO THE POINT OF BEGINNING.

SAID TRACT CONTAINS 169.93 ACRES MORE OR LESS.

BEARINGS BASED ON SURVEY NO 60128, SURVEY RECORDS OF MULTNOMAH COUNTY, OREGON.


COLUMBIA RIVER
PRESERVE
SANDY RIVER
DIKE ℄
N
W
E
S
SUNDIAL ROAD
DIKE ℄
PRESERVE
SCALE
800 0 400 800 1600
(FEET)
1 INCH = 800 FT
GRAHAM ROAD
SANDY RIVER
ATTACHMENT 'A'
PAGE 8 OF 8

ATTACHMENT B
Legal Description
of the Lake Restoration Area
(3 pages)

A TRACT OF LAND LOCATED IN SECTIONS 23, TOWNSHIP 1 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN MULTNOMAH COUNTY, OREGON. SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTH QUARTER CORNER, SECTION 23, TOWNSHIP 1 NORTH, RANGE 3 WEST, W.M.;

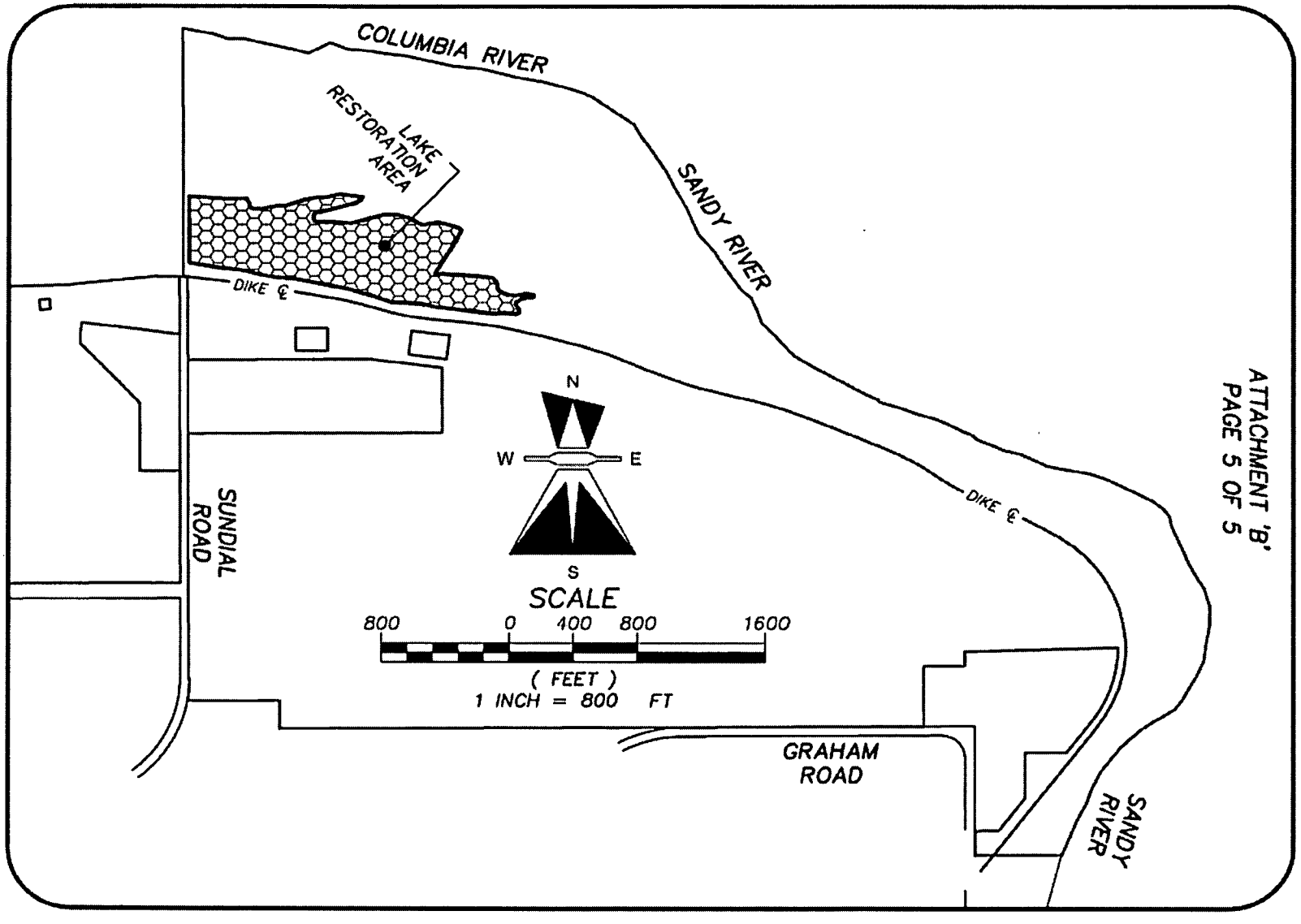
THENCE ALONG THE SOUTH LINE OF SAID SECTION NORTH 89°42'47" EAST, 2,648.06 FEET TO THE SOUTHEAST CORNER, SECTION 23, TOWNSHIP 1 NORTH, RANGE 3 WEST, W.M.;

THENCE NORTH 37°27'28" WEST, 6,106.88 FEET TO THE **TRUE POINT OF BEGINNING**;
THENCE NORTH 00°02'50" WEST, 441.39 FEET;
THENCE SOUTH 86°29'21" EAST, 237.39 FEET;
THENCE NORTH 89°05'06" EAST, 119.81 FEET;
THENCE SOUTH 31°16'58" EAST, 37.47 FEET;
THENCE SOUTH 11°08'11" EAST, 29.08 FEET;
THENCE SOUTH 69°09'28" EAST, 23.94 FEET;
THENCE SOUTH 89°51'12" EAST, 44.29 FEET;
THENCE NORTH 79°32'50" EAST, 67.22 FEET;
THENCE NORTH 78°00'08" EAST, 48.23 FEET;
THENCE SOUTH 86°26'53" EAST, 39.98 FEET;
THENCE NORTH 67°54'22" EAST, 44.50 FEET;
THENCE NORTH 73°59'31" EAST, 41.69 FEET;
THENCE NORTH 70°30'23" EAST, 51.95 FEET;
THENCE NORTH 79°42'53" EAST, 65.94 FEET;
THENCE SOUTH 88°26'38" EAST, 48.25 FEET;
THENCE NORTH 76°31'42" EAST, 93.78 FEET;
THENCE SOUTH 82°41'46" EAST, 147.47 FEET;
THENCE SOUTH 37°03'48" WEST, 25.80 FEET;
THENCE SOUTH 56°27'24" WEST, 24.57 FEET;
THENCE SOUTH 68°32'44" WEST, 26.16 FEET;
THENCE SOUTH 74°57'59" WEST, 249.76 FEET;
THENCE SOUTH 26°49'10" WEST, 15.38 FEET;
THENCE SOUTH 08°39'47" EAST, 21.00 FEET;
THENCE SOUTH 14°21'08" EAST, 21.20 FEET;
THENCE SOUTH 87°54'12" EAST, 125.77 FEET;
THENCE SOUTH 86°53'36" EAST, 101.49 FEET;
THENCE NORTH 76°32'32" EAST, 77.62 FEET;
THENCE NORTH 70°23'54" EAST, 63.17 FEET;
THENCE NORTH 76°15'07" EAST, 79.78 FEET;
THENCE SOUTH 88°38'27" EAST, 77.56 FEET;
THENCE SOUTH 72°22'22" EAST, 79.29 FEET;
THENCE SOUTH 60°08'10" EAST, 86.77 FEET;
THENCE NORTH 80°02'18" EAST, 104.16 FEET;
THENCE SOUTH 75°08'54" EAST, 92.30 FEET;
THENCE SOUTH 67°19'17" EAST, 53.09 FEET;
THENCE SOUTH 55°13'05" EAST, 9.40 FEET;
THENCE SOUTH 24°40'24" WEST, 94.34 FEET;
THENCE SOUTH 31°22'57" WEST, 242.00 FEET;
THENCE SOUTH 86°24'59" EAST, 266.68 FEET;
THENCE SOUTH 81°40'20" EAST, 75.60 FEET;
THENCE SOUTH 89°56'53" EAST, 10.40 FEET;

THENCE SOUTH 70°27'20" EAST, 7.06 FEET;
THENCE SOUTH 51°24'35" EAST, 13.28 FEET;
THENCE SOUTH 39°28'25" EAST, 12.66 FEET;
THENCE SOUTH 41°51'00" EAST, 13.31 FEET;
THENCE SOUTH 17°14'48" EAST, 15.43 FEET;
THENCE SOUTH 03°19'40" EAST, 14.86 FEET;
THENCE SOUTH 07°46'48" EAST, 16.33 FEET;
THENCE SOUTH 32°44'29" EAST, 8.86 FEET;
THENCE SOUTH 52°28'15" EAST, 13.49 FEET;
THENCE SOUTH 62°41'42" EAST, 33.29 FEET;
THENCE SOUTH 72°56'20" EAST, 29.97 FEET;
THENCE SOUTH 84°56'38" EAST, 36.88 FEET;
THENCE NORTH 84°18'36" EAST, 29.77 FEET;
THENCE NORTH 74°10'51" EAST, 30.82 FEET;
THENCE NORTH 89°49'24" EAST, 16.72 FEET;
THENCE SOUTH 79°36'59" EAST, 36.44 FEET;
THENCE SOUTH 47°52'25" EAST, 6.30 FEET;
THENCE SOUTH 03°01'07" EAST, 7.63 FEET;
THENCE SOUTH 62°04'39" WEST, 6.98 FEET;
THENCE SOUTH 84°09'57" WEST, 37.09 FEET;
THENCE SOUTH 76°59'53" WEST, 28.00 FEET;
THENCE SOUTH 66°24'47" WEST, 27.61 FEET;
THENCE SOUTH 51°24'34" WEST, 17.76 FEET;
THENCE SOUTH 27°08'09" WEST, 10.05 FEET;
THENCE SOUTH 03°32'28" WEST, 9.40 FEET;
THENCE SOUTH 32°36'58" EAST, 35.88 FEET;
THENCE SOUTH 18°41'12" EAST, 17.10 FEET;
THENCE SOUTH 12°54'38" WEST, 5.71 FEET;
THENCE SOUTH 68°40'04" WEST, 9.59 FEET;
THENCE SOUTH 77°03'42" WEST, 12.54 FEET;
THENCE NORTH 87°34'24" WEST, 16.33 FEET;
THENCE NORTH 86°13'49" WEST, 51.01 FEET;
THENCE SOUTH 88°27'43" WEST, 69.02 FEET;
THENCE NORTH 88°36'08" WEST, 50.85 FEET;
THENCE NORTH 80°59'55" WEST, 56.96 FEET;
THENCE NORTH 82°52'26" WEST, 138.31 FEET;
THENCE NORTH 83°29'42" WEST, 120.99 FEET;
THENCE NORTH 77°52'00" WEST, 99.17 FEET;
THENCE NORTH 85°20'04" WEST, 60.25 FEET;
THENCE NORTH 88°12'01" WEST, 120.40 FEET;
THENCE NORTH 70°08'53" WEST, 145.02 FEET;
THENCE NORTH 73°25'29" WEST, 146.60 FEET;
THENCE NORTH 78°00'07" WEST, 144.65 FEET;
THENCE NORTH 79°03'35" WEST, 181.88 FEET;
THENCE NORTH 85°04'45" WEST, 172.72 FEET;
THENCE NORTH 73°56'44" WEST, 139.28 FEET;
THENCE NORTH 82°43'03" WEST, 190.06 FEET;
THENCE NORTH 80°09'05" WEST, 174.10 FEET TO THE POINT OF BEGINNING.

SAID TRACT CONTAINS 20.88 ACRES MORE OR LESS.

BEARINGS BASED ON SURVEY NO 60128, SURVEY RECORDS OF MULTNOMAH COUNTY, OREGON.


COLUMBIA RIVER
LAKE RESTORATION AREA
SANDY RIVER
DIKE ℄
N
W
E
S
SUNDIAL ROAD
DIKE ℄
SCALE
800 0 400 800 1600
(FEET)
1 INCH = 800 FT
GRAHAM ROAD
SANDY RIVER
ATTACHMENT 'B'
PAGE 5 OF 5

ATTACHMENT C
Legal Description
of the Open Space Area
(7 pages)

A TRACT OF LAND LOCATED IN SECTIONS 23 AND 24, TOWNSHIP 1 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN MULTNOMAH COUNTY, OREGON. SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTH QUARTER CORNER, SECTION 23, TOWNSHIP 1 NORTH, RANGE 3 WEST, W.M.;

THENCE ALONG THE SOUTH LINE OF SAID SECTION NORTH 89°42'47" EAST, 2,648.06 FEET TO THE SOUTHEAST CORNER, SECTION 23, TOWNSHIP 1 NORTH, RANGE 3 WEST, W.M.;

THENCE NORTH 52°45'26" EAST, 1,503.77 FEET TO THE SOUTHEAST CORNER PARCEL II, PARTITION PLAT 1990-23;

THENCE ALONG THE SOUTHERN LINE OF SAID PARCEL 2 NORTH 89°51'07" EAST, 113.64 FEET MORE OR LESS TO THE CENTERLINE OF THE FLOOD CONTROL DIKE AND **TRUE POINT OF BEGINNING**;

THENCE ALONG THE CENTERLINE OF SAID FLOOD CONTROL DIKE THE FOLLOWING COURSES;

NORTH 37°00'41" EAST, 77.57 FEET;
THENCE NORTH 36°44'16" EAST, 208.64 FEET;
THENCE NORTH 36°45'54" EAST, 205.76 FEET;
THENCE NORTH 36°50'16" EAST, 205.97 FEET;
THENCE NORTH 36°45'03" EAST, 209.13 FEET;
THENCE NORTH 36°51'00" EAST, 118.36 FEET;
THENCE NORTH 33°59'25" EAST, 121.15 FEET;
THENCE NORTH 28°05'21" EAST, 103.17 FEET;
THENCE NORTH 22°03'27" EAST, 110.30 FEET;
THENCE NORTH 14°06'51" EAST, 103.31 FEET;
THENCE NORTH 07°23'04" EAST, 105.94 FEET;
THENCE NORTH 00°10'41" WEST, 108.37 FEET;
THENCE NORTH 07°34'16" WEST, 102.77 FEET;
THENCE NORTH 13°10'47" WEST, 110.42 FEET;
THENCE NORTH 20°51'56" WEST, 106.41 FEET;
THENCE NORTH 27°58'14" WEST, 104.41 FEET;
THENCE NORTH 34°26'07" WEST, 101.18 FEET;
THENCE NORTH 41°25'13" WEST, 106.02 FEET;
THENCE NORTH 49°08'21" WEST, 104.98 FEET;
THENCE NORTH 55°06'42" WEST, 101.67 FEET;
THENCE NORTH 59°54'59" WEST, 107.24 FEET;
THENCE NORTH 61°31'48" WEST, 107.65 FEET;
THENCE NORTH 62°08'26" WEST, 105.61 FEET;
THENCE NORTH 64°42'16" WEST, 105.65 FEET;
THENCE NORTH 65°49'21" WEST, 105.05 FEET;
THENCE NORTH 63°38'38" WEST, 107.34 FEET;
THENCE NORTH 60°00'04" WEST, 108.21 FEET;
THENCE NORTH 56°07'35" WEST, 102.12 FEET;
THENCE NORTH 55°43'13" WEST, 114.10 FEET;
THENCE NORTH 59°49'03" WEST, 103.26 FEET;
THENCE NORTH 63°46'26" WEST, 108.16 FEET;
THENCE NORTH 66°13'44" WEST, 108.27 FEET;
THENCE NORTH 66°53'46" WEST, 110.49 FEET;
THENCE NORTH 67°08'22" WEST, 182.34 FEET;
THENCE NORTH 67°24'07" WEST, 102.92 FEET;

THENCE NORTH 67°59'36" WEST, 107.72 FEET;
THENCE NORTH 69°32'39" WEST, 114.67 FEET;
THENCE NORTH 72°05'45" WEST, 109.54 FEET;
THENCE NORTH 74°43'02" WEST, 110.20 FEET;
THENCE NORTH 76°24'12" WEST, 108.76 FEET;
THENCE NORTH 75°36'17" WEST, 108.04 FEET;
THENCE NORTH 75°16'13" WEST, 108.13 FEET;
THENCE NORTH 72°44'27" WEST, 112.20 FEET;
THENCE NORTH 70°17'03" WEST, 131.14 FEET;
THENCE NORTH 67°25'32" WEST, 113.83 FEET;
THENCE NORTH 66°38'56" WEST, 106.08 FEET;
THENCE NORTH 66°41'35" WEST, 103.88 FEET;
THENCE NORTH 69°03'54" WEST, 104.87 FEET;
THENCE NORTH 71°42'33" WEST, 101.74 FEET;
THENCE NORTH 74°24'54" WEST, 111.71 FEET;
THENCE NORTH 74°29'39" WEST, 105.36 FEET;
THENCE NORTH 75°45'15" WEST, 101.30 FEET;
THENCE NORTH 76°51'00" WEST, 109.34 FEET;
THENCE NORTH 77°32'55" WEST, 108.50 FEET;
THENCE NORTH 80°06'49" WEST, 101.52 FEET;
THENCE NORTH 82°44'28" WEST, 101.25 FEET;
THENCE NORTH 84°09'23" WEST, 100.57 FEET;
THENCE NORTH 85°02'59" WEST, 101.50 FEET;
THENCE NORTH 83°32'07" WEST, 100.02 FEET;
THENCE NORTH 82°33'56" WEST, 37.18 FEET;
THENCE NORTH 80°29'17" WEST, 35.07 FEET;
THENCE NORTH 77°17'36" WEST, 110.46 FEET;
THENCE NORTH 74°10'35" WEST, 100.12 FEET;
THENCE NORTH 73°51'10" WEST, 106.32 FEET;
THENCE NORTH 76°07'20" WEST, 104.03 FEET;
THENCE NORTH 78°46'49" WEST, 108.04 FEET;
THENCE NORTH 79°36'31" WEST, 109.10 FEET;
THENCE NORTH 80°37'17" WEST, 110.39 FEET;
THENCE NORTH 81°55'22" WEST, 110.61 FEET;
THENCE NORTH 80°41'25" WEST, 112.49 FEET;
THENCE NORTH 80°14'42" WEST, 125.21 FEET;
THENCE NORTH 81°10'08" WEST, 108.44 FEET;
THENCE NORTH 82°02'46" WEST, 110.45 FEET;
THENCE NORTH 84°12'56" WEST, 99.87 FEET;
THENCE SOUTH 89°43'18" WEST, 25.00 FEET TO THE CENTERLINE OF NW SUNDIAL ROAD;
THENCE ALONG THE NORTHERLY EXTENSION OF SAID CENTERLINE NORTH 00°16'42" WEST,
1,655.39 FEET MORE OR LESS TO THE MEAN HIGH WATER LINE OF THE LEFT BANK OF THE COLUMBIA RIVER;
THENCE ALONG THE MEAN HIGH WATER LINE OF THE LEFT BANK OF THE COLUMBIA AND SANDY RIVERS THE FOLLOWING COURSES;
SOUTH 78°23'17" EAST, 191.56 FEET;
THENCE SOUTH 70°23'26" EAST, 97.42 FEET;
THENCE NORTH 89°07'37" EAST, 103.02 FEET;
THENCE SOUTH 75°51'20" EAST, 148.58 FEET;
THENCE SOUTH 78°14'13" EAST, 157.43 FEET;
THENCE SOUTH 74°18'33" EAST, 104.34 FEET;
THENCE NORTH 63°01'48" EAST, 153.81 FEET;
THENCE SOUTH 68°54'19" EAST, 116.32 FEET;
THENCE SOUTH 85°06'24" EAST, 127.65 FEET;

THENCE SOUTH 80°10'53" EAST, 111.57 FEET;
THENCE SOUTH 83°31'21" EAST, 140.91 FEET;
THENCE SOUTH 75°45'30" EAST, 125.40 FEET;
THENCE SOUTH 77°57'29" EAST, 164.44 FEET;
THENCE SOUTH 83°59'15" EAST, 169.31 FEET;
THENCE SOUTH 75°53'29" EAST, 253.98 FEET;
THENCE SOUTH 79°45'27" EAST, 157.48 FEET;
THENCE SOUTH 74°49'55" EAST, 126.98 FEET;
THENCE SOUTH 72°25'31" EAST, 138.38 FEET;
THENCE SOUTH 61°31'41" EAST, 55.35 FEET;
THENCE SOUTH 55°10'27" EAST, 314.18 FEET;
THENCE SOUTH 29°33'26" EAST, 94.23 FEET;
THENCE SOUTH 36°03'27" EAST, 93.83 FEET;
THENCE SOUTH 31°16'02" EAST, 82.56 FEET;
THENCE SOUTH 31°19'16" EAST, 110.34 FEET;
THENCE SOUTH 26°25'50" EAST, 119.34 FEET;
THENCE SOUTH 30°58'43" EAST, 159.29 FEET;
THENCE SOUTH 23°31'40" EAST, 74.72 FEET;
THENCE SOUTH 23°58'13" EAST, 107.25 FEET;
THENCE SOUTH 40°37'19" EAST, 144.39 FEET;
THENCE SOUTH 31°45'00" EAST, 127.55 FEET;
THENCE SOUTH 34°34'58" EAST, 184.20 FEET;
THENCE SOUTH 49°50'19" EAST, 78.77 FEET;
THENCE SOUTH 23°31'12" EAST, 91.68 FEET;
THENCE SOUTH 19°57'32" EAST, 90.49 FEET;
THENCE SOUTH 44°44'38" EAST, 114.57 FEET;
THENCE SOUTH 41°25'49" EAST, 181.78 FEET;
THENCE SOUTH 58°31'02" EAST, 133.94 FEET;
THENCE SOUTH 60°44'50" EAST, 114.64 FEET;
THENCE SOUTH 61°04'38" EAST, 128.57 FEET;
THENCE SOUTH 59°36'02" EAST, 104.04 FEET;
THENCE SOUTH 64°38'22" EAST, 119.90 FEET;
THENCE SOUTH 22°24'10" EAST, 14.71 FEET;
THENCE SOUTH 73°00'27" EAST, 133.20 FEET;
THENCE SOUTH 69°02'00" EAST, 101.69 FEET;
THENCE SOUTH 73°30'35" EAST, 113.77 FEET;
THENCE SOUTH 69°40'45" EAST, 88.85 FEET;
THENCE SOUTH 62°00'47" EAST, 111.76 FEET;
THENCE SOUTH 66°48'46" EAST, 66.04 FEET;
THENCE SOUTH 48°29'12" EAST, 47.31 FEET;
THENCE SOUTH 66°43'55" EAST, 73.06 FEET;
THENCE SOUTH 66°21'47" EAST, 105.58 FEET;
THENCE SOUTH 75°27'39" EAST, 104.66 FEET;
THENCE SOUTH 65°51'52" EAST, 108.50 FEET;
THENCE SOUTH 61°33'26" EAST, 74.21 FEET;
THENCE SOUTH 79°00'30" EAST, 263.47 FEET;
THENCE SOUTH 71°58'26" EAST, 105.86 FEET;
THENCE SOUTH 63°15'46" EAST, 119.41 FEET;
THENCE SOUTH 63°14'28" EAST, 113.60 FEET;
THENCE SOUTH 61°44'34" EAST, 95.56 FEET;
THENCE SOUTH 52°45'12" EAST, 77.18 FEET;
THENCE SOUTH 39°24'54" EAST, 68.91 FEET;
THENCE SOUTH 11°20'39" EAST, 71.86 FEET;
THENCE SOUTH 23°55'47" EAST, 188.62 FEET;
THENCE SOUTH 20°58'08" EAST, 76.12 FEET;
THENCE SOUTH 27°34'57" EAST, 92.61 FEET;

THENCE SOUTH 31°02'32" EAST, 106.73 FEET;
THENCE SOUTH 16°10'57" EAST, 123.86 FEET;
THENCE SOUTH 02°48'42" EAST, 9.82 FEET;
THENCE SOUTH 01°31'27" WEST, 116.76 FEET;
THENCE SOUTH 10°16'14" WEST, 117.10 FEET;
THENCE SOUTH 07°25'59" WEST, 120.94 FEET;
THENCE SOUTH 23°48'28" WEST, 110.89 FEET;
THENCE SOUTH 29°28'12" WEST, 86.70 FEET;
THENCE SOUTH 27°49'21" WEST, 90.37 FEET;
THENCE SOUTH 36°07'42" WEST, 79.98 FEET;
THENCE SOUTH 58°17'25" WEST, 154.28 FEET;
THENCE SOUTH 56°34'39" WEST, 87.36 FEET;
THENCE SOUTH 46°58'28" WEST, 174.77 FEET;
THENCE SOUTH 37°12'56" WEST, 205.06 FEET;
THENCE SOUTH 25°54'58" WEST, 126.21 FEET;
THENCE SOUTH 18°38'11" WEST, 106.49 FEET;
THENCE SOUTH 27°44'12" WEST, 105.77 FEET;
THENCE SOUTH 22°48'50" WEST, 111.04 FEET;
THENCE SOUTH 21°51'20" WEST, 154.55 FEET TO THE SOUTHERN LINE OF PARCEL 2 OF SAID PARTITION PLAT 1990-23;
THENCE ALONG SAID SOUTHERN LINE SOUTH 89°51'07" WEST, 420.46 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM THE FOLLOWING:

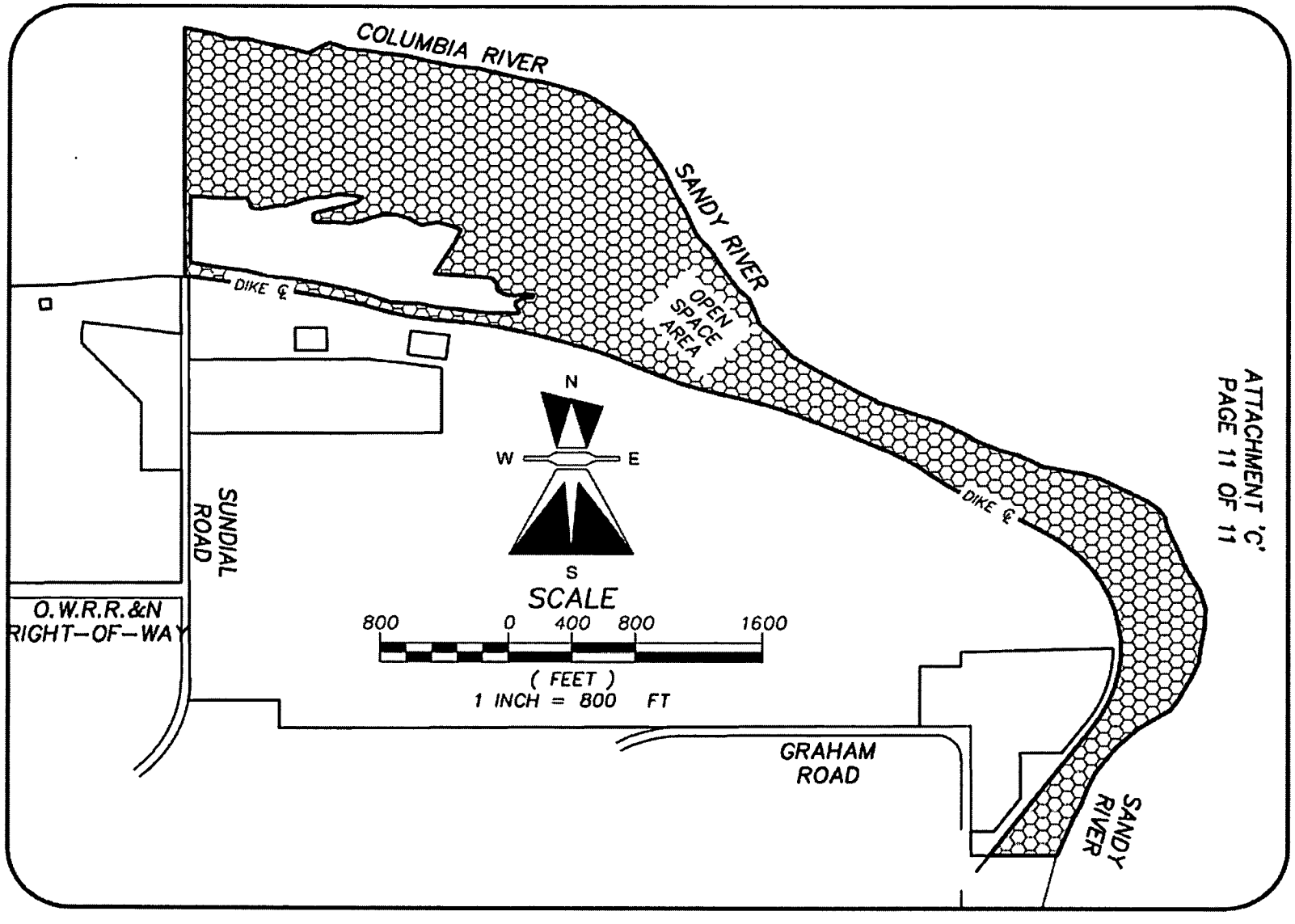
COMMENCING AT THE SOUTH QUARTER CORNER, SECTION 23, TOWNSHIP 1 NORTH, RANGE 3 WEST, W.M.;
THENCE ALONG THE SOUTH LINE OF SAID SECTION NORTH 89°42'47" EAST, 2,648.06 FEET TO THE SOUTHEAST CORNER, SECTION 23, TOWNSHIP 1 NORTH, RANGE 3 WEST, W.M.;
THENCE NORTH 37°27'28" WEST, 6,106.88 FEET TO THE **TRUE POINT OF BEGINNING**;
THENCE NORTH 00°02'50" WEST, 441.39 FEET;
THENCE SOUTH 86°29'21" EAST, 237.39 FEET;
THENCE NORTH 89°05'06" EAST, 119.81 FEET;
THENCE SOUTH 31°16'58" EAST, 37.47 FEET;
THENCE SOUTH 11°08'11" EAST, 29.08 FEET;
THENCE SOUTH 69°09'28" EAST, 23.94 FEET;
THENCE SOUTH 89°51'12" EAST, 44.29 FEET;
THENCE NORTH 79°32'50" EAST, 67.22 FEET;
THENCE NORTH 78°00'08" EAST, 48.23 FEET;
THENCE SOUTH 86°26'53" EAST, 39.98 FEET;
THENCE NORTH 67°54'22" EAST, 44.50 FEET;
THENCE NORTH 73°59'31" EAST, 41.69 FEET;
THENCE NORTH 70°30'23" EAST, 51.95 FEET;
THENCE NORTH 79°42'53" EAST, 65.94 FEET;
THENCE SOUTH 88°26'38" EAST, 48.25 FEET;
THENCE NORTH 76°31'42" EAST, 93.78 FEET;
THENCE SOUTH 82°41'46" EAST, 147.47 FEET;
THENCE SOUTH 37°03'48" WEST, 25.80 FEET;
THENCE SOUTH 56°27'24" WEST, 24.57 FEET;
THENCE SOUTH 68°32'44" WEST, 26.16 FEET;
THENCE SOUTH 74°57'59" WEST, 249.76 FEET;
THENCE SOUTH 26°49'10" WEST, 15.38 FEET;
THENCE SOUTH 08°39'47" EAST, 21.00 FEET;
THENCE SOUTH 14°21'08" EAST, 21.20 FEET;
THENCE SOUTH 87°54'12" EAST, 125.77 FEET;
THENCE SOUTH 86°53'36" EAST, 101.49 FEET;

THENCE NORTH 76°32'32" EAST, 77.62 FEET;
THENCE NORTH 70°23'54" EAST, 63.17 FEET;
THENCE NORTH 76°15'07" EAST, 79.78 FEET;
THENCE SOUTH 88°38'27" EAST, 77.56 FEET;
THENCE SOUTH 72°22'22" EAST, 79.29 FEET;
THENCE SOUTH 60°08'10" EAST, 86.77 FEET;
THENCE NORTH 80°02'18" EAST, 104.16 FEET;
THENCE SOUTH 75°08'54" EAST, 92.30 FEET;
THENCE SOUTH 67°19'17" EAST, 53.09 FEET;
THENCE SOUTH 55°13'05" EAST, 9.40 FEET;
THENCE SOUTH 24°40'24" WEST, 94.34 FEET;
THENCE SOUTH 31°22'57" WEST, 242.00 FEET;
THENCE SOUTH 86°24'59" EAST, 266.68 FEET;
THENCE SOUTH 81°40'20" EAST, 75.60 FEET;
THENCE SOUTH 89°56'53" EAST, 10.40 FEET;
THENCE SOUTH 70°27'20" EAST, 7.06 FEET;
THENCE SOUTH 51°24'35" EAST, 13.28 FEET;
THENCE SOUTH 39°28'25" EAST, 12.66 FEET;
THENCE SOUTH 41°51'00" EAST, 13.31 FEET;
THENCE SOUTH 17°14'48" EAST, 15.43 FEET;
THENCE SOUTH 03°19'40" EAST, 14.86 FEET;
THENCE SOUTH 07°46'48" EAST, 16.33 FEET;
THENCE SOUTH 32°44'29" EAST, 8.86 FEET;
THENCE SOUTH 52°28'15" EAST, 13.49 FEET;
THENCE SOUTH 62°41'42" EAST, 33.29 FEET;
THENCE SOUTH 72°56'20" EAST, 29.97 FEET;
THENCE SOUTH 84°56'38" EAST, 36.88 FEET;
THENCE NORTH 84°18'36" EAST, 29.77 FEET;
THENCE NORTH 74°10'51" EAST, 30.82 FEET;
THENCE NORTH 89°49'24" EAST, 16.72 FEET;
THENCE SOUTH 79°36'59" EAST, 36.44 FEET;
THENCE SOUTH 47°52'25" EAST, 6.30 FEET;
THENCE SOUTH 03°01'07" EAST, 7.63 FEET;
THENCE SOUTH 62°04'39" WEST, 6.98 FEET;
THENCE SOUTH 84°09'57" WEST, 37.09 FEET;
THENCE SOUTH 76°59'53" WEST, 28.00 FEET;
THENCE SOUTH 66°24'47" WEST, 27.61 FEET;
THENCE SOUTH 51°24'34" WEST, 17.76 FEET;
THENCE SOUTH 27°08'09" WEST, 10.05 FEET;
THENCE SOUTH 03°32'28" WEST, 9.40 FEET;
THENCE SOUTH 32°36'58" EAST, 35.88 FEET;
THENCE SOUTH 18°41'12" EAST, 17.10 FEET;
THENCE SOUTH 12°54'38" WEST, 5.71 FEET;
THENCE SOUTH 68°40'04" WEST, 9.59 FEET;
THENCE SOUTH 77°03'42" WEST, 12.54 FEET;
THENCE NORTH 87°34'24" WEST, 16.33 FEET;
THENCE NORTH 86°13'49" WEST, 51.01 FEET;
THENCE SOUTH 88°27'43" WEST, 69.02 FEET;
THENCE NORTH 88°36'08" WEST, 50.85 FEET;
THENCE NORTH 80°59'55" WEST, 56.96 FEET;
THENCE NORTH 82°52'26" WEST, 138.31 FEET;
THENCE NORTH 83°29'42" WEST, 120.99 FEET;
THENCE NORTH 77°52'00" WEST, 99.17 FEET;
THENCE NORTH 85°20'04" WEST, 60.25 FEET;
THENCE NORTH 88°12'01" WEST, 120.40 FEET;
THENCE NORTH 70°08'53" WEST, 145.02 FEET;

THENCE NORTH 73°25'29" WEST, 146.60 FEET;
THENCE NORTH 78°00'07" WEST, 144.65 FEET;
THENCE NORTH 79°03'35" WEST, 181.88 FEET;
THENCE NORTH 85°04'45" WEST, 172.72 FEET;
THENCE NORTH 73°56'44" WEST, 139.28 FEET;
THENCE NORTH 82°43'03" WEST, 190.06 FEET;
THENCE NORTH 80°09'05" WEST, 174.10 FEET TO THE POINT OF BEGINNING.

SAID TRACT CONTAINS 149.05 ACRES MORE OR LESS.

BEARINGS BASED ON SURVEY NO 60128, SURVEY RECORDS OF MULTNOMAH COUNTY, OREGON.


COLUMBIA RIVER
SANDY RIVER
DIKE ℄
OPEN SPACE AREA
DIKE ℄
N
W
E
S
SUNDIAL ROAD
O.W.R.R.&N RIGHT-OF-WAY
SCALE
800 0 400 800 1600
(FEET)
1 INCH = 800 FT
GRAHAM ROAD
SANDY RIVER
ATTACHMENT 'C'
PAGE 11 OF 11

ATTACHMENT D
Legal Description
of the Industrial/Open Space Area
(4 pages)

A TRACT OF LAND LOCATED IN SECTIONS 23 AND 24, TOWNSHIP 1 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN MULTNOMAH COUNTY, OREGON. SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTH QUARTER CORNER, SECTION 23, TOWNSHIP 1 NORTH, RANGE 3 WEST, W.M.;

THENCE ALONG THE SOUTH LINE OF SAID SECTION NORTH 89°42'47" EAST, 2,648.06 FEET TO THE SOUTHEAST CORNER, SECTION 23, TOWNSHIP 1 NORTH, RANGE 3 WEST, W.M.;

THENCE NORTH 52°45'26" EAST, 1,503.77 FEET TO THE SOUTHEAST CORNER PARCEL II, PARTITION PLAT 1990-23;

THENCE ALONG THE SOUTHERN LINE OF SAID PARCEL 2 NORTH 89°51'07" EAST, 113.64 FEET MORE OR LESS TO THE CENTERLINE OF THE FLOOD CONTROL DIKE AND **TRUE POINT OF BEGINNING**;

THENCE ALONG THE CENTERLINE OF SAID FLOOD CONTROL DIKE THE FOLLOWING COURSES;

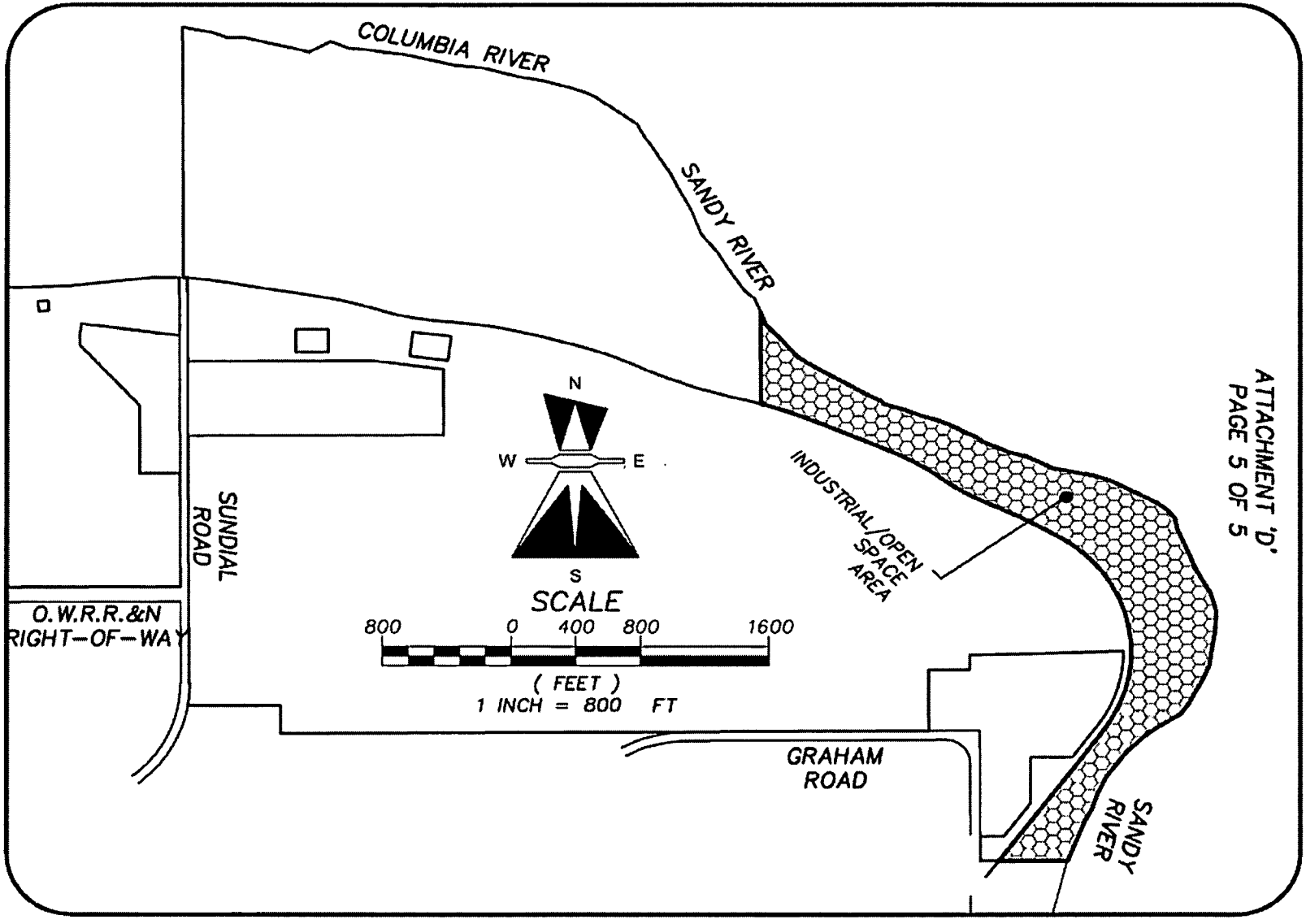
NORTH 37°00'41" EAST, 77.57 FEET;
THENCE NORTH 36°44'16" EAST, 208.64 FEET;
THENCE NORTH 36°45'54" EAST, 205.76 FEET;
THENCE NORTH 36°50'16" EAST, 205.97 FEET;
THENCE NORTH 36°45'03" EAST, 209.13 FEET;
THENCE NORTH 36°51'00" EAST, 118.36 FEET;
THENCE NORTH 33°59'25" EAST, 121.15 FEET;
THENCE NORTH 28°05'21" EAST, 103.17 FEET;
THENCE NORTH 22°03'27" EAST, 110.30 FEET;
THENCE NORTH 14°06'51" EAST, 103.31 FEET;
THENCE NORTH 07°23'04" EAST, 105.94 FEET;
THENCE NORTH 00°10'41" WEST, 108.37 FEET;
THENCE NORTH 07°34'16" WEST, 102.77 FEET;
THENCE NORTH 13°10'47" WEST, 110.42 FEET;
THENCE NORTH 20°51'56" WEST, 106.41 FEET;
THENCE NORTH 27°58'14" WEST, 104.41 FEET;
THENCE NORTH 34°26'07" WEST, 101.18 FEET;
THENCE NORTH 41°25'13" WEST, 106.02 FEET;
THENCE NORTH 49°08'21" WEST, 104.98 FEET;
THENCE NORTH 55°06'42" WEST, 101.67 FEET;
THENCE NORTH 59°54'59" WEST, 107.24 FEET;
THENCE NORTH 61°31'48" WEST, 107.65 FEET;
THENCE NORTH 62°08'26" WEST, 105.61 FEET;
THENCE NORTH 64°42'16" WEST, 105.65 FEET;
THENCE NORTH 65°49'21" WEST, 105.05 FEET;
THENCE NORTH 63°38'38" WEST, 107.34 FEET;
THENCE NORTH 60°00'04" WEST, 108.21 FEET;
THENCE NORTH 56°07'35" WEST, 102.12 FEET;
THENCE NORTH 55°43'13" WEST, 114.10 FEET;
THENCE NORTH 59°49'03" WEST, 103.26 FEET;
THENCE NORTH 63°46'26" WEST, 108.16 FEET;
THENCE NORTH 66°13'44" WEST, 108.27 FEET;
THENCE NORTH 66°53'46" WEST, 110.49 FEET;
THENCE NORTH 67°08'22" WEST, 182.34 FEET;
THENCE NORTH 67°24'07" WEST, 102.92 FEET;

THENCE NORTH 67°59'36" WEST, 107.72 FEET;
THENCE NORTH 69°32'39" WEST, 114.67 FEET;
THENCE NORTH 72°05'45" WEST, 109.54 FEET;
THENCE NORTH 74°43'02" WEST, 65.14 FEET MORE OR LESS TO THE EASTERN LINE OF THAT PROPERTY CONVEYED TO REYNOLDS ALUMINUM COMPANY RECORDED JULY 10, 1950 ON BOOK 1, PAGE 1417, MULTNOMAH COUNTY DEED RECORDS;
THENCE ALONG SAID EASTERN LINE NORTH 00°16'42" WEST, 601.06 FEET MORE OR LESS TO THE TO THE MEAN HIGH WATER LINE OF THE LEFT BANK OF THE SANDY RIVER;
THENCE SOUTH 19°57'32" EAST, 80.91 FEET;
THENCE SOUTH 44°44'38" EAST, 114.57 FEET;
THENCE SOUTH 41°25'49" EAST, 181.78 FEET;
THENCE SOUTH 58°31'02" EAST, 133.94 FEET;
THENCE SOUTH 60°44'50" EAST, 114.64 FEET;
THENCE SOUTH 61°04'38" EAST, 128.57 FEET;
THENCE SOUTH 59°36'02" EAST, 104.04 FEET;
THENCE SOUTH 64°38'22" EAST, 119.90 FEET;
THENCE SOUTH 22°24'10" EAST, 14.71 FEET;
THENCE SOUTH 73°00'27" EAST, 133.20 FEET;
THENCE SOUTH 69°02'00" EAST, 101.69 FEET;
THENCE SOUTH 73°30'35" EAST, 113.77 FEET;
THENCE SOUTH 69°40'45" EAST, 88.85 FEET;
THENCE SOUTH 62°00'47" EAST, 111.76 FEET;
THENCE SOUTH 66°48'46" EAST, 66.04 FEET;
THENCE SOUTH 48°29'12" EAST, 47.31 FEET;
THENCE SOUTH 66°43'55" EAST, 73.06 FEET;
THENCE SOUTH 66°21'47" EAST, 105.58 FEET;
THENCE SOUTH 75°27'39" EAST, 104.66 FEET;
THENCE SOUTH 65°51'52" EAST, 108.50 FEET;
THENCE SOUTH 61°33'26" EAST, 74.21 FEET;
THENCE SOUTH 79°00'30" EAST, 263.47 FEET;
THENCE SOUTH 71°58'26" EAST, 105.86 FEET;
THENCE SOUTH 63°15'46" EAST, 119.41 FEET;
THENCE SOUTH 63°14'28" EAST, 113.60 FEET;
THENCE SOUTH 61°44'34" EAST, 95.56 FEET;
THENCE SOUTH 52°45'12" EAST, 77.18 FEET;
THENCE SOUTH 39°24'54" EAST, 68.91 FEET;
THENCE SOUTH 11°20'39" EAST, 71.86 FEET;
THENCE SOUTH 23°55'47" EAST, 188.62 FEET;
THENCE SOUTH 20°58'08" EAST, 76.12 FEET;
THENCE SOUTH 27°34'57" EAST, 92.61 FEET;
THENCE SOUTH 31°02'32" EAST, 106.73 FEET;
THENCE SOUTH 16°10'57" EAST, 123.86 FEET;
THENCE SOUTH 02°48'42" EAST, 9.82 FEET;
THENCE SOUTH 01°31'27" WEST, 116.76 FEET;
THENCE SOUTH 10°16'14" WEST, 117.10 FEET;
THENCE SOUTH 07°25'59" WEST, 120.94 FEET;
THENCE SOUTH 23°48'28" WEST, 110.89 FEET;
THENCE SOUTH 29°28'12" WEST, 86.70 FEET;
THENCE SOUTH 27°49'21" WEST, 90.37 FEET;
THENCE SOUTH 36°07'42" WEST, 79.98 FEET;
THENCE SOUTH 58°17'25" WEST, 154.28 FEET;
THENCE SOUTH 56°34'39" WEST, 87.36 FEET;
THENCE SOUTH 46°58'28" WEST, 174.77 FEET;
THENCE SOUTH 37°12'56" WEST, 205.06 FEET;
THENCE SOUTH 25°54'58" WEST, 126.21 FEET;
THENCE SOUTH 18°38'11" WEST, 106.49 FEET;

THENCE SOUTH 27°44'12" WEST, 105.77 FEET;
THENCE SOUTH 22°48'50" WEST, 111.04 FEET;
THENCE SOUTH 21°51'20" WEST, 154.55 FEET TO THE SOUTHERN LINE OF PARCEL 2 OF SAID PARTITION PLAT 1990-23;
THENCE ALONG SAID SOUTHERN LINE SOUTH 89°51'07" WEST, 420.46 FEET TO THE POINT OF BEGINNING.

SAID TRACT CONTAINS 42.63 ACRES MORE OR LESS.

BEARINGS BASED ON SURVEY NO 60128, SURVEY RECORDS OF MULTNOMAH COUNTY, OREGON.


COLUMBIA RIVER
SANDY RIVER
ATTACHMENT 'D'
PAGE 5 OF 5
N
W
E
S
SUNDIAL ROAD
INDUSTRIAL/OPEN SPACE AREA
O.W.R.R.&N RIGHT-OF-WAY
SCALE
800 0 400 800 1600
(FEET)
1 INCH = 800 FT
GRAHAM ROAD
SANDY RIVER

ATTACHMENT E
Superfund Remedy Features
(4 pages)

Troutdale Site

March 5, 2007

Reynolds Metals Company
Assessor No. 1N3E23 00100
Assessor No. 1N3E14 00100

Parcel 1 – CAPPED AREA – North Landfill Area

A parcel of land in that tract of real property in the North ½ of Section 23, Township 1 North, Range 3 East and the South ½ of Section 14, Township 1 North, Range 3 East of the Willamette Meridian, Multnomah County, Oregon, being described as follows:

Commencing at the Northwest Corner of said Section 23,
thence N 89°44'30" E, 3602.12 feet to the
POINT OF BEGINNING;
thence N 66°49'16" W, 17.00 feet;
thence N 51°05'24" W, 109.00 feet;
thence S 75°57'02" W, 425.00 feet;
thence N 60°44'18" W, 18.00 feet;
thence N 28°46'10" W, 18.00 feet;
thence N 13°46'20" W, 22.00 feet;
thence N 34°44'06" E, 56.00 feet;
thence N 50°29'36" E, 60.00 feet;
thence N 65°27'11" E, 60.00 feet;
thence N 73°15'42" E, 330.00 feet;
thence N 59°19'03" E, 75.00 feet;
thence S 34°40'46" E, 20.00 feet;
thence S 31°29'46" W, 21.00 feet;
thence S 22°19'01" E, 100.00 feet;
thence S 23°10'36" W, 25.00 feet;
thence S 71°23'42" W, 30.00 feet;
thence S 15°59'31" E, 105.00 feet;
to the POINT OF BEGINNING;
said point also being N 18°28'27" W, 5558.73 feet
from the Southeast corner of said Section 23.

The area of land to which this description applies contains 73688.66 Sq. feet (1.692 acres), more or less.

Parcel 2 – CAPPED AREA – Company Lake, Southeast Area

A parcel of land in that tract of real property in the North ½ of Section 23, Township 1 North, Range 3 East of the Willamette Meridian, Multnomah County, Oregon, being described as follows:

Commencing at the Northwest Corner of said Section 23,
thence S 77°52'37" E, 3510.31 feet to the
POINT OF BEGINNING;
thence N 81°05'40" W, 100.00 feet;
thence N 85°32'48" W, 130.00 feet;
thence N 76°34'08" W, 80.00 feet;
thence N 12°37'41" E, 15.00 feet;
thence S 76°34'08" E, 80.00 feet;
thence S 89°37'28" E, 140.00 feet;
thence S 78°47'33" E, 91.00 feet;
thence S 10°50'38" W, 22.00 feet;
to the POINT OF BEGINNING;
said point also being N 23°08'37" W, 4914.30 feet
from the Southeast corner of said Section 23.

The area of land to which this description applies contains 6121.25 Sq. feet (0.141 acres), more or less.

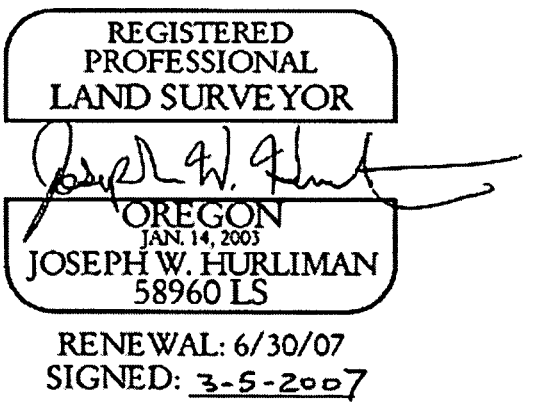
Parcel 3 – CAPPED AREA – Company Lake, West Area

A parcel of land in that tract of real property in the North ½ of Section 23, Township 1 North, Range 3 East of the Willamette Meridian, Multnomah County, Oregon, being described as follows:

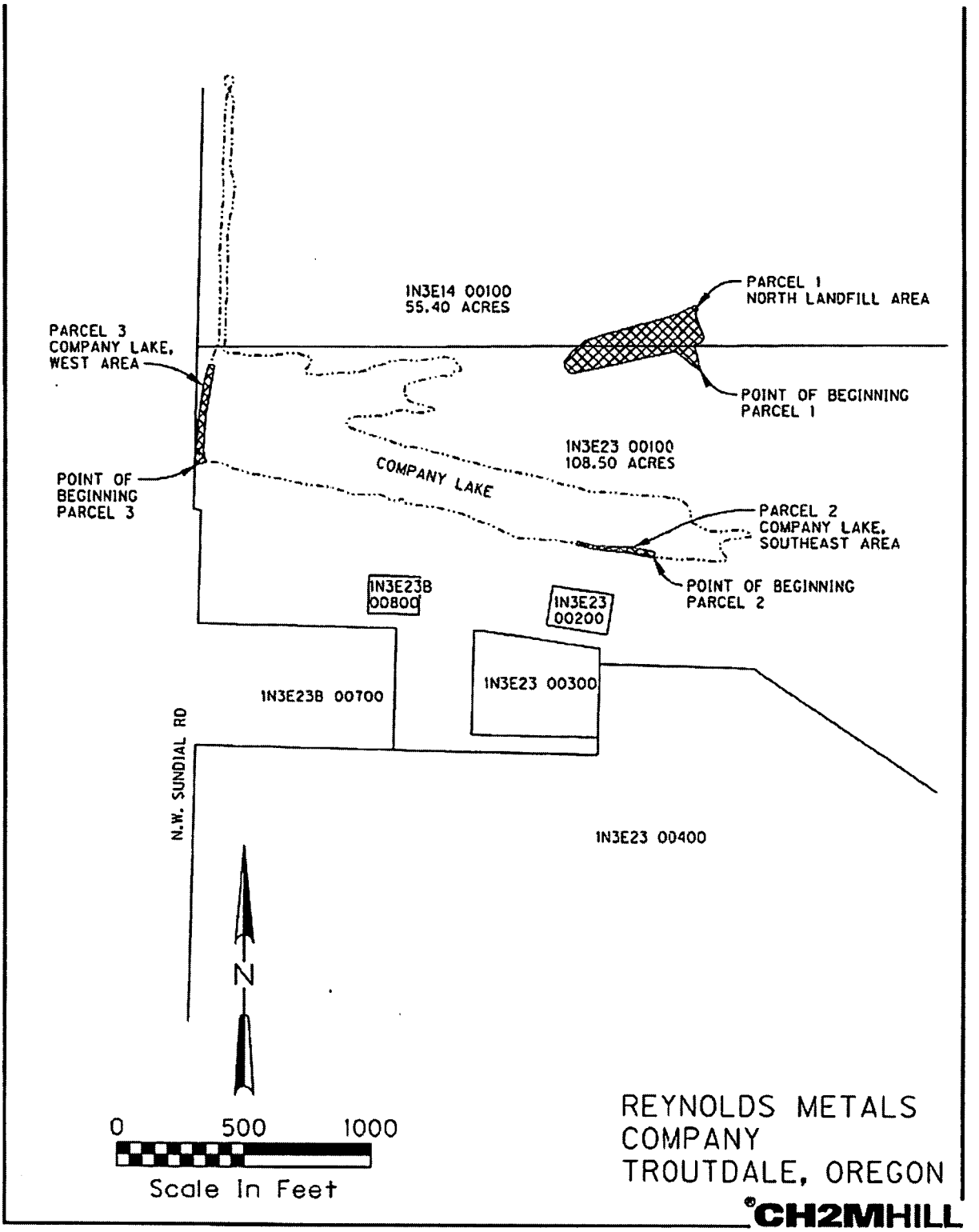
Commencing at the Northwest Corner of said Section 23,
thence S 75°35'16" E, 1678.96 feet to the
POINT OF BEGINNING;
thence N 19°16'42" W, 25.00 feet;
thence N 0°48'38" E, 100.00 feet;
thence N 6°30'32" E, 190.00 feet;
thence N 13°26'53" E, 90.00 feet;
thence S 77°51'05" E, 22.00 feet;
thence S 8°13'52" W, 200.00 feet;
thence S 2°33'46" W, 140.00 feet;
thence S 13°26'29" E, 50.00 feet;
thence S 75°22'39" W, 35.00 feet;
to the POINT OF BEGINNING;
said point also being N 37°41'08" W, 6113.57 feet
from the Southeast corner of said Section 23.

The area of land to which this description applies contains 11660.77 Sq. feet (0.268 acres), more or less.

The basis of bearings for these descriptions is Record of Survey No. 60128, Multnomah County Survey Records.



RENEWAL: 6/30/07
SIGNED: 3-5-2007



ATTACHMENT F
Pre-existing Easements
(5 pages)

An easement created by instrument, including terms and provisions thereof;

Dated:	August 4, 1932
Recorded:	November 2, 1933
Book:	229
Page:	403
In Favor Of:	Game Commission of the State of Oregon
For:	Right-of-way
Affects:	Exact location not disclosed

An easement created by instrument, including terms and provisions thereof;

Dated:	June 19, 1940
Recorded:	August 6, 1940
Book:	561
Page:	301
In Favor Of:	Sandy Drainage District
For:	Levees, embankments, revetments, canals and any incidental works appurtenant thereto for flood purposes
Affects:	Tax Lot 300 in Section 24

Said interest assigned by instrument;

Recorded:	October 18, 1940
Book:	572
Page:	326
To:	United States of America

(continued on next page)

An easement created by instrument, including terms and provisions thereof;

Dated:	June 19, 1940
Recorded:	August 6, 1940
Book:	561
Page:	304
In Favor Of:	Sandy Drainage District
For:	Levees, embankments, revetments, canals and any incidental works appurtenant thereto for flood purposes
Affects:	Tax Lot 300 in Section 24

Said interest assigned by instrument;

Recorded:	October 18, 1940
Book:	572
Page:	326
To:	United States of America

An easement created by instrument, including terms and provisions thereof;

Dated:	June 19, 1940
Recorded:	August 6, 1940
Book:	561
Page:	320
In Favor Of:	Sandy Drainage District
For:	Levees, embankments, revetments, canals and any incidental works appurtenant thereto for flood purposes
Affects:	Tax Lot 100 in Section 14 and Tax Lot 100 in Section 23

Said interest assigned by instrument;

Recorded:	October 18, 1940
Book:	572
Page:	326
To:	United States of America

An easement created by instrument, including terms and provisions thereof;

Dated:	June 26, 1940
Recorded:	August 6, 1940
Book:	561
Page:	323
In Favor Of:	Sandy Drainage District
For:	Levees, embankments, revetments, canals and any incidental works appurtenant thereto for flood purposes
Affects:	Tax Lot 100 in Section 14 and Tax Lot 100 in Section 23

Said interest assigned by instrument;

Recorded:	October 18, 1940
Book:	572
Page:	326
To:	United States of America

An easement created by instrument, including terms and provisions thereof;
Dated: July 9, 1940

Recorded: August 16, 1940
Book: 562
Page: 588
In Favor Of: Sandy Drainage District
For: Levees, embankments, revetments, canals and any incidental works appurtenant thereto for flood purposes
Affects: Tax Lots 1602 in Section 24

Said interest assigned by instrument;
Recorded: October 18, 1940
Book: 572
Page: 326
To: United States of America

An easement created by instrument, including terms and provisions thereof;
Dated: October 2, 1940
Recorded: October 18, 1940
Book: 572
Page: 280
In Favor Of: Sandy Drainage District
For: Levees, embankments, revetments, canals and any incidental works appurtenant thereto for flood purposes
Affects: Tax Lot 1602 in Section 24

Said interest assigned by instrument;
Recorded: October 18, 1940
Book: 572
Page: 326
To: United States of America

An easement created by instrument, including terms and provisions thereof;
Dated: June 19, 1945
Recorded: July 17, 1945
Book: 950
Page: 168
In Favor Of: Portland General Electric Company
For: Right-of-way
Affects: Easterly portion of Tax Lot 1602 in Section 24

An easement created by instrument, including terms and provisions thereof;
Dated: September 30, 1952
Recorded: October 2, 1952
Book: 1561
Page: 434
In Favor Of: United States of America
For: Transmission line
Affects: 250 foot wide strip through the Northeasterly portion

An easement created by Judgement of the Declaration of Taking and Order of Immediate Possession, including terms and provisions thereof;
Recorded: May 27, 1959
Book: 1957
Page: 161
In Favor Of: United States of America
For: Electric power transmission structures
Affects: 325 foot wide strip through Tax Lot 100 in Section 23

Right-of-Way Agreement, including the terms and provisions thereof;

Dated:	March 8, 1960
Recorded:	March 24, 1960
Book:	2001
Page:	40
By and Between:	James H. and Daisy E. Graham and El Paso Natural Gas Company
For:	Pipe line and appurtenances
Affects:	A strip of land 50 feet in width across Tax Lot 300 in Section 24

The terms and provisions of said Agreement were modified by instrument;

Dated:	June 25, 1992
Recorded:	August 3, 1992
Book:	2572
Page:	492

An easement created by Judgment in Condemnation on Declaration of Taking No. 2, including terms and provisions thereof;

Filed:	November 30, 1960
Suit No.:	Civil No. 146-59, United States District Court for the District of Oregon
In Favor Of:	United States of America
For:	Electric power transmission structures, appurtenances and the right to clear "danger trees"

An easement created by instrument, including terms and provisions thereof;

Dated:	March 15, 1962
Recorded:	June 4, 1962
Book:	2119
Page:	29
In Favor Of:	United States of America
For:	Right-of-way
Affects:	14 foot wide strips through Tax Lot 100 in Section 23

An easement created by instrument, including terms and provisions thereof;

Dated:	August 3, 1970
Recorded:	August 7, 1970
Book:	746
Page:	284
In Favor Of:	United States of America
For:	Transmission line
Affects:	Tax Lot 300 in Section 24

An easement created by instrument, including terms and provisions thereof;

Dated:	October 1, 1970
Recorded:	April 18, 1972
Book:	851
Page:	554
In Favor Of:	United States of America
For:	Transmission line
Affects:	Tax Lot 100 in Section 23

State of Oregon Well Ownership Information Form, including the terms and provisions thereof;
Recorded: December 18, 2000
Recorder's Fee No.: 2000-171685
(Affects Tax Lot 100 in Section 14, Tax Lot 100 in Section 23 and additional property)

Covenants, conditions, restrictions and easements, but omitting covenants or restrictions, if any, based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, or use of the real property by any home or facility that is licensed by or under the authority of the State of Oregon under ORS Chapter 443, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law, as contained in Unilateral Administrative Order for Remedial Design and Remedial Action U.S. EPA Docket No. CERCLA 10-2003-0115
Recorded: August 15, 2003
Recorder's Fee No.: 2003-191152

State of Oregon Well Ownership Information Form, including the terms and provisions thereof;
Recorded: August 15, 2003
Recorder's Fee No.: 2003-191153
(Affects Tax Lot 100 in Section 23 and additional property)

The above document was re-recorded by instrument,
Recorded: February 20, 2004
Recorder's Fee No.: 2004-026306

State of Oregon Well Ownership Information Form, including the terms and provisions thereof;
Recorded: November 19, 2004
Recorder's Fee No.: 2004-210177
(Affects Tax Lot 100 in Section 23 and additional property)

Covenants, conditions, restrictions and easements, but omitting covenants or restrictions, if any, based on race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, or use of the real property by any home or facility that is licensed by or under the authority of the State of Oregon under ORS Chapter 443, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law, as contained in Unilateral Administrative Order for Remedial Design and Remedial Action U.S. EPA Docket No. CERCLA 10-2005-0217
Recorded: September 20, 2005
Recorder's Fee No.: 2005-179932

Appendix A-2a

Oregon
Kate Brown, Governor

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 986-5200
FAX (503) 378-4844
www.oregon.gov/dsl

January 21, 2020

MB600/40094
PORT OF PORTLAND
ATTN CARRIE BUTLER
7200 NE AIRPORT WAY
PORTLAND OR 97218

Re: DSL Removal-Fill Permit 40094-RF, East Lake & Company Lake Mitigation Sites
T. 1N, R. 3E, Section 23, Tax Lot 104, and T. 1N, R. 3E, Section 14, Tax Lot 101
Troutdale, Multnomah County
Final Year Monitoring Report Approval

Dear Ms. Butler:

We have reviewed the final monitoring report for this project. The Department of State Lands wishes to commend you for achieving of the goals and success criteria for the mitigation site. The mitigation area is 7.96 acres of wetland creation and enhancement, which includes advanced mitigation credits. Please see Tables 1-3, Figures 1-3, and the recorded Conservation Easement figures in Attachment A.

Please be advised the wetlands designated as compensatory mitigation areas under this permit are subject to protection under the State of Oregon's Removal-Fill Law. Permits are required for any alterations to wetland mitigation areas. Under OAR 141-085-0690(4), mitigation ratios may be doubled for any allowable impacts to the mitigation site.

In conclusion, this letter constitutes formal notice from the Oregon Department of State Lands that you are in compliance with your Removal-Fill Permit conditions. You are released from further obligations under this permit. Thank you for your good stewardship and concern for Oregon's environment.

Sincerely,

Christopher Castelli
Digitally signed by Christopher Castelli
Date: 2020.01.21 16:05:33 -08'00'

Christopher Castelli
Northern Operations Manager
Aquatic Resource Management
Oregon Department of State Lands

MB:eeb

Enclosure

cc: Carrie Butler, Port of Portland (Carrie.Butler@portofportland.com)
Sarah Wilson, Port of Portland (Sarah.Wilson@portofportland.com)
City of Troutdale, Local Planning Dept.
Brad Johnson, USACE (Brad.A.Johnson2@usace.army.mil)

ATTACHMENT A

Table 1. Company Lake and East Lake Sites Mitigation Credit Table - REVISED JAN 2020

Mitigation Site	Acres Creation	Acres Enhancement	Total Acres	Credits Creation	Credits Enhancement	Total Credits
Company Lake	2.08	1.28	**3.36**	1.39	0.43	**1.81**
East Lake	4.16	0.44	**4.60**	2.77	0.15	**2.92**
Total[1]	6.24	1.72	**7.96**	4.16	0.57	**4.73**

[1]Wetland acres/credits are based on 2018 Wetland Delineation by SWCA

Table 2. Project Impacts Table

Impact Site	Acres of Impact (Credits Needed)	
TRIP Phase 1	0.28	(DSL 40094, NWP 2007-889)
PDX Logistics Center[1]	0.98	(No DSL Permit Required, NWP 2011-432)
Total	1.26	

1. Mitigation for this project was regulated through the U.S. Army Corps of Engineers only (not through the Oregon Department of State Lands).

Table 3. Project Credit/Debit Table - REVISED JAN 2020

Wetland Name	PEM Acres-C	PSS Acres-C	PEM Acres-E	PSS Acres-E	Total Acres-C	Total Acres-E	Credits-C	Credits-E	Total Credits[1]
East Lake Wetland	1.61	2.55	0.43	0.01	4.16	0.44	2.77	0.15	2.92
Company Lake Wetland	0.59	1.49	0.79	0.49	2.08	1.28	1.39	0.43	1.81
Subtotal	2.20	4.04	1.22	0.50	**6.24**	**1.72**	4.16	0.57	**4.73**
Impacts	**DSL**	**USACE**			**Mitigation Acres Used**		**Mitigation Credits Used**		
Project	**Permit**	**Permit**			**Acres-C**	**Acres-E**	**Credits-C**	**Credits-E**	**Credit Balance**
TRIP Phase I[2]	40094-RF	NWP-2007-889			0.42	0.00	0.28	0.00	0.28
PDX Logistics Center[3]	N/A	NWP-2011-432			1.47	0.00	0.98	0.00	0.98
Subtotal					1.89	0.00	1.26	0.00	**1.26**
Advance Credit Balance[4]:					4.35	1.72	2.90	0.57	**3.47**

E = enhancement, C = creation

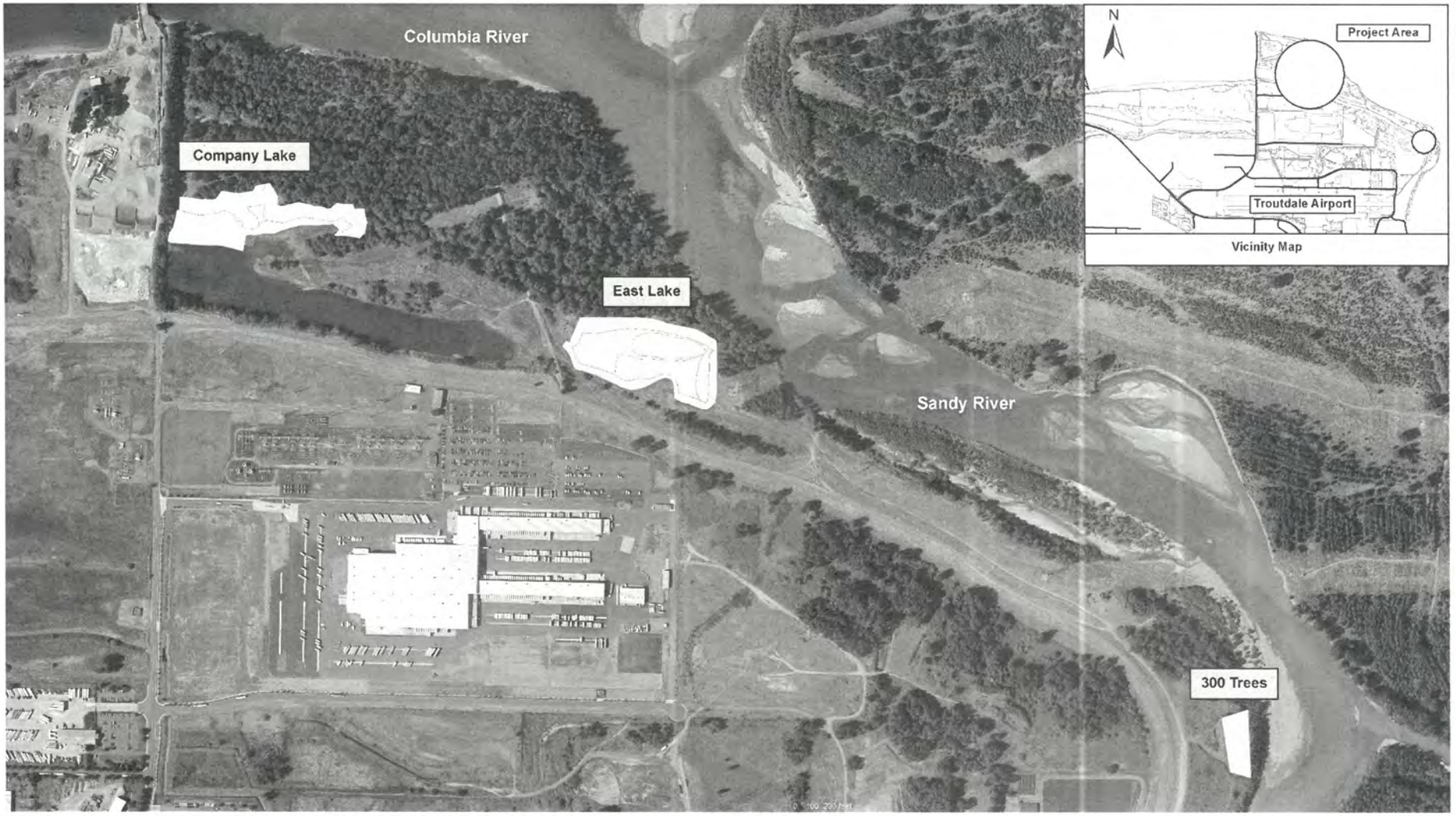
1. Wetlands acres/credits are based on 2018 Wetland Delineation by SWCA.

2. As per modified permit NWP-2007-889, Port shall compensate the loss of 0.28 acre of PEM wetlands with 0.42 acre of creation at the TRIP Phase I mitigation site at East Lake (1.5:1).

3. As per permit NWP-2011-432, Port shall compensate the loss of .98 acre of PEM wetlands by debiting 1.47 acres from the TRIP Advanced Mitigation acreage (1.5:1).

4. Remaining advance mitigation acreage potentially available must be verified by USACE and DSL at the time a project is proposed/application submitted.

5. East Lake acreage is primarily PSS wheras Company Lake is primarily PFO/PSS



Port of Portland
Prepared by the Port Environmental Department | 2015
2014 Aerial

N

TRIP Phase I - Wetland Mitigation
Mitigation Monitoring - Figure 1
Aerial and Vicinity Map

Feet
0 425 850 1,700

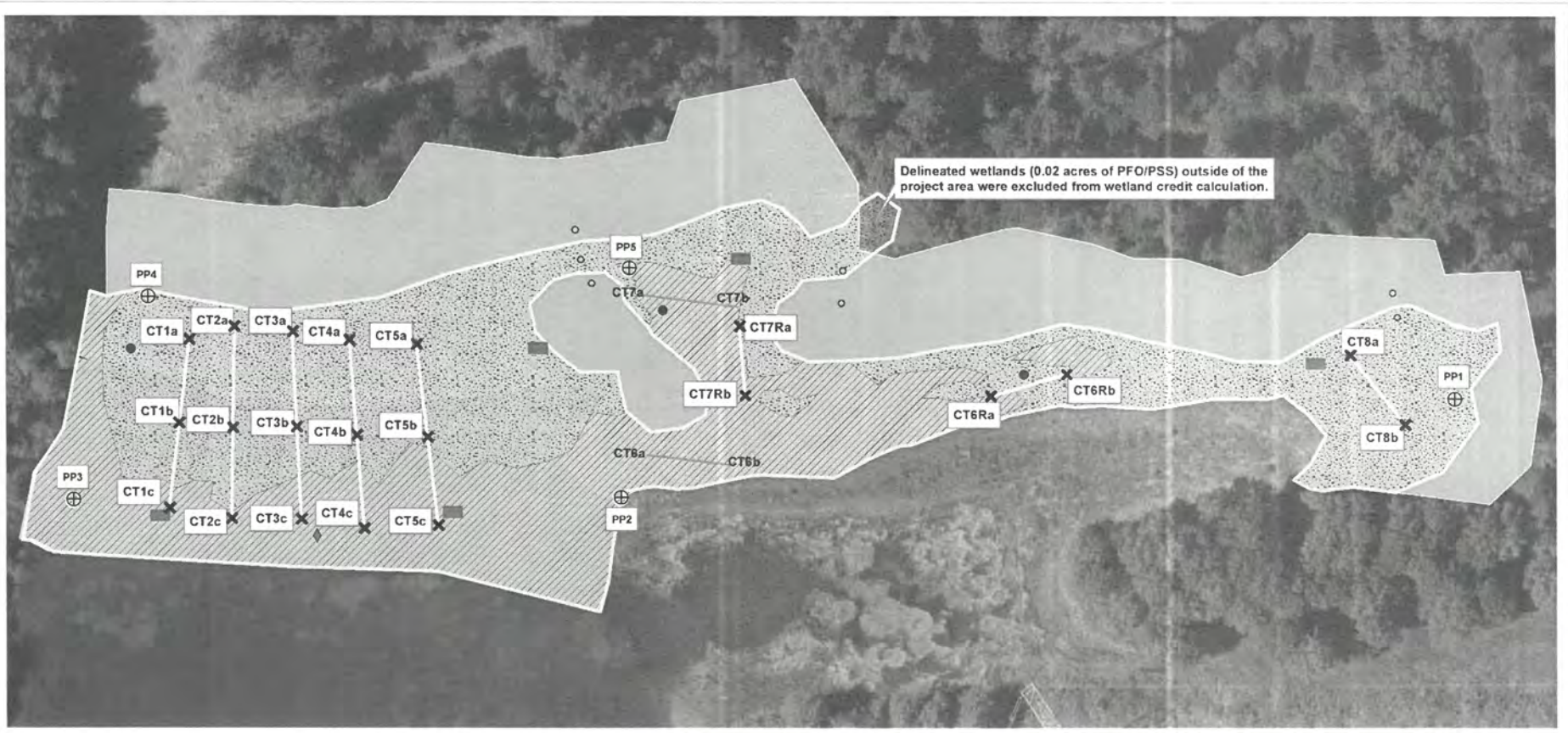
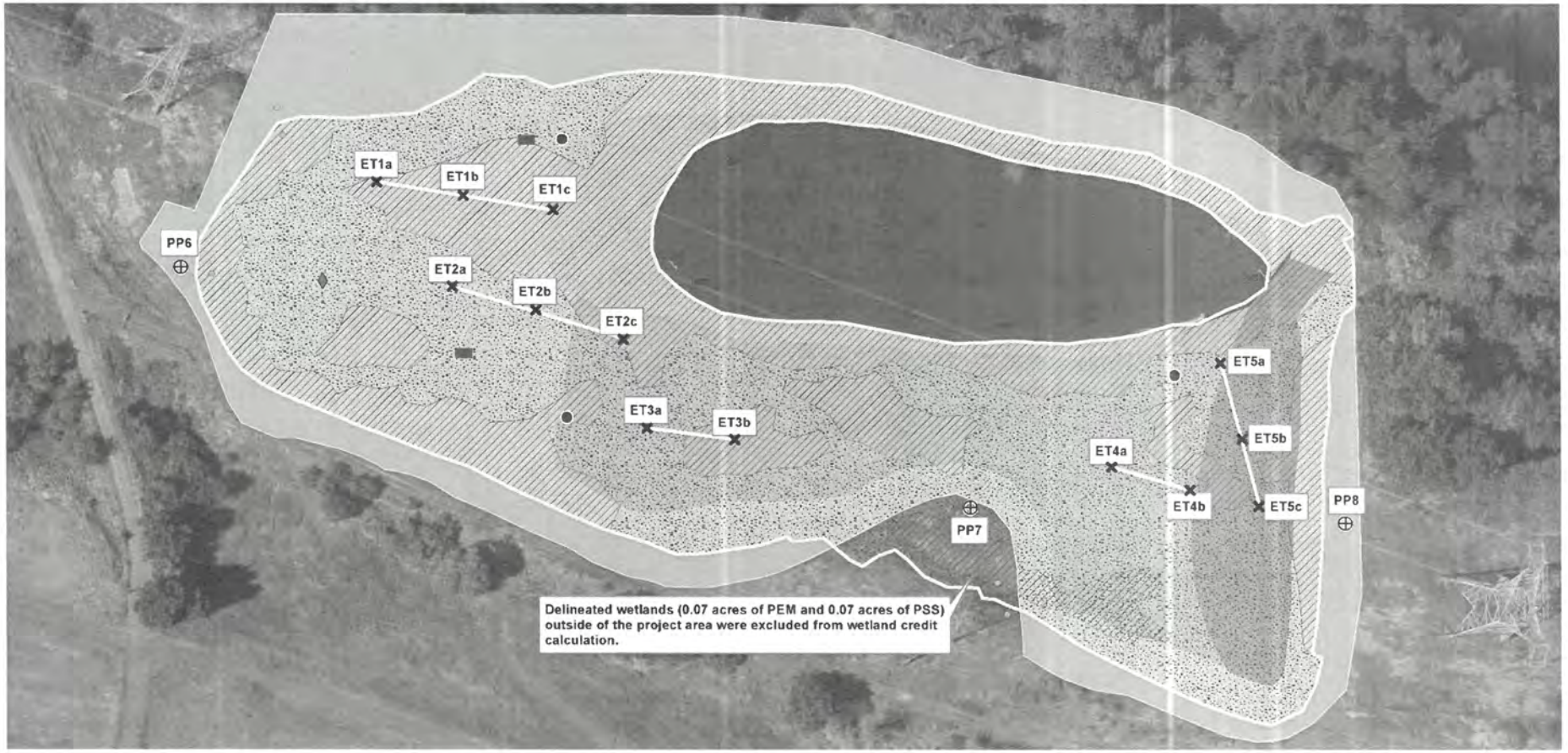


Figure 2 - Company Lake
Troutdale Reynolds Industrial Park
TRIP Phase I - Wetland Mitigation Site



- Staff Gauge
- Wildlife Snag
- Woody Debris
- Photo Point
- Monitoring Plots
- Monitoring Transect
- Project Area
- Delineation Sample Plot

- 2018 Wetland Delineation (4.74 acres)
- PEM within Project Area (2.04 acres)
- PSS within Project Area (2.56 acres)
- Wetland Enhancement (0.44 acres)
- Remaining Wetland Creation (2.27 acres)
- Wetland Creation for PDX Logistics Center Impacts (1.47 acres)
- Wetland Creation for TRIP Phase 1 Impacts (0.42 acres)
- Upland Community (1.50 acres)

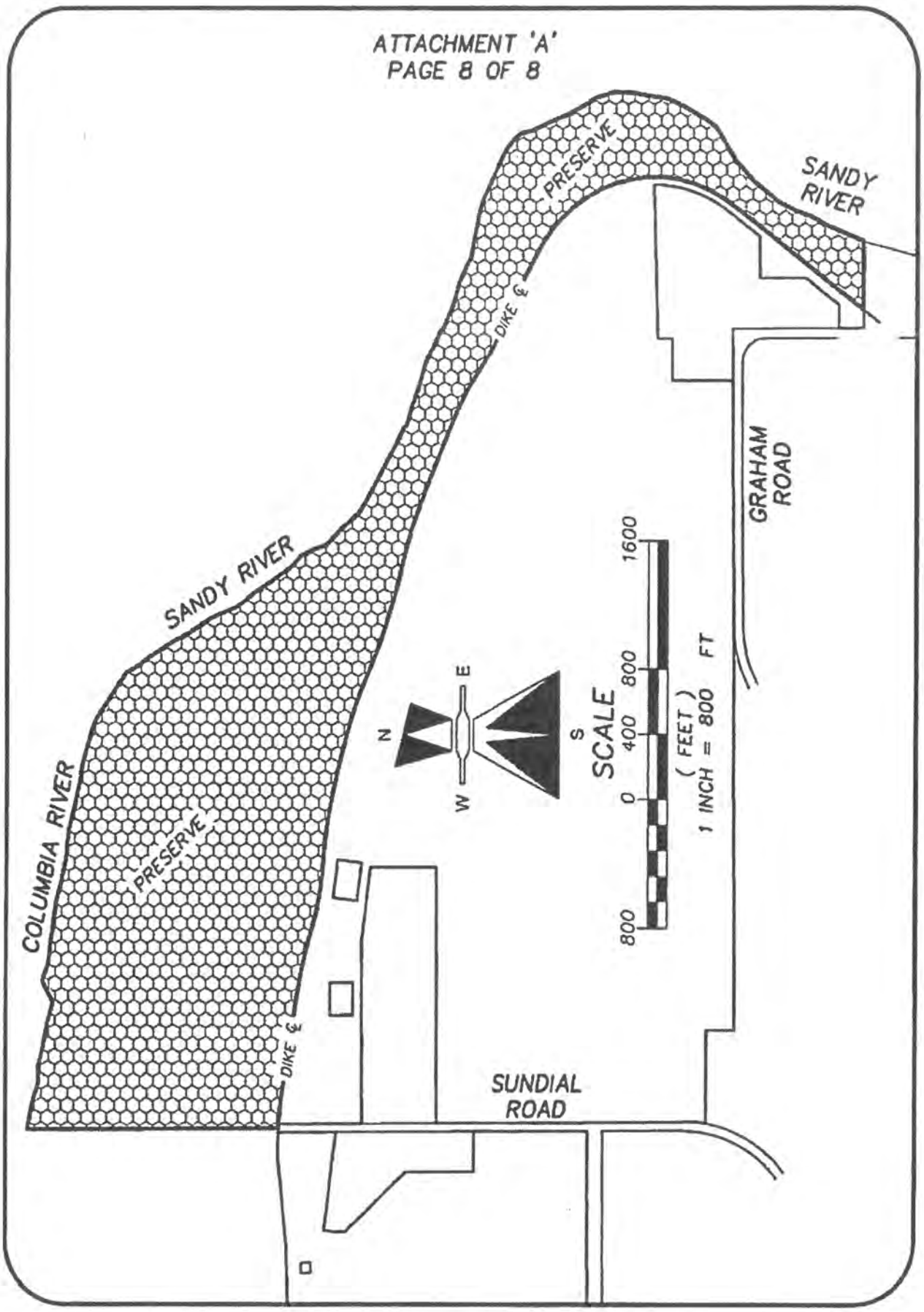
Port of Portland

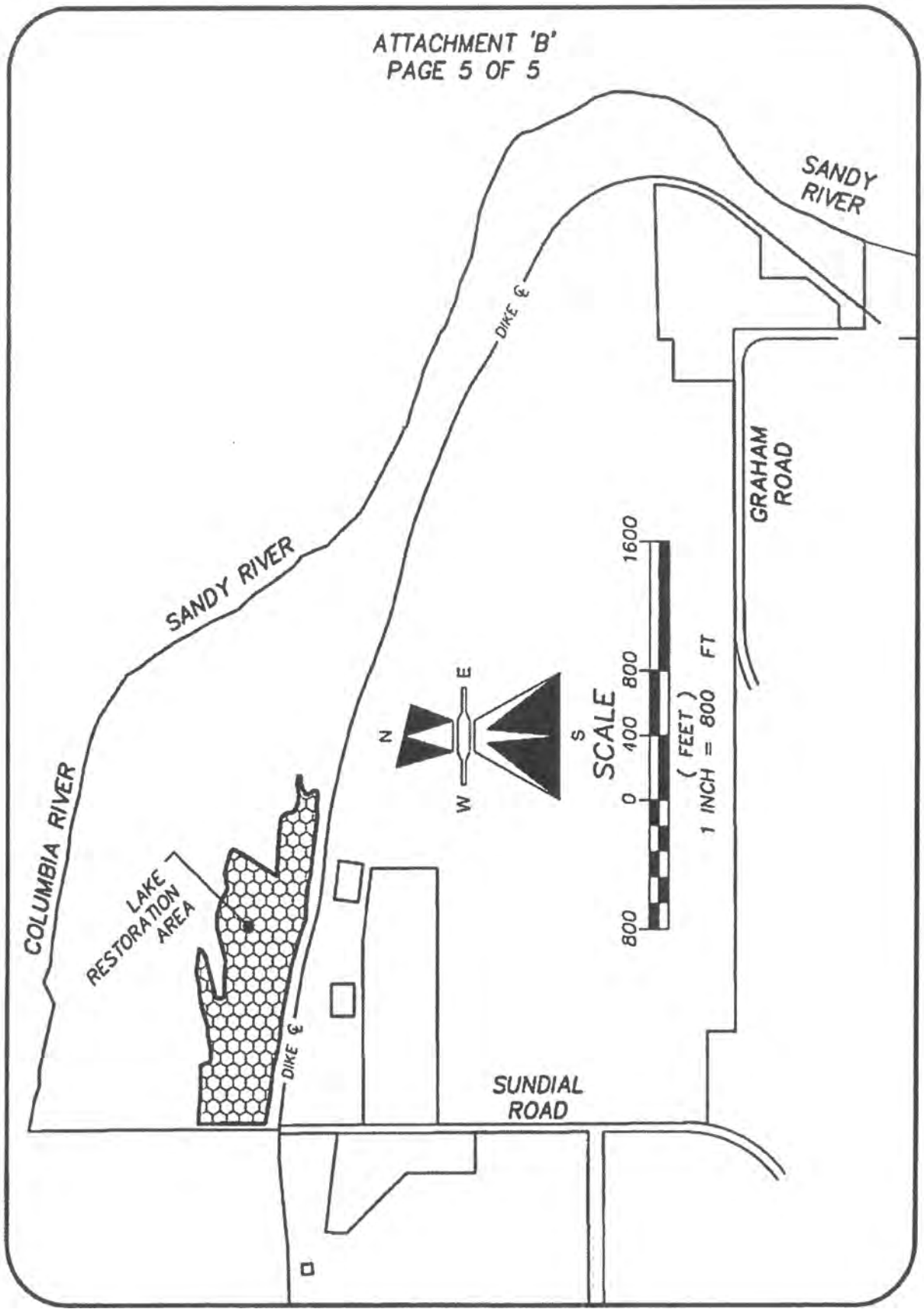
Prepared by the Port Environmental Department | 2019
2016 aerial

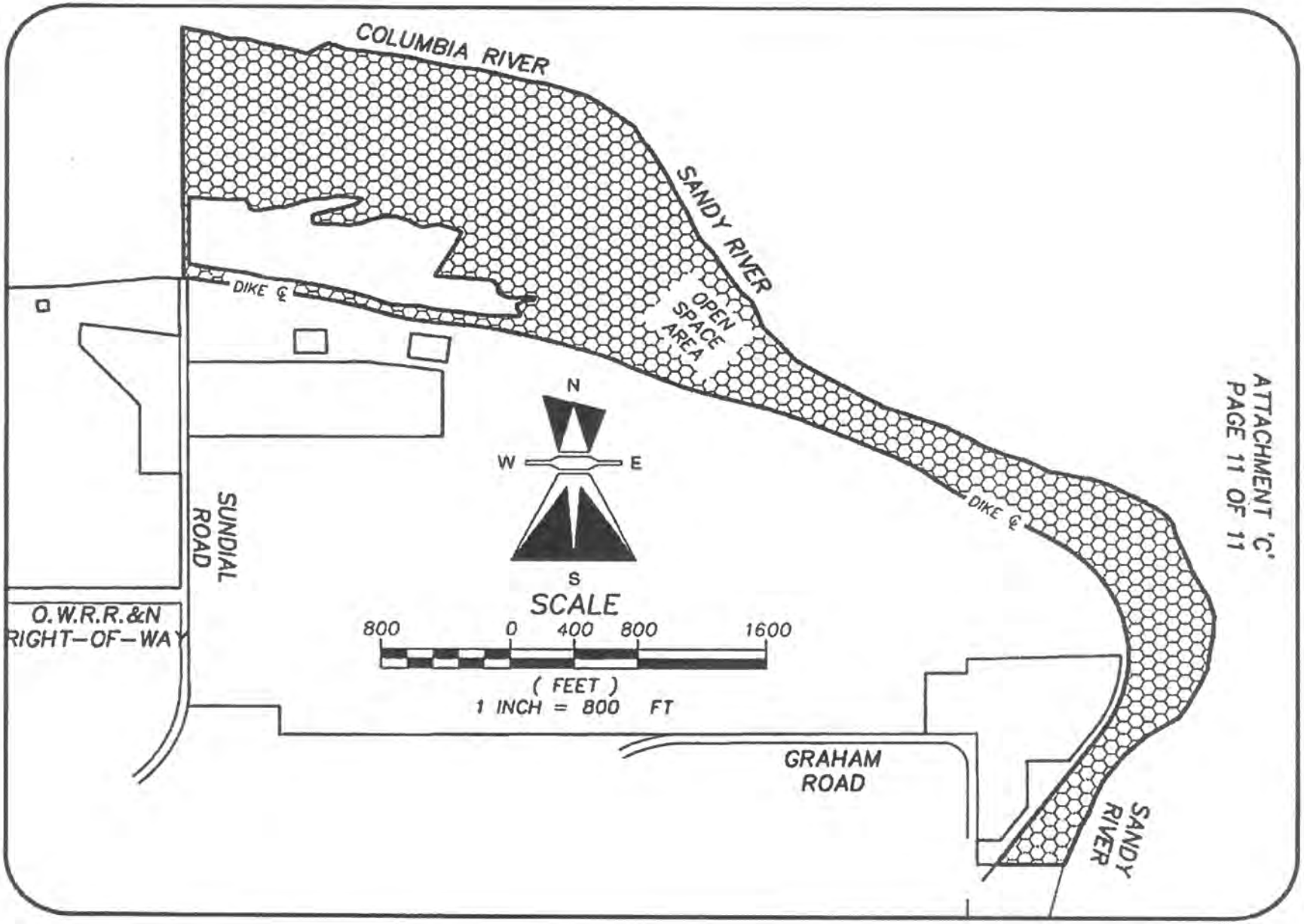
N

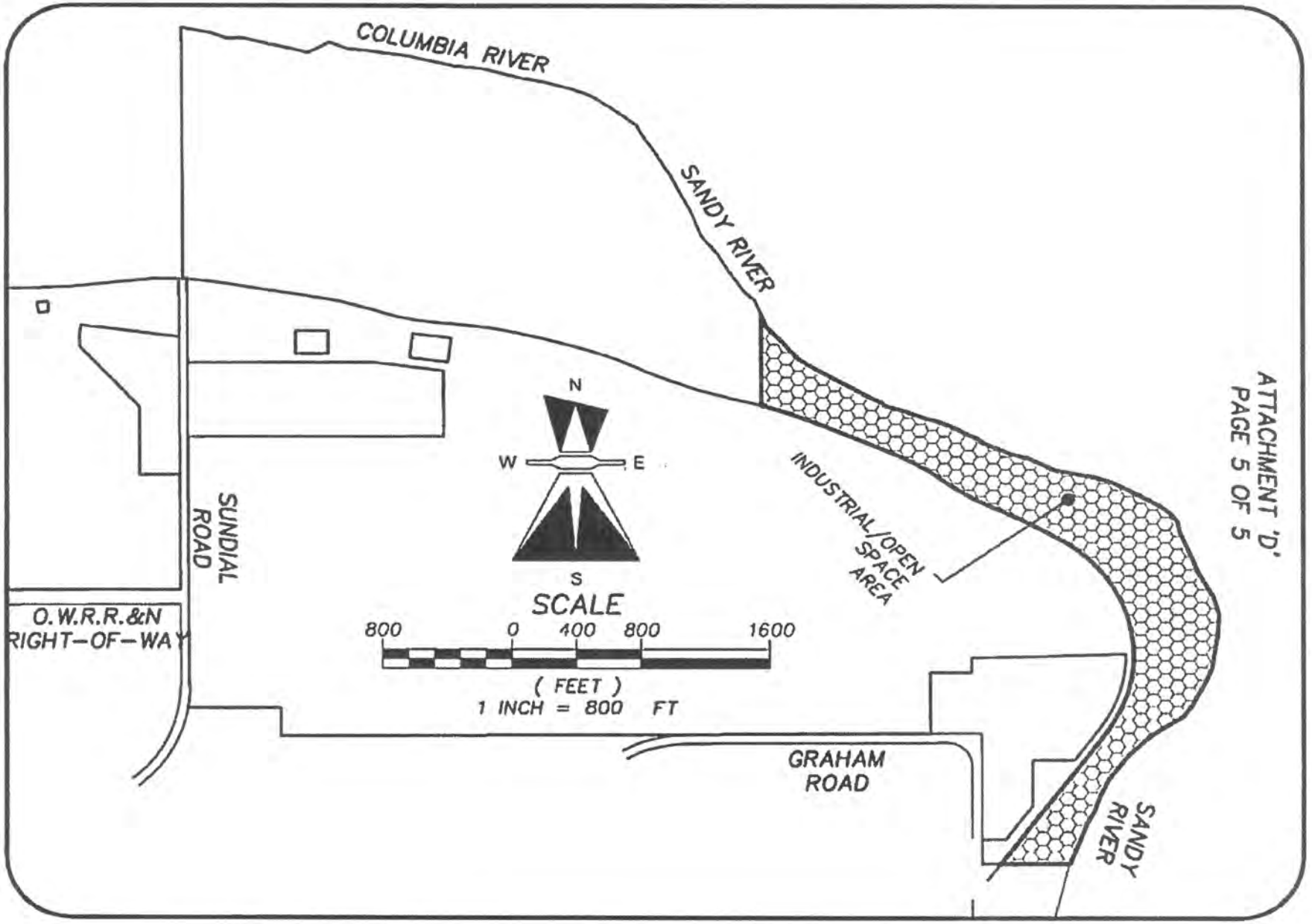
0 25 50 100 150 200 Feet

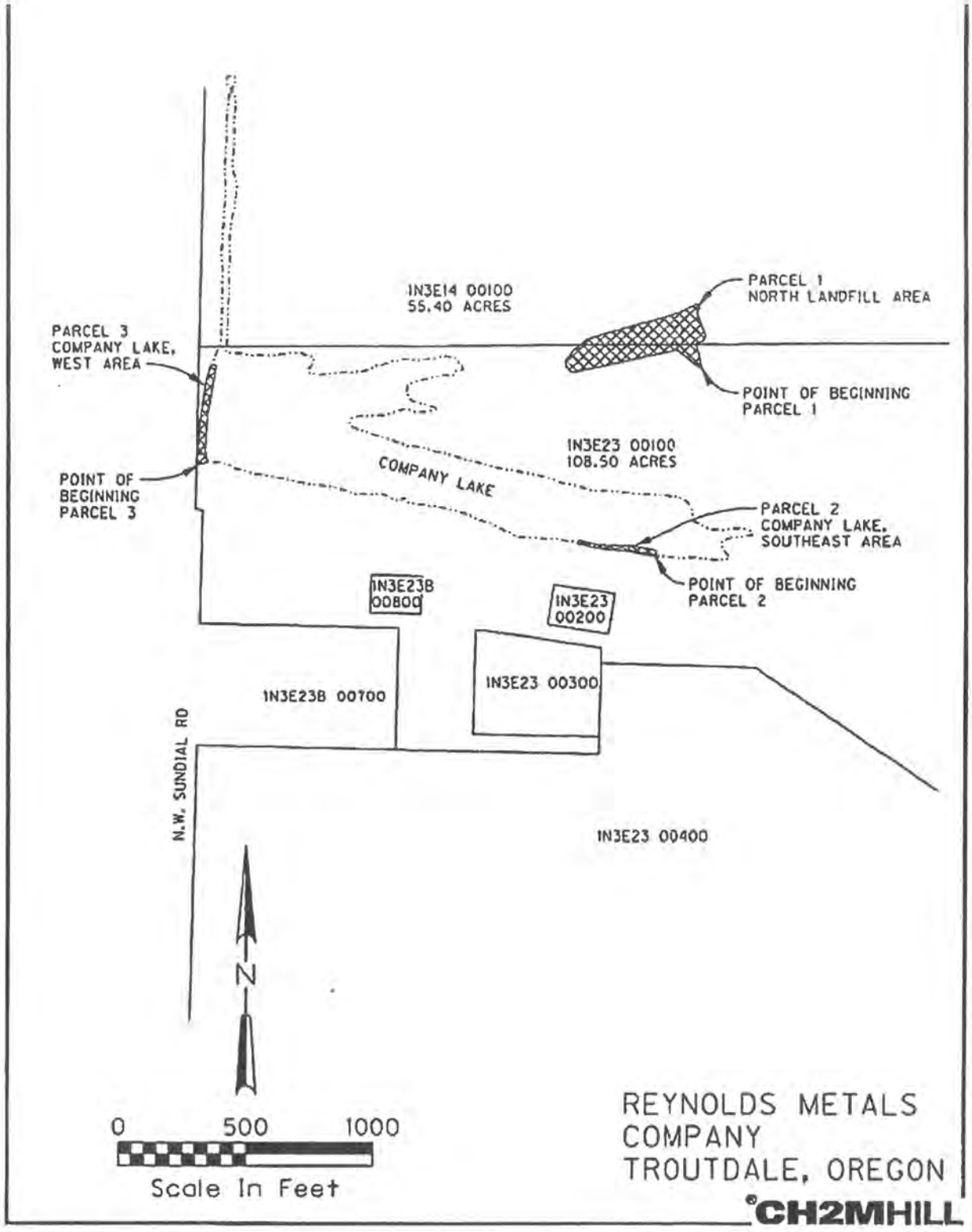
Figure 3 - East Lake
Troutdale Reynolds Industrial Park
TRIP Phase I - Wetland Mitigation Site


PRESERVE
SANDY RIVER
DIKE ℄
GRAHAM ROAD
SANDY RIVER
COLUMBIA RIVER
PRESERVE
DIKE ℄
SUNDIAL ROAD
N
E
S
W
SCALE
1600
800
400
0
800
(FEET)
1 INCH = 800 FT


SANDY RIVER
DIKE ℄
GRAHAM ROAD
SANDY RIVER
COLUMBIA RIVER
N
E
S
W
SCALE
1600
800
400
0
800
(FEET)
1 INCH = 800 FT
LAKE RESTORATION AREA
DIKE ℄
SUNDIAL ROAD


COLUMBIA RIVER
SANDY RIVER
DIKE ℄
OPEN SPACE AREA
N
W
E
S
DIKE ℄
SUNDIAL ROAD
O.W.R.R.&N RIGHT-OF-WAY
SCALE
800 0 400 800 1600
(FEET)
1 INCH = 800 FT
GRAHAM ROAD
SANDY RIVER
ATTACHMENT 'C'
PAGE 11 OF 11


COLUMBIA RIVER
SANDY RIVER
N
W
E
S
SCALE
800 0 400 800 1600
(FEET)
1 INCH = 800 FT
SUNDIAL ROAD
O.W.R.R.&N
RIGHT-OF-WAY
INDUSTRIAL/OPEN SPACE AREA
GRAHAM ROAD
SANDY RIVER
ATTACHMENT 'D'
PAGE 5 OF 5


1N3E14 00100
55.40 ACRES
PARCEL 1
NORTH LANDFILL AREA
PARCEL 3
COMPANY LAKE,
WEST AREA
POINT OF BEGINNING
PARCEL 1
1N3E23 00100
108.50 ACRES
COMPANY LAKE
POINT OF
BEGINNING
PARCEL 3
PARCEL 2
COMPANY LAKE,
SOUTHEAST AREA
POINT OF BEGINNING
PARCEL 2
1N3E23B
00800
1N3E23
00200
1N3E23 00300
1N3E23B 00700
N.W. SUNDIAL RD
1N3E23 00400
N
0
500
1000
Scale In Feet
REYNOLDS METALS
COMPANY
TROUTDALE, OREGON
CH2MHILL

Appendix A-2b

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, PORTLAND DISTRICT
P.O. BOX 2946
PORTLAND, OR 97208-2946

March 4, 2020

Regulatory Branch
Corps No.: NWP-2007-889 and NWP-2011-432

Ms. Carrie Butler
Port of Portland
Box 3529
Portland, OR 97206
carrie.butler@portofportland.com

Dear Ms. Butler:

The U.S. Army Corps of Engineers (Corps) has reviewed the tenth year monitoring report for the Corps permit number NWP-2007-889, "2019 (Year 10) Wetland Mitigation Monitoring Report; Company Lake, East Lake, and 300 Trees, Troutdale Oregon; October 2019". The Department of Army (DA) permit authorized impacts to 0.28 acre of wetland, and 0.53 acre of waters of other waters of the United States (Salmon Creek and tributary ditches). The Corps required 0.42 acre of wetland creation at the East Lake site and rerouting and enhancing 820 linear feet (0.84 acre) of wetland/waters along Salmon Creek. In addition, the U.S. Army Corps of Engineers (USACE) required enhancement of 0.67 acre of riparian forest near the confluence of the Sandy and Columbia Rivers (300 Trees site). The Company Lake, East Lake, and 300 Trees sites are located in Troutdale, Multnomah County, Oregon.

The following are requirements of the DA permit and compensatory wetland mitigation plan:

For East Lake and Company Lake:

a. There shall be a minimum of 30% cover of native wetland plants by the end of the first year after planting; 60% cover of native wetland plants by the end of the second year after planting; and 80% cover of native wetland plants by the end of the third and fifth years after planting. Native volunteer wetland herbaceous and woody species may be included in the cover % calculation.

East Lake: Performance Standard Met
Company Lake: Performance Standard Met

b. There shall be no more than 20% cover of non-native plant species (designated as 'A' or 'B' by the Oregon Department of Agriculture, including reed canary grass) in

the wetland mitigation site during the monitoring period. There shall be a trend (from year to year) of decreasing cover for the non-native plant species.

East Lake: Performance Standard Met
Company Lake: Performance Standard Met

c. There shall be no more than 5% cover of noxious aquatic weeds.

East Lake: Performance Standard Met
Company Lake: Performance Standard Met

For Company Lake:

d. For monitoring years 2015-2017, stem density of native willow, Oregon ash, and black cottonwood combined shall exceed 1,000 stems per acre, including natural recruits. Beginning in the 2017 monitoring year, the combined stem density shall exceed 500 stems per acre. Trees shall achieve an average growth of 1 foot per year measured between the 2015 and 2019 monitoring years. Alternatively, success may be assumed if 500 trees per acre measure at least 1 inch diameter at 5 inches above ground surface for the 2019 monitoring year.

Company Lake: Performance standard was not met. Shrubs and trees originally planted appeared to have low survival rate at the Company Lake due to prolonged inundation that occurred in 2011 and 2012. As a result, additional shrubs and trees were installed at the Company Lake site in October 2014 through 2017. The density of native willow, Oregon ash (*Fraxinus latifolia*) and black cottonwood (*Populus balsamifera* ssp. *trichocarpa*) combined was 2,213 stems per acre, nearly three times what was present in the previous year. The required minimum of 500 stems per acre at the Company Lake site has been met, though the required diameter of 1 inch at 5 inches above the ground was not met. The density of native woody vegetation including shrubs was 3,579 stems per acre combined for all species including natural recruits, over 1,000 more per acre than the previous year. The site has shown continued improvement since the replanting. It is anticipated that this growth will continue in the future. The site has met the intent of the performance standard.

For 300 Trees Site:

e. A minimum of 0.67 acres of a native riparian forest and/or scrub-shrub mixed community will be planted near the Sandy-Columbia rivers confluence to replace lost riparian functions.

300 Trees: Performance standard met.

f. Plantings will include 300 trees of no less than 3 species with no one species comprising less than 20% of the mix, and propagules planted an average 15 feet O.C. or closer. Establish at least 75 viable tree stems per acre, including desirable recruits.

300 Trees: Approximately 415 live vigorous trees were observed including 14 red alder (*Alnus rubra*), 90 black hawthorn (*Crataegus douglasii*), 70 Oregon ash, 120 black cottonwood, 59 Douglas-fir (*Pseudotsuga menziesii*), 43 Oregon white oak (*Quercus garryana*), and 19 Pacific willow (*Salix lasiandra*). The performance standard establishing 0.67 acre of riparian forest community consisting of no less than three species has been met. The requirement that no one species comprise less than 20% of the mix has not been met. This is due to diversity of the site, the performance standard was included to prevent a monoculture site from establishing. While the site has not met the language of the performance standard it has met the intent of the performance standard. The requirement to establish a minimum of 75 trees/acre has been met.

g. Native herbaceous cover will consist of no less than 5 species with no one species comprising less than 10% of the mix with 40% cover in the first year (2011), 60% cover in the second year, and 80% cover for the remainder of the monitoring period except where inundation precludes the establishment of vegetation.

300 Trees: Performance standard was not met. Native herbaceous cover averaged 70% in site transects. The eastern transect, having sun exposure, had re-seeded well with 114% native herbaceous cover. The western transect, with heavy tree canopy overhead, had 26% native cover and 65% bare thatch. The bare thatch is likely due to the heavy tree canopy overhead increasing shading and leaf litter. The requirement for five species with no one species comprising less than 10% of the mix was not met, the site does have 14 native species established on-site. The intent of the performance standard has been met.

h. There shall be no more than 20% weed cover (i.e., designated 'A' or 'B' by the ODA) at any time during the monitoring period.

300 Trees: The performance standard was met.

The monitoring report indicated that the compensatory wetland mitigation site is meeting the intent of success criteria as explained above and the Corps will be releasing the sites from future monitoring. Additional monitoring reports for the mitigation site are not required. The Corps appreciates the efforts the Port of Portland has made to ensure that the mitigation site is successful.

The Port has submitted a credit/debit ledger documenting the total number of advance mitigation credits available at the East Lake and Company Wetland Mitigation site as of 2019 (Enclosure 1). The Corps has reviewed the ledger to assist the Port with its planning needs; however, this review does not create the presumption that a proposed future wetland impact will be authorized, or that advance credits generated by the proposed advance mitigation site will be considered suitable mitigation for a particular project. Potential remaining advance mitigation acreage must be verified by the Corps at the time that an application is submitted for a proposed wetland impact.

If you have any questions regarding the wetland mitigation monitoring, please contact Mr. Brad Johnson at the letterhead address, by telephone at (503) 808-4383, or by E-mail at: Brad.A.Johnson2@usace.army.mil.

Sincerely,

For: William D. Abadie
Chief, Regulatory Branch

Enclosure

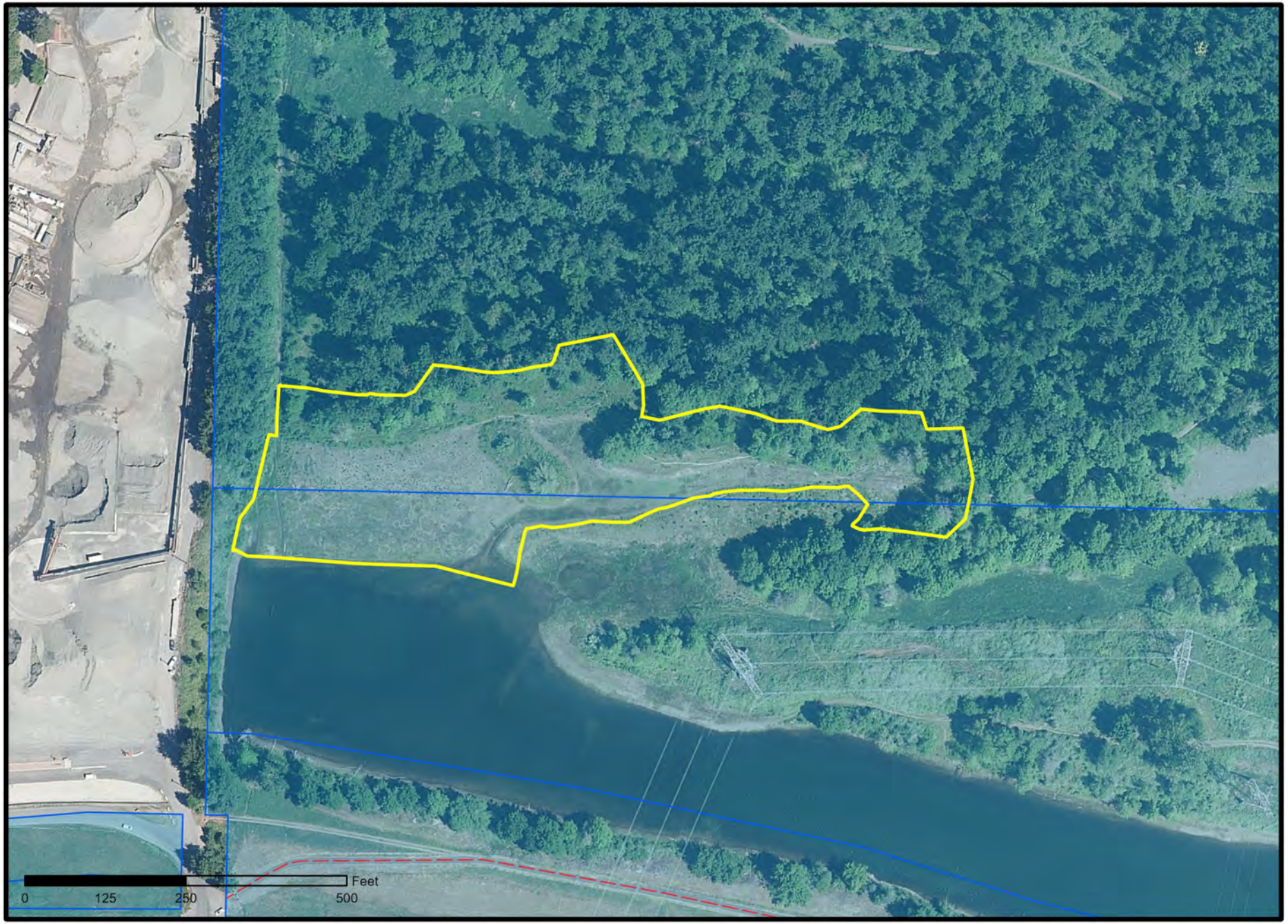
cc:

Oregon Department of State Lands (Butterfield)

APPENDIX B

SITE FIGURES

Appendix B-1


Feet
0
125
250
500
PORT OF PORTLAND
COMPANY LAKE
N
40-Mile Loop Trail
Port Tax Lots

Appendix B-2

PORT OF PORTLAND

EAST LAKE

Appendix B-3

PORT OF PORTLAND

TREE MITIGATION

APPENDIX C

SITE PHOTOS

Appendix C

A Honey Bee (*Apis Linnaeus*) at Company Lake with western goldentop (*Euthamia occidentalis*).

Great Blue Heron (*Ardea herodias*) at Company Lake.

Painted Lady (*Vanessa cardui*) at East Lake with spikerush (*Eleocharis* sp.).

A hatchling Western Painted Turtle (*Chrysemys picta ssp. Bellii*) at East Lake.

Rusty Tussock Moth caterpillar (*Orgyia antiqua*) at Company Lake.

Company Lake when dry.

Company Lake when flooded.

Company Lake before replanting.

Company Lake after replanting.

East Lake after original planting.

East Lake at final year of monitoring.

Purple Martin (*Progne subis*) perched on top of nesting gourds at East Lake.

Variegated Meadowhawk (*Sympetrum corruptum*) at East Lake.

Western Painted Turtle (*Chrysemys picta ssp. Bellii*) at East Lake.

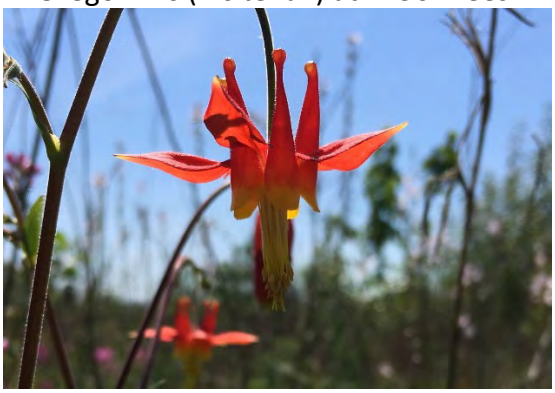
Purple Martin (*Progne subis*) nesting in an installed snag at East Lake.

Tree Swallow (*Tachycineta bicolor*) nesting in an installed snag at Company Lake.

Northern Pacific Tree Frog (*Pseudacris regilla*) at Company Lake.

Woodland Skipper (*Ochlodes sylvanoides*) at 1290 Trees.

Oregon Iris (*Iris tenax*) at 1290 Trees.



Western Columbine (*Aquilegia Formosa*) at 1290 Trees.

Farewell-To-Spring (*Clarkia amoena*) at 1290 Trees.

Fuzzy-Horned Bumble Bee (*Bombus mixtus*) at 1290 Trees.

Yellow-faced Bumble Bee (*Bombus vosnesenskii*) at 1290 Trees.

California Bumble Bee (*Bombus californicus*) at 1290 Trees.

APPENDIX D

CUMULATIVE PLANT SPECIES LIST

Appendix D: Cumulative Plant Species List for TRIP Phase I

KEY: N=Native, I=Introduced, unk=unknown, both=considered both native and introduced in Oregon
P=Planted, S=Seeded, O=Observed

Botanical Name	Common Name	Status	Company Lake	East Lake	Tree Mitigation
Acer macrophyllum	big-leaf maple	N	P		P
Achillea millefolium	yarrow	N		S,O	S,O
Agrostis capillaris	colonial bentgrass	I	O	O	O
Agrostis exarata	spike bentgrass	N	P,S,O	P,S,O	
Agrostis gigantea	redtop	I			O
Agrostis sp.	bentgrass species	unk.	O		
Agrostis stolonifera	creeping bentgrass	I	O	O	
Aira caryophyllea	silver hairgrass	I	O	O	
Alisma plantago-aquatica v. americanum	American waterplantain	N	S,O	P,S,O	
Alisma triviale	northern water plantain	N	S,O	S,O	
Allium amplectens	narrowleaf onion	N	S	S	
Alnus rubra	red alder	N	P,O		O
Alopecurus aequalis	shortawn foxtail	N	O	O	
Alopecurus geniculatus	water foxtail	I	O	O	
Alopecurus pratensis	meadow foxtail	I		O	
Amsinckia menziesii	common fiddleneck	N			S,O
Anthemis cotula	stinking chamomile	I		O	
Anthoxanthum odoratum	sweet vernalgrass	I		O	O
Aquilegia formosa	western columbine	N			S,O
Arabidopsis thaliana	mouseear cress	I	O	O	O
Arbutus menziesii	Pacific madrone	N	P		
Arctium sp.	burdock species	I		O	
Artemisia douglasiana	Douglas's sagewort	N			S
Asclepias speciosa	showy milkweed	N		S	
Avena fatua	wild oat	I		O	
Azolla filiculoides	Pacific mosquitofern	N		O	
Azolla microphylla	Mexican mosquito fern	N		O	
Beckmannia syzigachne	slough grass	N	S,O	P,S	
Bidens cernua	nodding beggartick	N	O		
Bidens frondosa	devil's beggartick	N	O	O	
Brassica nigra	black mustard	I		O	
Bromus carinatus	California brome	N	S,O	S,O	S,O
Bromuis diandrus ssp. rigidus	ripgut brome	I		O	
Bromus hordeaceus	soft brome	I	O	O	O
Bromus sitchensis	Alaska brome	N	S,O	S	S
Bromus tectorum	cheatgrass	I		O	
Calandrinia menziesii	red maids	N			O
Camassia leichtlinii	large camas	N		S	S
Camassia quamash	small camas	N	S	S	
Cardamine hirsuta	hairy bittercress	I	O	O	O
Carex amplifolia	bigleaf sedge	N		P	
Carex aperta	Columbia sedge	N	S	P,O	
Carex densa	dense sedge	N	S	P,S	
Carex deweyana	Dewey sedge	N			P

Botanical Name	Common Name	Status	Company Lake	East Lake	Tree Mitigation
Carex feta	greensheathed sedge	N	O		
Carex obnupta	slough sedge	N	P,S,O	P,S,O	
Carex pachystachya	chamisso sedge	N	S,O	S	
Carex scoparia	broom sedge	N	S	S	
Carex sp.	sedge sp.	unk.	O	O	
Carex stipata	sawbeak sedge	N	S	S	
Carex unilateralis	lateral sedge	N	S	P,S	
Centaurea diffusa	diffuse knapweed	I		O	
Centaurium erythraea	common centaury	I		O	
Cerastium glomeratum	sticky chickweed	I	O	O	
Chamaesyce maculata	spotted sandmat	N	O	O	
Chara sp.	charophyte green algae	unk.		O	
Cirsium arvense	Canada thistle	I	O	O	O
Cirsium vulgare	bull thistle	I	O	O	
Clarkia ameona	farewell-to-spring	N		S	S,O
Clarkia rhomboidea	diamond carkia	N			S,O
Clarkia purpurea ssp quadrivulnera	winecup clarkia	N	S	S	S,O
Claytonia perfoliata	miner's lettuce	N	O		O
Collinsia grandiflora	giant blue eyed Mary	N			S,O
Collinsia parviflora	maiden blue eyed Mary	N			O
Collomia grandiflora	grand collomia	N			S,O
Conium maculatum	poison hemlock	I	O	O	O
Convolvulus arvensis	field bindweed	I			O
Conyza canadensis	Canadian horseweed	N	O	O	O
Cornus sericea	red-osier dogwood	N	P,O	P,O	
Crataegus douglasii	black hawthorn	N	P	P	P,O
Cyperus erythrorhizos	redroot flatsedge	N	O	O	
Cyperus strigosus	strawcolored flatsedge	N	O		
Cytisus scoparius	Scotch broom	I		O	O
Dactylis glomeratus	orchardgrass	I	O	O	
Danthonia californica	California oatgrass	N	S	S	
Daucus carota	Queen Anne's Lace	I		O	
Deschampsia cespitosa	tufted hairgrass	N	P,S,O	P,S	
Deschampsia elongata	slender hairgrass	N	S,O	S,O	
Dipsacus fullonum	Fuller's teasel	I	O		
Downingia elegans	elegant calicoflower	N	S	S,O	
Dysphania ambrosioides	Mexican tea	both		O	
Dysphania botrys	Jerusalem oak goosefoot	I		O	
Echinochloa crus-galli	barnyardgrass	I	O	O	
Eleocharis acicularis	needle spikerush	N	O	O	
Eleocharis macrostachya	creeping spikerush	N	O	O	
Eleocharis ovata	ovoid spikerush	N	O	P,O	
Eleocharis palustris	common spikerush	N	O	S,O	
Elodea canadensis	Canadian waterweed	N	O		
Elymus glaucus	blue wildrye	N	S,O	S,O	S,O
Elymus sp.	quackgrass	I	O		
Epilobium brachycarpum	tall annual willowherb	N		O	
Epilobium ciliatum	hairy willowherb	N	O	O	O
Epilobium densiflorum	denseflower willowherb	N	S	S	S
Equisetum arvense	field horsetail	N	O	O	

Botanical Name	Common Name	Status	Company Lake	East Lake	Tree Mitigation
Equisetum fluviatile	water horsetail	N		O	
Equisetum hyemale	scouringrush horsetail	N	O		
Eragrostis hypnoides	teal lovegrass	N		O	
Eriophyllum lanatum	Oregon sunshine	N	S	S	S,O
Erodium cicutarium	red stem stork's bill	I		O	
Eschscholzia californica	California poppy	N			S
Euthamia graminifolia	flat-top goldentop	N	O		
Euthamia occidentalis	western goldentop	N	O		
Festuca idahoensis	Roemer's fescue	N			S
Festuca occidentalis	western fescue	N	S	S	S
Festuca rubra	red fescue	both	O	O	
Frangula purshiana	cascara	N			P
Fraxinus latifolia	Oregon ash	N	P,O	O	P,O
Fungi	mushroom	unk.			
Galium aparine	stickywilly	N	O	O	O
Galium trifidum	threepetal bedstraw	N	O		
Geranium molle	dovefoot geranium	I		O	O
Geum macrophyllum	largleaf avens	N	S		P,S,O
Gilia capitata	bluefield gilia	N			O
Glechoma hederacea	ground ivy	I		O	
Glyceria occidentalis	northwestern mannagrass	N	S	S	
Gnaphalium palustre	western marsh cudweed	N	O	O	
Gnaphalium sp.	unidentified cudweed	unk.		O	
Gnaphalium uliginosum	marsh cudweed	I	O	O	O
Gratiola neglecta	clammy hedgehyssop	N		O	
Grindelia integrifolia	Puget Sound gumweed	N	S,O	S	S
Grindelia sp.	gumweed	unk.	O	O	
Heracleum maximum	common cowparsnip	N	S		
Holcus lanatus	velvet grass	I	O	O	O
Hordeum brachyantherum	meadow barley	N	S,O	S,O	S
Hypericum perforatum	St. John's wort	I	O	O	O
Hypholoma capnoides	smoky-gilled hypholoma	unk.			O
Hypochaeris radicata	hairy cat's ear	I	O	O	O
Iris tenax	toughleaf iris	N			S,O
Juncus acuminatus	tapered rush	N		O	
Juncus bufonius	toad rush	N	O	O	
Juncus effusus	soft rush	N	O		
Juncus ensifolius	dagger-leaf rush	N	S,O	P,S,O	
Juncus patens	spreading rush	N		P	
Juncus oxymeris	pointed rush	N	O	P,S	
Juncus tenuis	slender rush	N	P,S,O	P,S,O	
Kickxia elatine	sharpleaf cancerwort	I	O		
Lactuca serriola	prickly lettuce	I		O	O
Lactuca virosa	bitter lettuce	I			O
Lapsana communis	common nipplewort	I	O		
Leersia oryzoides	rice cutgrass	N	S	P,O	
Leontodon taraxacoides	lesser hawkbit	I	O	O	
Leucanthemum vulgare	oxeye daisy	I	O	O	
Ligusticum apiifolium	celeryleaf licorice-root	N			S
Ligusticum capillifolium	licorice root	N			S

Botanical Name	Common Name	Status	Company Lake	East Lake	Tree Mitigation
Linaria vulgaris	butter and eggs	I			O
Lindernia dubia	yellowseed false pimpernel	N	O	O	
Lolium perenne	perenial ryegrass	I	O	O	O
Lolium temulentum	Darnel ryegrass	I	O	O	
Lomatium dissectum	fernleaf biscuitroot	N			S
Lomatium nudicaule	barestem biscuitroot	N			S,O
Lonicera involucrata	black twinberry	N	P	P	
Lotus corniculatus	bird's-foot trefoil	I	O	O	
Lotus pinnatus	meadow bird's-foot trefoil	N	S	S	
Lotus unifoliolatus	American bird's-foot trefoil	N	S	S	S
Ludwigia palustris	marsh seedbox	N	O	O	
Lupinus albicaulis	sicklekeel lupine	N			S
Lupinus rivularis	streambank lupine	N		S	S,O
Lythrum portula	spatulaleaf loosestrife	I	O	O	
Lythrum salicaria	purple loosestrife	I	O	O	
Madia elegans	common madia	N		S	S,O
Madia glomerata	mountain tarweed	N	S	S	S,O
Madia gracilis	grassy tarweed	N			O
Madia sp.	tarweed	N		O	O
Malus fusca	western crabapple	N	P	P	
Matricaria discoidea	disc mayweed	I		O	
Mazus pumilus	Japanese mazus	I		O	
Melilotus officinalis	sweetclover	I		O	
Mentha arvensis	wild mint	N	O	O	
Mentha pulegium	pennyroyal	I	O	O	
Microsteris gracilis	slender phlox	N	S	S	
Mimulus guttatus	creek monkeyflower	N	S,O	S	
Mollugo verticillata	green carpetweed	N		O	
Montia linearis	narrowleaf minerslettuce	N	S	S	
Myosotis discolor	changing forget-me-not	I		O	
Myosotis laxa	bay forget-me-not	N	O	O	
Myriophyllum spicatum	Eurasian watermilfoil	I	O		
Nemophila menziesii	baby blue eyes	N			S
Nemophila parviflora	smallflower nemophilia	N			O
Oemleria cerasiformis	Indian plum	N	O		
Oneanthe sarmentosa	water parsely	N	S		
Oenothera biennis	common evening primrose	N			O
Panicum capillare	witchgrass	N	O	O	
Parentucellia viscosa	yellow glandweed	I		O	
Paspalum distichum	knotgrass	N	O		
Perideridia oregana	Oregon yampah	N		S	
Phacelia heterophylla	verileaf phacelia	N			S,O
Phalaris arundinacea	reed canarygrass	I	O	O	
Physocarpus capitatus	Pacific ninebark	N		P,O	
Plagiobothrys figuratus	fragrant popcornflower	N	S	S	
Plagiobothrys nothofulvus	rusty popcornflower	N			S
Plagiobothrys scouleri	Scouler's popcornflower	N		S	
Plantago arenaria	sand plantain	I			
Plantago lanceolata	narrowleaf plantain	I	O	O	
Plantago major	common plantain	I	O	O	

Botanical Name	Common Name	Status	Company Lake	East Lake	Tree Mitigation
Plectritis congesta	shortspur seablush	N		S	S
Poa annua	annual bluegrass	I	O	O	
Poa palustris	fowl bluegrass	N		O	
Poa pratensis	Kentucky bluegrass	both		O	
Poa trivialis	rough bluegrass	I	O	O	
Polygonum amphibium	water knotweed	N	O	O	
Polygonum aviculare	prostrate knotweed	I	O	O	
Polygonum douglasii	Douglas' knotweed	N		O	
Polygonum hydropiper	marshpepper knotweed	I	O		
Polygonum hydropiperoides	swamp smartweed	N	O	O	
Polygonum lapathifolium	curlytop knotweed	N			
Polygonum persicaria	spotted ladysthumb	I	O	O	
Polygonum punctatum	dotted smartweed	N	O	O	
Polygonum sp.	unidentified smartweed	unk.	O		
Polystichum munitum	sword fern	N	P,O		P
Populus balsamifer ssp. trichocarpa	black cottonwood	N	P,O	O	P,O
Potamogeton crispus	curly pondweed	I		O	
Potamogeton foliosus	leafy pondweed	N	O	O	
Potamogeton nodosus	longleaf pondweed	N		O	
Potentilla glandulosa	sticky cinquefoil	N			S
Potentilla gracilis	slender cinquefoil	N		S	S
Prunella vulgaris var lanceolata	lance selfheal	N	O	S,O	S,O
Pseudognaphalium canescens	Wright's cudweed	N		O	
Pseudognaphalium luteoalbum	Jersey cudweed	I	O		
Pseudotsuga menziesii	Douglas-fir	N			P,O
Quercus garryana	Oregon white oak	N			P,O
Ranunculus flammula	greater creeping spearwort	N		O	
Ranunculus occidentalis	western buttercup	N			S
Ranunculus orthorhynchus	straightbeak buttercup	N		S	
Ranunculus uncinatus	woodland buttercup	N	O		S
Ribes divaricatum	wax current	N	P	P	
Ribes sanguineum	red flowering currant	N		P	
Rorippa curvisiliqua	Western yellow cress	N	S,O	S,O	
Rorippa palustris	bog yellowcress	N	O		
Rorippa sp.	yellowcress	unk.	O	O	
Rosa multiflora	multiflora rose	I	O		
Rosa nutkana	Nootka rose	N	P,O	P,O	O
Rosa pisocarpa	swamp rose	N	P,O	P,O	
Rubus ameniacus	Himalayan blackberry	I	O	O	O
Rubus parviflorus	thimbleberry	N	P	P	
Rubus spectabilis	salmonberry	N			P
Rumex acetosella	common sheep sorrel	I		O	
Rumex crispus	curly dock	I		O	
Rumex salicifolius	willow dock	N	S	S	S
Ranunculus uncinatus	woodland buttercup	N			S
Ruperia physodes	forest scurfpea	N			S
Sagittaria latifolia	wapato	N		P,O	
Salix fluviatilis	Columbia river willow	N	P,O	P	
Salix hookeriana	Hooker Willow	N	P		
Salix lucida sp. lasiandra	Pacific willow	N	P,O	P,O	P,O

Botanical Name	Common Name	Status	Company Lake	East Lake	Tree Mitigation
Salix lutea	yellow willow	N	P,O	O	
Salix scouleriana	Scouler willow	N	P,O	P	P
Salix sessilifolia	northwest sandbar willow	N	O		
Salix sitchensis	Sitka willow	N	P,O	O	
Salix sp.	willow species	N	P	O	
Sambucus racemosa	red elderberry	N		P,O	P,O
Sanguisorba annua	prairie burnet	N	S	S	S
Schedonorus arundinaceus	tall fescue	I	O	O	
Schedonorus pratensis	meadow fescue	I	O	O	
Schoenoplectus acutus	hardstem bulrush	N	P,S	P	
Schoenoplectus americanus	chairmaker's bulrush	N		P	
Schoenoplectus tabernaemontanii	softstem Bulrush	N	S,O	P,O	
Scirpus microcarpus	small fruited bulrush	N	S	S,P	
Senecio jacobaea	stinking willie	I			O
Senecio sylvaticus	woodland ragwort	I		O	
Senecio vulgaris	old-man-in-the-Spring	I	O		O
Sidalcea campestris	meadow checkermallow	N		S	S,O
Sidalcea malviflora ssp virgata	dwarf checkerbloom	N			S,O
Solanum nigrum	black nightshade	I		O	
Solidago canadensis	Canada goldenrod	N		S,O	O
Solidago gigantea	giant goldenrod	N			O
Sonchus arvensis	field sowthistle	I			
Sonchus asper	spiny sowthistle	I		O	O
Sparganium eurycarpum	broadfruit bur-reed	N	P	P	
Spergularia rubra	red sandspurry	I		O	
Spiraea douglasii	Douglas' spirea	N	P,O	P,O	
Stellaria media	common chickweed	I		O	
Symphoricarpos albus	snowberry	N	P,O	P,O	O
Symphyotrichum hallii	Hall's aster	N		S	
Tanacetum vulgare	common tansy	I	O	O	
Taraxacum officinale	common dandelion	both		O	O
Tellima grandiflora	bigflower tellima	N			P
Thalictrum polycarpum	Fendler's meadow-rue	N		S	
Thuja plicata	Western redceder	N			P
Tolmiea menziesii	Piggyback plant	N			P
Trifolium arvense	rabbitfoot clover	I		O	
Trifolium dubium	suckling clover	I		O	
Trifolium pratense	red clover	I		O	
Trifolium repens	white clover	I	O	O	
Trifolium subterraneum	subterranean clover	I		O	
Triteleia hyacinthina	white brodiaea	N	S	S	
Typha latifolia	broadleaf cattail	N	O		
Urtica dioica	stinging nettle	both	O	O	
Verbascum blattaria	moth mullein	I			O
Verbascum thapsus	common mullein	I		O	O
Veronica peregrina	neckweed	N	S,O	S,O	
Veronica serpyllifolia	thymeleaf speedwell	both	O	O	
Vicia hirsuta	tiny vetch	I		O	
Vicia sativa	garden vetch	I		O	O
Viola praemorsa	canary violet	N			S

Botanical Name	Common Name	Status	Company Lake	East Lake	Tree Mitigation
Vulpia bromoides	brome fescue	I		O	
Vulpia myuros	rat-tail fescue	I	O	O	O
Xanthium strumarium	rough cocklebur	N	O	O	
Sterile wheat	wheat x wheat hybrid	n/a	S	S	S

Note: nomenclature and status follow the PLANTS Database:

USDA, NRCS. 2022. The PLANTS Database (http://plants.usda.gov, 06/07/2022). National Plant Data Team, Greensboro, NC USA.

APPENDIX E

CUMULATIVE WILDLIFE OBSERVATIONS

Appendix E: Cumulative Wildlife Observations at TRIP Phase I 2008-2019

Locations: Company Lake, East Lake, Tree Mitigation sites, levee and adjacent areas

Observations collected by Carrie Butler and Sarah Wilson (Port), Taya MacLean and Jim DeStaebler (SWCA) and Christie Galen (PHS)

Common Name	Scientific Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
BIRDS													
accipiter, unidentified	unidentified						X						
American coot	*Fulica americana*					X	X						
American crow	*Corvus brachyrhynchos*	X	X	X	X	X	X	X	X	X	X	X	
American dipper	*Cinclus mexicanus*		X										
American goldfinch	*Carduelis tristis*	X	X	X	X	X	X	X	X	X		X	X
American kestrel	*Falco sparverius*	X	X	X	X	X	X	X	X	X	X	X	
American pipit	*Anthus rubescens*						X						
*American robin	*Turdus migratorius*	X	X	X	X	X	X	X	X	X	X	X	X
American wigeon	*Anas americana*		X	X		X	X	X	X	X			
Anna's hummingbird	*Calypte anna*	X					X	X	X	X	X	X	X
bald eagle	*Haliaeetus leucocephalus*		X	X	X		X	X	X	X		X	
barn swallow	*Hirundo rustica*	X							X			X	
belted kingfisher	*Ceryle alcyon*	X	X	X	X	X	X	X	X			X	
Bewick's wren	*Thryomanes bewickii*	X	X	X	X	X	X	X	X				
black-capped chickadee	*Poecile atricapillus*	X	X	X	X	X	X	X	X	X	X		
black-headed grosbeak	*Pheucticus melanocephalus*	X		X	X	X							
black phoebe	*Sayornis nigricans*						X						
black-throated gray warbler	*Dendroica nigrescens*				X								
blue-winged teal	*Anas discors*						X						
Brewer's blackbird	*Euphagus cyanocephalus*							X					
brown creeper	*Certhia americana*		X		X	X	X	X	X		X		
brown-headed cowbird	*Molothrus ater*	X		X	X	X	X	X	X			X	X
bufflehead	*Bucephala albeola*		X		X	X	X	X	X	X			
Bullock's oriole	*Icterus bullockii*	X		X	X	X	X	X	X			X	
bushtit	*Psaltriparus minimus*			X	X	X	X	X	X				X
cackling goose	*Branta canadensis minima*			X	X		X		X				
California quail	*Callipepla californica*			X	X								
*Canada goose	*Branta canadensis*	X	X	X	X	X	X	X	X	X	X	X	X
Caspian tern	*Sterna caspia*		X										
cedar waxwing	*Bombycilla cedrorum*	X	X	X	X	X	X	X	X	X	X		X
cliff swallow	*Petrochelidon pyrrhonota*						X						

Common Name	Scientific Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
common merganser	*Mergus merganser*		X	X	X	X	X		X				
common yellowthroat	*Geothlypis trichas*	X		X	X	X	X	X	X		X	X	X
dark-eyed junco (Oregon)	*Junco hyemalis thurberi*		X	X	X	X	X	X	X	X		X	
double-crested cormorant	*Phalacrocorax auritus*		X	X	X	X	X	X	X			X	
downy woodpecker	*Picoides pubescens*	X	X	X	X	X	X	X				X	
duck, domestic/hybrid	unidentified				X								
Eastern kingbird	*Tyrannus tyrannus*				X								
European starling	*Sturnus vulgaris*	X		X	X	X	X	X	X	X		X	X
Eurasian wigeon	*Anas penelope*						X		X				
falcon unidentified	unidentified					X							
fox sparrow	*Passerella iliaca*						X						
gadwall	*Anas strepera*				X	X	X	X					
glaucus-winged gull	*Larus glaucescens*						X						
golden-crowned kinglet	*Regulus satrapa*				X			X	X				
golden-crowned sparrow	*Zonotrichia atricapilla*		X	X	X		X	X					
great blue heron	*Ardea herodias*	X	X	X	X	X	X	X	X	X	X	X	X
great egret	*Ardea alba*				X		X	X	X	X			
greater white-fronted goose	*Anser albifrons*							X					
greater yellowlegs	*Tringa melanoleuca*			X	X		X	X	X				
great-horned owl	*Bubo virginianus*		X	X									
green heron	*Butorides virescens*	X		X	X	X			X				
green-winged teal	*Anas crecca*				X		X		X				
gull, unidentified	*Larus* sp.		X	X	X	X	X	X					
hairy woodpecker	*Picoides villosus*		X	X	X	X	X	X	X	X	X		
hermit thrush	*Catharus guttatus*				X		X						
hooded merganser	*Lophodytes cucullatus*		X	X	X	X	X	X	X	X			
house finch	*Carpodacus mexicanus*	X	X	X	X	X	X		X	X	X	X	X
house wren	*Troglodytes aedon*		X	X	X		X	X				X	
hummingbird, undentified	unidentified		X			X							
kinglet unidentified	*Regulus* sp.						X						
*killdeer	*Charadrius vociferus*			X	X	X	X	X	X	X	X	X	
lazuli bunting	*Passerina ameona*			X	X	X		X					
lesser scaup	*Aythya affinis*			X									
lesser yellowlegs	*Tringa flavipes*				X								
loggerhead shrike	*Lanius ludovicianus*								X				
marsh wren	*Cistothrus palustris*						X						
mallard	*Anas platyrhynchos*	X	X	X	X	X	X	X	X	X	X	X	X

Common Name	Scientific Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
mourning dove	*Zenaida macroura*	X	X	X	X	X	X	X	X	X	X		X
northern flicker	*Colaptes auratus*	X	X	X	X	X	X	X	X	X	X	X	X
northern harrier	*Circus cyaneus*						X						
northern pintail	*Anas acuta*								X				
northern shoveler	*Anas clypeata*						X						
nuthatch, unidentified	*Sitta* sp.			X		X	X	X					
osprey	*Pandion haliartus*	X	X	X	X	X	X	X	X	X			
pied-billed grebe	*Podilymbus podiceps*				X	X	X						
pileated woodpecker	*Dryocopus pileatus*			X	X	X	X	X	X		X	X	
*purple martin	*Progne subis*										X	X	X
red-breasted sapsucker	*Sphyrapicus ruber*				X		X		X				
*red-tailed hawk	*Buteo jamaicensis*	X	X	X	X	X	X	X	X		X	X	
*red-winged blackbird	*Agelaius phoeniceus*	X			X		X						
ring-necked duck	*Aythya collaris*		X	X			X	X	X				
ring-necked pheasant	*Phasianus colchicus*	X											
rufous hummingbird	*Selasphorus rufus*						X	X	X				
Savannah sparrow	*Passerculus sandwichensis*	X					X	X	X		X		
Say's phoebe	*Sayornis saya*												
sharp-shinned hawk	*Accipiter striatus*						X						
snow goose	*Chen caerulescens*						X						
song sparrow	*Melospiza melodia*	X	X	X	X	X	X	X	X	X	X	X	
*spotted sandpiper	*Actitis macularia*	X		X	X	X	X	X	X		X		X
spotted towhee	*Pipilio maculatus*	X	X	X	X	X	X	X	X	X	X	X	X
Swainson's thrush	*Catharus ustulatus*			X	X	X	X	X	X		X	X	X
*tree swallow	*Tachycineta bicolor*	X	X	X	X	X	X	X	X	X	X	X	X
turkey vulture	*Cathartes aura*	X	X	X	X	X	X	X	X		X	X	
varied thrush	*Ixoreus naevius*				X		X	X	X				
Vaux’s swift	*Chaetura vauxi*	X			X				X				
violet-green swallow	*Tachycineta bicolor*	X			X	X	X	X				X	
warbling vireo	*Vireo gilvus*			X									
western meadowlark	*Sturnella neglecta*						X	X	X	X			
western scrub jay	*Aphelocoma californica*	X	X	X	X	X	X	X	X	X			X
western tanager	*Piranga ludoviciana*	X						X					
western wood-peewee	*Contopus sordidulus*	X	X	X	X	X	X	X	X	X	X	X	
white-breasted nuthatch	*Sitta carolinensis*			X	X	X	X						
white-crowned sparrow	*Zonotrichia leucophrys*				X		X	X					
willow flycatcher	*Empidonax traillii*			X	X		X	X	X			X	X

Common Name	Scientific Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
winter wren	*Troglodytes troglodytes*				X								
Wilson's snipe	*Gallinago delicata*					X							
Wilson's warbler	*Wilsonia pusilla*	X		X		X	X						X
*wood duck	*Aix sponsa*	X	X	X	X	X	X	X	X		X	X	X
yellow-breasted chat	*Icteria virens*					X							
yellow-headed blackbird	*Xanthocephalus xanthocephalus*						X						
yellow-rumped warbler	*Dendroica coronata*	X	X		X		X	X	X			X	
yellow warbler	*Dendroica petechia*	X	X	X	X	X	X	X	X			X	
MAMMALS													
coyote	*Canis latrans*	X		X	X	X	X	X					
domestic dog	*Canis lupus familiaris*				X		X		X				
beaver	*Castor canadensis*		X	X	X	X	X	X			X		
North American river otter	*Lontra canadensis*										X		
nutria	*Myocastor coypus*						X						
*black-tailed deer	*Odocoileus hemionus*	X	X	X	X	X	X	X	X		X	X	
muskrat	*Ondatra zibethicus*				X	X							
raccoon	*Procyon lotor*		X	X	X	X	X	X				X	
mole	*Scapanus* sp.		X	X	X		X	X					
Eastern fox squirrel	*Sciurus niger*	X											
tree squirrel	*Scurius* sp.	X	X				X						
cottontail rabbit	*Sylvilagus floridanus*						X	X			X		
HERPTILES													
*long-toed salamander	*Ambystoma macrodactylum*					X	X	X		X	X	X	X
*Western painted turtle	*Chrysemys picta bellii*	X		X	X	X	X		X	X	X	X	X
*Northern Pacific treefrog	*Pseudacris regilla*	X	X	X	X	X	X	X	X	X	X	X	X
*Northern red-legged frog	*Rana aurora*						X					X	X
*bullfrog	*Rana catesbeiana*		X	X	X	X	X	X	X	X	X	X	
Northwestern garter snake	*Thamnophis ordinoides*						X	X	X	X			X
common garter snake	*Thamnophis sirtalis*	X		X	X	X	X	X	X				
red-spotted garter snake	*Thamnophis sirtalis concinnus*										X	X	
garter snake	*Thamnophis* sp.		X	X	X								
red-eared slider	*Trachemys scripta*				X		X		X	X			X
turtle unidentified	unidentified			X		X							

Common Name	Scientific Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FISH													
black bullhead	*Ameiurus melas*											X	
common carp	*Cyprinus carpio*			X	X			X					
mosquito fish	*Gambusia affinis*	X	X		X		X	X					
threespine stickleback	*Gasterosteus aculeatus*				X								
bullhead	*Ictalurus* sp.	X											
pumpkinseed sunfish	*Lepomis gibbosus*	X				X		X					
bluegill	*Lepomis macrochirus*	X				X	X						
pond loach	*Misgurnus anguilicaudatus*												X
longnosed dace	*Rhinichthys cataractae*						X						
catfish	unidentified						X					X	
fish unidentified	unidentified			X	X	X							
OTHER (by taxonomic order)													
Order Coleoptera													
ten-lined June beetle	*Polyphylla decemlineata*									X			
alder flea beetle	*Macrohaltica ambiens*						X	X		X			
Saint John's wort beetle	*Chrysolina hyperici*												X
common lady beetle	subfamily *Coccinellinae*										X		
pale green weevil	*Polydrusus impressifrons*							X					
Order Hymenoptera													
California bumble bee	*Bombus californicus*												X
fuzzy-horned bumble bee	*Bombus mixtus*											X	X
yellow-faced bumble bee	*Bombus vosnesenskii*												X
Edward's long-horned bee	*Eucera edwardsii*												X
mason bee	Genus *Osmia*									X			
cutworm wasp	Genus *Podalonia*												X
Order Lepidoptera													
Fall webworm moth	*Hyphantria cunea*									X			
Lorquin's admiral	*Limenitis lorquini*								X				
mourning cloak	*Nymphalis antiopa*						X	X					
woodland skipper	*Ochlodes sylvanoides*												X
rusty tussock moth	*Orgyia antiqua*						X						
western tiger swallowtail	*Papilio rutulus*				X	X	X	X					X
red admiral	*Vanessa atalanta*									X			
painted lady	*Vanessa cardui*					X	X	X					X

Common Name	Scientific Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Order Odonata													
eight-spotted skimmer	*Libellula forensis*				X	X							
twelve-spotted skimmer	*Libellula pulchella*						X						
red skimmer	*Libellula* sp.			X									
variegated meadowhawk	*Sympetrum corruptum*												
meadowhawk	*Sympetrum* sp.				X								
common whitetail	*Plathemis lydia*											X	
dragonfly	unidentified				X					X			
Order Stylommatophora													
Oregon forestsnail	*Allogona townsendiana*							X					
banana slug	*Ariolimax* sp.			X			X						
grove snail	*Cepaea nemoralis*						X						
Pacific sideband	*Monadenia fidelis*						X				X		
garden snail	unidentified			X			X						
Order Unionidae													
California floater	*Anodonta californiensis*						X						
freshwater clam	*Anodonta sp.*												X
Miscellaneous													
cross orbweaver	*Araneus diadematus*						X						
centipede	*Chilopoda* sp.						X						
millipede	*Diplopoda*						X						
Carolina grasshopper	*Dissosteira carolina*								X				
water scorpion	*Nepidae* sp.						X						
crayfish	*Pacifastacus* sp.						X						
magnificent bryozoan	*Pectinatella magnifica*								X			X	
praying mantis	*Stagmomantis* sp.				X	X							
bryozoa	unidentified						X						
crayfish	unidentified			X									
grasshoppers	unidentified				X								

*Observed nest or young on site

Note: data is based (primarily) on incidental observation of a species or evidence of species presence; intentional amphibian surveys were conducted and a pollinator survey at the Tree Mitigation sites. Intentional bird surveys were conducted along the levee from 2012-2019 but the data is not incorporated here due to the much larger study area.

APPENDIX F

SITE ACTIVITIES

Appendix F: SITE ACTIVITIES 2019-2022

YR/MO	LOCATION	DESCRIPTION
2019		
FEB	Company & East Lakes	Amphibian egg mass survey
MAR	Company Lake	re-installed staff gage
APR	East Lake	Observed hatchling western painted turtle emerge from nest hole
	East Lake	Installed purple martin nesting gourd array
	300 Trees	Spot treated invasive species
	Company & East Lakes	Spot treated invasive species
	1290 Trees	Installed 75 native shrubs
JUN	Company & East Lakes	Spot treated invasive species; purple martins observed using nest gourd array at East Lake
JUL	Company & East Lakes & 300 Trees	Conducted final (Year 10) vegetation compliance monitoring
AUG	300 & 1290 Trees	Flail mowed buffer to tree sites
SEP	Company & East Lakes	Spot treated invasive species
	300 & 1290 Trees	Cut/treated blackberry
OCT	300 Trees	Seeded native ground cover mix
	1290 Trees	Cut weeds
	300 & 1290 Trees	Tilled buffer to tree sites as site prep
	Company Lake	Spot treated invasive species; seeded wetland with 8 lbs. native seed
	East Lake	Spot treated invasive species; seeded wetland with 16 lbs. native seed; installed 650 wetland plugs
NOV	300 Trees	Installed 800 native understory plugs and new 'No Trespassing' sign
	Company Lake	Installed 450 wetland plugs and new 'No Trespassing' sign
2020		
MAR	Company Lake	Planted 550 willow and ash
	300 & 1290 Trees	Installed 100 sword fern in understory of 300 Trees; cut, treated and hand pulled Scotch broom in buffer to tree sites
JUL	Company & East Lakes	Spot treated invasive species
AUG	300 Trees	Spot treated invasive species
NOV	East Lake	Repaired gate
2021		
MAR-JUN	Company & East Lakes & Tree Sites	Spot treated invasive species; constructed a 1,000 square-foot turtle nesting habitat patch at East Lake
JUL-AUG	Company & East Lakes & Tree Sites	Spot treated invasive species
SEP-NOV	Company & East Lakes & Tree Sites	Spot treated invasive species
DEC	300 & 1290 Trees	Reseed slope between 300 and 1290 Trees; seed buffer to Tree sites
2022		
JAN	Tree Site	Planting (bareroot/gallon) - 200 Geranium oreganum, 400 Linum lewisii, 400 Penstemon heserius, 400 Sidalcea nelsonii. Geranium and penstemon planted on north side of levee, closer to Sandy River. Other species spread out, mainly focused on southern portion of field.
APR	Company Lake and Tree Site	Sign installation/repair at Company Lake. Spot treated invasive species at tree site.
MAY	Tree Site	Spot treated invasive species
SEP	Tree Site	Mow/cut

APPENDIX G

DOCUMENT LIST

Appendix G: TRIP Phase I Document List

General Reports and Documents	Author	Date
Final Report: Sandy River Delta Natural Resource Inventory	Salix Associates	Aug-92
Current Situation Summary	CH2M HILL	Apr-96
Natural Resources Baseline Report for the Alcoa/Reynolds Site	Jones & Stokes	Jul-03
Technical Memorandum-Hydrogeomorphic Assessment of Wetland/Riparian Functions	FES	Jul-03
Hydrogeomorphic (Judgmental) Assessement of Wetland Functions on the Alcoa Property	FES	Aug-03
Alcoa Wildlife-Aviation Risk Report	Jones & Stokes	Sep-04
Troutdale Reynolds Industrial Park Joint Permit Application	POP	Mar-08
Troutdale Reynolds Industrial Park, Phase I Biological Assessment	David Evans & Assoc.	Mar-08
Site Investigation and Ground Water Monitoring - Final	Foundation Engineering, Inc.	Jan-10
Letter to Green Earth Landscaping Re: Health & Safety Plan (HASP) Requirement for Troutdale Reynolds Industrial Park (TRIP) Work	POP	Mar-10
As-built Report TRIP Phase I Mitigation Sites Company Lake, East Lake, Salmon Creek & 300 Trees Site	POP	Mar-11
Port of Portland Botanical Survey of TRIP	SWCA	Nov-11
Compensatory Wetland Mitigation Plan Phase I Development, TRIP Revised March 10, 2015	POP	Mar-15
TRIP Phase I: East and Company Lakes Wetland Mitigation Sites Wetland Delineation Report	SWCA	Sep-18
Permits & Correspondence		
Letter from Renee Ferrera at BPA to David Irvine at POP_Land Use Agreement w/ attached map	DOE/BPA	Feb-96
Letter from O. Lee Rose to L. Devroy_Big Eddy-Troutdale Line & Ostrander-Troutdale No. 1_Land Use Agreement and associated maps	DOE/BPA	Nov-07
Conservation Easement 2007-216746 Recorded	RMC/OPRD	Dec-07
TRIP Phase I DSL Wetland Concurrence Letter	DSL	Mar-08
Letter from DSL Re: DSL Removal/Fill Permit Application No. 40094-RF T. 1N, R, 3E, Sections 23 & 24, Troutdale Reynolds Project, Multnomah County (filed with JPA)	DSL	Apr-08
DSL Permit No. 40094-RF; removal/fill Salmon Creek	DSL	Jul-08
Letter from Ed Tompkins to Landowners_ TFBV Vegetation Management Activities	DOE/BPA	Oct-08
Letter to BPA Re: TFBV and PORT/BPA Meeting of December 8, 2008	POP	Dec-08
Letter from O. L. Rose to L. Devroy_BPAs response to Dec. 31, 2008 Letter regarding mitigation	DOE/BPA	Jan-09
Corps Nationwide Permit NWP-2007-889	ACOE	May-09
DSL Wetland Delineation Concurrence Letter for Phase II, III and Tract C	DSL	Jun-09
E-mails between Lee Rose and L. Devroy_Maps marked up to show mitigation area.	POP/BPA	Jun-09
Land Use Agreement from BPA	POP/BPA	Aug-09
DSL 40094-RF Modified	DSL	Feb-11

Permits & Correspondence		
TRIP Phase 1 Permit Modification Request (letter w/site photos) - attached to permits	POP	Nov-11
Memo: TRIP Mitigation Site Prolonged Inundation Areas Analysis	SWCA	Aug-13
Letter: DSL Removal-Fill Permit 40094-RF Troutdale Reynolds Industrial Park Phase I, Multnomah County Modified Permit	DSL	Sep-14
Letter: DSL Removal-Fill Permit 40094-RF Troutdale Reynolds Industrial Park Phase I, Multnomah County Modified Permit	DSL	Feb-17
Letter: DSL Removal-Fill Permit 40094-RF, East Lake & Company Lake Mitigation (Release letter)	DSL	Jan-20
Letter: ACOE Permits NWP-2007-889 and NWP-2011-432 (Release letter)	ACOE	Mar-20
Annual Monitoring Reports		
2010 (Year 1) Monitoring Report Troutdale Reynolds Industrial Park Phase I Mitigation	POP	Jan-11
TRIP Phase 1 Permit Modification Request (letter w/site photos) - see permits	POP	Nov-11
2012 (Year 3) Monitoring Report Troutdale Reynolds Industrial Park Phase I Mitigation	POP	Dec-12
2013 (Year 4) Monitoring Report Troutdale Reynolds Industrial Park Phase I Mitigation	POP	Dec-13
2014 (Year 5) Letter Report, Troutdale Reynolds Industrial Park Phase I Mitigation	POP	Nov-14
2015 (Year 6) Mitigation Monitoring Report Company and East Lakes, 300 Trees & Salmon Creek	SWCA	Dec-15
2016 (Year 7) Mitigation Monitoring Report Company and East Lakes, 300 Trees & Salmon Creek	POP	Dec-16
2017 (Year 8) Mitigation Monitoring Report Company and East Lakes, 300 Trees	POP	Dec-17
2018 (Year 9) Mitigation Monitoring Report Company and East Lakes, 300 Trees	SWCA	Dec-18
2019 (Year 10) Mitigation Monitoring Report Company and East Lakes, 300 Trees	SWCA	Oct-19
2019 (Year 10) Mitigation Monitoring Report Company and East Lakes, 300 Trees REVISED FOR DSL	POP	Jan-20