

Rinearson Natural Area Habitat Development Plan

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Acronyms and Abbreviations

ACM	active channel margin
BLM	Bureau of Land Management
CHTR	Wildlife Capture, Holding, Transport, and Relocation
City	City of Gladstone
DDE	dichlorodiphenyldichloroethylene
DEM	digital elevation model
DEQ	Department of Environmental Quality
DMMU	dredge material management unit
DPS	distinct population segment
DSL	Oregon Department of State Lands
EDRR	early detection rapid response
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESC	erosion and sediment control
ESM	engineered streambank material
ESU	evolutionarily significant unit
FM	Flood Management Districts
GLO	General Land Office
GW	Greenway Conditional Use District
HCA	Habitat Conservation Areas
HEA	Habitat Equivalency Analysis
HUC	Hydrologic Unit Code
LiDAR	light detection and ranging
LCR	lower Columbia River
LWD	large woody debris
MHBI	Modified Hilsenhoff Biotic Index
MSL	mean sea level
NAVD88	North American Vertical Datum of 1988
NMFS	National Marine Fisheries Service
NRDA	Natural Resource Damage Assessment
NGVD29	National Geodetic Vertical Datum of 1929
NOAA	National Oceanic and Atmospheric Administration
NSM	new surface material
o.c.	on center
ODA	Oregon Department of Agriculture
ODFW	Oregon Department of Fish and Wildlife
OHWM	ordinary high water mark
OLSD	Oak Lodge Sanitary District
OLWM	ordinary low water mark

OS	Open Space Zoning
OWEB	Oregon Watershed Enhancement Board
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyls
PCS	point count stations
PREDATOR	Predictive Assessment Tool for Oregon
Project	Rinearson Natural Area Restoration Project
PSET	Portland Sediment Evaluation Team
RM	river mile
RRPOA	Robinwood Riviere Property Owners Association
SEF	Sediment Evaluation Framework
SHPO	State Historic Preservation Office
SLs	screening levels
Trustee Council	Portland Harbor Natural Resource Trustee Council
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWR	upper Willamette River
WillametteCRA	Willamette Cultural Resources Associates
WSE	water surface elevation
WQ	Water Quality Resource Area

Chapter 1. Project Overview

The Rinearson Natural Area Restoration Project (Project) is an aquatic, wetland, floodplain, and riparian restoration and enhancement project being developed with technical assistance from the Portland Harbor Natural Resource Trustee Council (Trustee Council) as part of a regional restoration plan for the lower Willamette River to provide ecological services to compensate for natural resource damages incurred as a result of industrial contamination of the Portland Harbor. The Project is in the outer harbor, part of the Broader Focus Area which extends from Willamette Falls downstream to river mile (RM) 12.3. Goals and objectives for the Project align with those set forth in the *Final Portland Harbor Programmatic EIS and Restoration Plan (Final Portland Harbor Restoration Plan)*; National Oceanic and Atmospheric Agency [NOAA] 2017).

The *Portland Harbor Restoration Plan* identifies several key fish and wildlife species which represent the feeding guilds that are most likely exposed to contaminants in the Portland Harbor. Restoration projects developed under the Portland Harbor Natural Resource Damage Assessment (NRDA) process must meet certain habitat criteria conducive to supporting the life histories of the selected species. The Project is being developed to primarily target the federally threatened upper Willamette River (UWR) spring-run Chinook salmon (*Oncorhynchus tshawytscha*) evolutionarily significant unit (ESU), the federally threatened lower Columbia River (LCR) Chinook salmon ESU, the federally threatened LCR steelhead (*O. mykiss*) distinct population segment (DPS), the federally threatened UWR steelhead DPS, and the LCR coho salmon (*O. kisutch*) ESU, hereafter referred to as the “target salmonids.” Once complete, this Project will also benefit a diverse array of aquatic, avian, and terrestrial species that reside either permanently or temporarily within the Willamette and Columbia Rivers. In addition to the target salmonids, the *Portland Harbor Restoration Plan* identifies the following species as targeted for restoration within Portland Harbor: bald eagle (*Haliaeetus leucocephalus*), mink (*Mustela vison*), osprey (*Pandion haliaetus*), spotted sandpiper (*Actitis macularius*), and Pacific lamprey (*Lampetra tridentata*). These species together with the target salmonids are referred to collectively as the “target species.”

This Rinearson Natural Area Habitat Development Plan (Habitat Development Plan) describes the habitat design for the approximate 33.156 acre proposed Project site, which is located within Meldrum Bar Park in the City of Gladstone, Oregon and in unincorporated Clackamas County (Figure 1). The restoration of riparian and aquatic habitats will be accomplished via earthwork and native vegetation restoration and management. All in-water construction work will occur within the designated in-water work window. Following construction, the site will receive 10

years of effectiveness monitoring and potential adaptive management activities, during which time site conditions will be documented and reported to the Trustee Council. Site maintenance will be performed in coordination with the Trustee Council based on monitoring results and site development. After the effectiveness monitoring and adaptive management period is complete, the Project will be protected and managed by an approved long-term land steward using a perpetual, stewardship fund. Site stewardship responsibilities, site maintenance activities, and adaptive management activities will be drafted after the long-term steward is selected in a formal site-specific long-term Stewardship Plan.

Portland Harbor Restoration Goals

The Trustee Council's overall goal is to restore, rehabilitate, replace, or acquire the equivalent of those natural resources that were potentially injured as the result of hazardous substance and oil releases from the Portland Harbor Superfund site. The Project actions will address factors that limit juvenile salmonids in the lower Willamette River, such as by providing high flow refugia, cold water tributary connectivity, floodplain access and interaction, detritus export, access to shallow water habitats, and vegetated shorelines.

The Project has been designed to specifically achieve the following:

- Move towards normative hydrology.
- Restore floodplain function.
- Reestablish floodplain and riparian plant communities.
- Improve aquatic and riparian habitat conditions.
- Improve river margin habitat (increase complexity).
- Restore habitat that provides ecological value in the landscape perspective (through connectivity, patch size, patch shape, and distance between different patches of habitat).

To support the larger goals of the *Portland Harbor Restoration Plan*, the Project will expand and enhance habitat along the Willamette active channel margin (ACM), within the lower reach of Rinearson Creek, and in adjacent riparian areas and uplands.

Primary actions that will be taken to support Project goals are the following:

- Grade Willamette River ACM, including lower Rinearson Creek, to expand ACM area and improve hydrologic connectivity.
- Modify the existing dam to mimic historical beaver dam conditions. Replace dam with a lower sill; decrease ponded area and increase depth to reduce water temperatures.

- Restore Rinearson Creek channel above and below remnant pond. Provide year-round fish access using grade control; improve channel habitat through wood installation and channel complexity.
- Restore native plant communities throughout the Project site. Remove invasive species via excavation, hand tools, or herbicide; seed excavated areas with native herbaceous species; plant native woody species; and maintain desirable vegetation where present.
- Enhance habitat throughout the Project site using wood debris and rock pile placement.
- Perform adaptive management of the site for 10 years. Remove invasive species and re-plant native species as needed; monitor for vegetation development and wildlife use.
- Protect the site from human disturbance. Limit access to defined pathways; remove garbage, repair vandalism, maintain signage, and conduct outreach.

1.1 Site Description

1.1.1 Location

The approximate 33.156-acre Project site is located in a remnant floodplain at the confluence of the Willamette River and a small tributary, Rinearson Creek, at RM 24, just downstream from the mouth of the Clackamas River (HUC# 170900120104) (Figure 1). Rinearson Creek begins at the Boardman Wetlands within the City of Gladstone (City). From the wetlands, the creek passes through ditches and pipes near Gladstone High School and the Gladstone Senior Center. It then passes through the Olson Wetlands before it enters a pipe on the east side of McLoughlin Boulevard and flows into the Willamette River floodplain at the Project site. Rinearson Creek within the site is impounded by an earthen dam upstream of the confluence with the Willamette River. Above the dam, the creek backwaters into a constructed depression, creating a 3-acre pond within the Project site. Below the dam, Rinearson Creek flows steeply into a narrow, incised channel and then joins the Willamette River through two channels, the historical channel and a channel that was constructed in 1997, referred to as the Meldrum Bar Channel. Currently, Rinearson Creek flows through Meldrum Bar Channel during Willamette River low-flow periods (e.g., during the summer months).

The Project site lies primarily within the City of Gladstone's 85.37-acre Meldrum Bar Park, in the northwest section of Clackamas County, Oregon, and within Section 19 in Township 2 South, Range 2 East (Figures 2 and 10). In addition, the site includes portions of the Robinwood Riviere Property Owners Association (RRPOA) common area, a residential parcel, and channel areas below the Ordinary High Water Mark (OHWM).

The site is bordered by high density residential development to the north and east, developed city park to the south, and the Willamette River to the west. The majority of the site is currently zoned open space under the City of Gladstone; other districts administered by the City under Gladstone Municipal Code (GMC; City of Gladstone 2014) within the Project site include Habitat Conservation Areas (HCA), Water Quality Resource Area (WQ), Greenway Conditional Use District (GW) and the Flood Management Districts (FM). The City of Gladstone has formally adopted a natural area designation for their property within the Project site, referred to as Rinearson Natural Area. The natural area is to be managed with the goal of benefiting fish and wildlife populations and any human activities within the site are to be carefully controlled (Peter Boyce, City of Gladstone Administrator, pers. comm. 2013).

Near and long-term protections for the site will exist under ordinances related to the Open Space Zoning (OS; Chapter 17.26) as defined in the City of Gladstone's Comprehensive Plan, and under the Habitat Conservation Area District (GMC Chapter 17.25), Water Quality Resource Area (GMC Chapter 17.27), Greenway Conditional Use District (GMC Chapter 17.28) and the Flood Management Districts (GMC Chapter 17.29) within the GMC. Additionally, the City of Gladstone has designated the site as a natural area, which is a designation for a property (not a district overlay) that required approval by the City Council.

A small portion of the site is within the jurisdiction of Clackamas County, and would be subject to similar rules and regulations in place by the City of Gladstone.

The various site protection mechanisms and zoning uses, with the relevant overlay districts, are described in Appendix G-13: Jurisdictional Authority for Long-Term Protection and Use. The overlay districts at Rinearson Natural Area are compatible with the proposed uses and long term management goals of the Habitat Development Plan.

1.1.2 Site History

Information on historical site conditions was obtained from historical aerial photographs obtained from the University of Oregon and from data from the Bureau of Land Management (BLM) General Land Office (GLO) vegetation cover data recorded between 1859 and 1939. These sources represent the available information on pre-settlement vegetation conditions (Tobalske 2002). Information from local landowners and agency representatives was also reviewed in order to piece together the site's history. Historical aeriels and GLO vegetation data depicting land use, site modification, and vegetation changes are in Appendix A.

Pre-settlement vegetation mapping of the Project site, as indicated by the GLO data, shows the area largely covered by closed-canopy, deciduous riparian and wetland forest. Species included Oregon ash (*Fraxinus latifolia*), red alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*), black

cottonwood (*Populus trichocarpa*), Oregon white oak (*Quercus garryana*), and dogwood (*Cornus sericea*). Conifers were also likely present in small quantities. This community once existed as part of an extensive network along the Willamette and Clackamas River floodplains and, presumably, provided structure and shade for off-channel habitat for salmonids, as well as providing for the habitat needs of other fish, birds, and wildlife.

In addition to the historical deciduous floodplain forest, closed-canopy upland forest is mapped in a small area along the northern site boundary (Appendix A). It was characterized as Douglas fir (*Pseudotsuga menziesii*)–Oregon white oak forest with a “brushy understory of hazelnut (*Corylus* sp.), young oaks (*Quercus* sp.), briars, and occasional willows” (*Salix* spp.) (Tobalske 2002). This and other upland forest communities covered the river terraces bordering the floodplains and would have created a mosaic of early-, mid-, and late-seral stands featuring complex and varied structures that provided critical habitat for wildlife species now considered threatened or endangered.

The Project site’s hydrology, water quality, and habitat have been largely modified since the early 1900s as land use changed in the surrounding area. Widespread forestry and agriculture shifted to urbanization in the mid-20th century, culminating in the Project site’s current use as a constructed wetland mitigation site and urban greenspace.

Before the construction of the Willamette River Basin flood control dams in the 1950s and 1960s, the Willamette River would have been subject to highly dynamic fluvial processes including channel migration and periodic scouring of the floodplain surface and gravel bars. After dam construction upriver on the Willamette, the frequency and magnitude of the river’s flood events were altered: dramatically reducing the river’s channel shifts, limiting floodplain scour and associated vegetation patterns, and limiting the supply of gravels and other substrate to the lower Willamette River. Commercial gravel extraction from gravel bars and the river channel has also impacted the river’s function.

Site Alterations Timeline

The timeline below details alterations occurring at the Project site, beginning in 1936 through the present date. Historical aerial photographs are included in Appendix A.

- **1936–1950s:** Agriculture dominated the local landscape, resulting in the clearing of forestland, channelization of streams, and diking and draining of wetlands. A 1936 aerial photo depicts the Project site surrounded by farm fields, though it appears that Rinearson Creek was maintained in its natural channel with a riparian buffer of shrub vegetation. The topographical depression within the footprint of the current pond is noticeable. A road crossing over the creek is visible at the east end of the Project site. In a

1944 aerial photo, another crossing is visible at the west end very near the current dam site. And in a 1948 aerial photo, it is apparent that the creek had been straightened and channelized throughout most of the Project site, likely to provide better drainage for the farm fields, and riparian vegetation had also been largely removed.

- **1950s–1960s:** The 1956 aerial photo shows that the west end stream crossing had been removed and riparian vegetation was regenerating. By 1961, the Project site had recovered much of its shrub and forest canopy; however, the surrounding area was increasing in development density. In the late 1950s, with the construction of the Carolina Biological Supply Company approximately 1,500 feet upstream of the Project site, the segment of Rinearson Creek adjacent to the construction site was channelized, stripped of riparian vegetation, and relocated from its original channel bed to make way for the development (SRI/SHAPIRO 1994). In 1960–1961, three human-made ponds were excavated at the supply company site that drained into the creek. These ponds were used to cultivate exotic plant species such as Brazilian waterweed (*Myriophyllum brasiliense*) for sale in the aquarium industry (SRI/SHAPIRO 1994).
- **1970s–1980s:** By 1970, the area surrounding the Project site was rapidly urbanizing, and evidence of vegetation clearing and soil disturbance in the uplands at the Project site is visible in the aerial photos. The early- to mid-1970s marked the construction of the current RRPOA residential development (the RRPOA was established in 1973). The City of Gladstone was established in 1978. The Project site remained a greenspace amid the urban development, the northern portion owned by the RRPOA and the southern portion eventually incorporated into Meldrum Bar Park (which became visible in the aerial series starting in 1990). Residents of the RRPOA report the presence of beaver dams at the Project site, causing water to pond and inundate the site throughout the year. A 1980 aerial depicts such an impoundment located near the center of the current pond. Forest cover became established in the riparian areas and upland south of Rinearson Creek by this year.
- **1990s–2000:** The beaver dam and pond were still present, as visible in a 1990 aerial photo. The hardwood floodplain forest was maturing. Residents report sightings of many species of birds, fish, amphibians, and other wildlife at this time, which are corroborated by Oregon Department of Fish and Wildlife (ODFW) personnel Laurie Allen, who began conducting fish and wildlife surveys on the site on March 16, 1991 (Laurie Allen pers. comm. 1991). By accounts of local residents, the beaver dams were noted to have washed away in the early 1990s (this is confirmed by a 1994 aerial photo), and water levels at the Project site dropped drastically. After the water levels

dropped, the creek channel was exposed as incised and meandering through an approximately 150-foot-wide depression. The creek and surrounding area continued to be subjected to inundation by floodwaters from the Willamette, though it is estimated that, due to the entrenched nature of the creek channel, it rarely overtopped its own banks (SRI/SHAPIRO 1994). Reed canarygrass (*Phalaris arundinacea*) and Himalayan blackberry (*Rubus armenicus*) quickly established and spread throughout the site wherever there were gaps in the forest canopy. Allen and nearby residents noted a distinct loss in fish and wildlife species abundance and diversity (SRI/SHAPIRO 1994).

In 1994, the City-owned portion of the Project site became the focus of a compensatory mitigation plan to offset stream and wetland impacts resulting from the development of a Toyota showroom by Thomason Auto Group at the site of the former Carolina Biological Supply Company. Impacts included re-routing 200 feet of Rinearson Creek into underground pipes beneath the development site and filling areas of the wetland. The mitigation plan (detailed in the *Wetland Delineation and Mitigation Plan for a Proposed Automobile Dealership on McLoughlin Boulevard in Gladstone, Oregon*; SRI/SHAPIRO 1994) involved the construction of an earthen dam on the creek to re-create the effects of the beaver dams, including inundation of the site to control reed canarygrass and other invasive species and enhancement of wetland habitat for fish and wildlife. Associated plan elements included the excavation of a borrow pit upstream of the mitigation site and wetland island creation, planting of native vegetation, and construction of an observation deck overlooking the wetland. The mitigation plan, including subsequent amendments made to the dam construction and relocation to the existing location, was approved by the Army Corps of Engineers (USACE), the Department of State Lands (DSL), the RRPOA, and other stakeholders. Changes in the dam placement resulted in an additional 0.2 acres of land being deeded to the City by the RRPOA and doubling of the initially proposed ponded area.

In 1997–1998, the amended mitigation plan was implemented. The dam was constructed of approximately 2,100 cubic yards of native material excavated from a borrow pit upstream of the Project site. The dam is approximately 225 feet long, 13 feet high, and 6 feet wide and is buttressed with drainage rock and class-100 rock riprap at the downstream toe. It was designed to create a target pool elevation of 19 feet above mean sea level (MSL; 22.48 feet above the North American Vertical Datum of 1988

[NAVD88¹]) with a capacity of 5.7 acre-feet, flooding the Project site to a depth of 4 feet. An emergency overflow spillway was constructed and armored with reno mattress at an overflow elevation of approximately 22.9 feet NAVD88. The outlet structure controls the water level of the pond via a grated concrete sill set at approximate elevation 21.5 feet NAVD88.). An 8-inch waterman C-10 canal gate valve regulates the water level in the pond. It conducts flow into an 8-inch inlet pipe, through a 60-inch diameter inlet structure, and discharges out through a 36-inch diameter concrete outlet pipe. A 1998 aerial photo depicts site conditions post-construction. The site was not planted, and other project elements, such as pond depth management, were not fully implemented. DSL has indicated that since they did not receive any documentation that the site was constructed, and never received any documentation that the site was monitored per the permit conditions, they consider it failed mitigation and released it from monitoring in 2012 (Anita Huffman, pers. comm., 2015). Both USACE and DSL have indicated they support the use of the site for restoration and do not consider the former mitigation use to be in conflict with the restoration.

Two wooden-plank observation decks were built south of the pond and wetland in an area dominated by Himalayan blackberry. Hardpack footpaths were constructed for access from the parking lot south of the site.

In 1998, a resident of the RRPOA petitioned USACE to dredge a channel from Rinearson Creek downstream of the dam, south through the floodplain, to the Willamette River at a point approximately 1,000 feet upstream from the natural mouth of Rinearson Creek for the purposes of improving private boating access to the Willamette River. The request was approved, and the channel (Meldrum Bar Channel) was excavated, rerouting the natural flow of Rinearson Creek and creating a floodplain island along the west side of the Project site. The Meldrum Bar Channel became the low-water flow path for Rinearson Creek after its construction due to sediment accumulation at the historical mouth of Rinearson Creek.

- **2000–Present:** Several non-profit habitat restoration and community-based volunteer organizations host events to remove weeds, plant trees, and manage invasive wildlife at the Project site and upstream along Rinearson Creek. Considerable vegetation management activities have taken place in the southern portion of the Project site where

¹ All elevations in NAVD88 unless otherwise noted.

large quantities of English ivy (*Hedera helix*) have been removed, and native trees and shrubs have been planted. Rinearson Creek continues to flow through the Meldrum Bar Channel, and vegetation has become established at the mouth of the historical channel.

1.1.3 Ownership

The Project site includes areas within the City of Gladstone and Clackamas County. Table 1 below identifies the parcel number and owner of each parcel (or portion thereof) within the project footprint (Figure 10).

Table 1. Land Ownership

Tax Lot ID	Parcel Number	Owner
NA	Rinearson Creek historical outlet	NA ²
101	00526354	City of Gladstone
102	00526363	Cornell Saftencu
113	05019648	City of Gladstone
143	01606925	Robinwood Riviere Property Owners Association
191	05000035	City of Gladstone
200	00526256	City of Gladstone
290	00526265	City of Gladstone
300	00526274	City of Gladstone
1702	00526924	City of Gladstone

Landowner outreach meetings have been conducted regularly throughout the design and planning process and landowner input has been incorporated into the final project design. The City, the RRPOA and Mr. Saftencu support the project’s goals and objectives. All of the landowners have consented to the restoration actions and future stewardship activities on their properties and a legal agreement between each property owner and Rinearson Natural Area, LLC, is in place. Copies of these agreements have been provided to the Trustee Council. DSL has confirmed that they do not have an ownership interest within the project footprint.

1.1.4 Adjacent Land Uses

Most of the Project site lies within the City’s Meldrum Bar Park (Figures 1 and 2), which is used by both local and regional residents. In addition to the natural area, Meldrum Bar Park includes a boat launch area and parking lot adjacent to the site, a gravel bar adjacent to the site which is used for fishing, several ball fields, general open space, and facilities for a variety of other recreational uses.

Other land uses surrounding the site are primarily residential, with several residential areas abutting the Project site.

1.2 Existing Conditions

² According to county records, the historical outlet has no tax lot ID and no ownership associated with it. It is classified as “water”.

1.2.1 Hydrology

The site is subject to three distinct hydrologic regimes: Willamette River stage and backwater, Willamette River tidal cycles, and Rinearson Creek flows.

The entire Project site is located within the 100-year floodplain of the Willamette River. The area above the existing dam is inundated one or more times annually on average, during high winter flows by Willamette River backwater, with water surface elevations above approximately 21.5 feet (Figure 3).

Areas of the Project site located downstream from and below the dam are directly connected to the Willamette River and are thus subject to frequent inundation from river backwater.

The Willamette River experiences tidal influence upstream to Willamette Falls in Oregon City, approximately three miles upstream from the Project site. Tidal influence is greatest during periods of low river stage, with tidal effects waning as river stage rises. During seasonal low flow periods, tidal fluctuation ranges up to three feet. The portion of Rinearson Creek from the existing dam downstream to its confluence with the Willamette River is very low gradient and subject to the full range of tidal cycles.

Rinearson Creek hydrology is substantially driven by stormwater runoff from the upstream developed watershed, most of which lies within the City of Gladstone. The City's recently completed update to its Stormwater Master Plan identified portions of the upstream piped conveyance system that have inadequate capacity (Jim Harper, pers. comm. 2014). The resultant flooding in the upstream basin effectively reduces peak flows into Rinearson Creek above a 2-year return frequency event through detention, retention, and diversion. The City is planning upgrades to the conveyance system, but it is expected that flows into Rinearson Creek will remain largely unchanged since the plans include construction of a formal diversion structure to send those higher flows directly into the adjacent Clackamas River basin.

Most of the watershed area is within the City of Gladstone. A number of relatively small sub-basins also contribute runoff to the creek and pond from the north and south via piped outfalls (Figure 2). One sub-basin located in the City of Gladstone outfalls to the Project area southeast of the pond. This outfall discharges to a relatively large natural topographic depression north of Meldrum Bar Park Road and west of an adjacent mobile home park.

Two sub-basins within the Oak Lodge Sanitary District (OLSD) service area collect runoff from the residential area bordering the north side of the pond and outfall directly into the pond. The western of these two pond outfalls discharges onto the steep (2H:1V) slope near the base of the RRPOA access staircase, approximately 15 to 20 feet from the edge of the pond. The eastern of these two pond outfalls discharges onto a similarly steep slope at the approximate midpoint of

the pond. Runoff from this outfall travels through an incised open channel across a topographic bench for approximately 100 feet before entering the pond. One other minor OLSD outfall discharges into the area north of the historical creek downstream of the dam. Flow from this outfall is expected to be very minor since it collects flow from only two catch basins in the residential road uphill from the Project site. The Project is proposing to construct outfall energy dissipaters and scour protection channels for the two outfalls draining to the pond to prevent further incision from adjacent pond grading activities.

The USACE's OHWM estimate for the site (at RM 24.2) is 29.09 feet NAVD88 (25.6 National Geodetic Vertical Datum of 1929 [NGVD29]). However, analysis of river stage data performance specifically for this project by Waterways Consulting suggests that an elevation of 24 feet NAVD88 be used for OHWM at the Project site based on analysis of flow data from gauges upstream and downstream of the Project site (Waterways Consulting 2014). The project-specific OHWM elevation estimate closely matches the vegetation indicators observed in the field in areas above the dam and has been adopted by the Trustee Council for the delineation of onsite aquatic habitats.

1.2.2 Water Quality

The Rinearson Creek Watershed consists largely of built-out residential and commercial land uses. It originates from cold springs within the City of Gladstone, and numerous springs add cold water flow to the creek within the Project site. Throughout its watershed, the creek travels through wetland areas and channelized segments, and it is also contained in a pipe for approximately one-third of its length, before reaching the Project site.

Water quality conditions in Rinearson Creek and the pond are affected by stormwater runoff from these developed areas and the pollutants generated by the associated impervious surfaces. Illicit discharges to the storm system are also possible but have not been researched. Water quality conditions may also be affected by high Willamette River flows which backwater over the dam and flood the pond one or more times annually.

Sediment testing in the pond indicates minor contaminant impacts (Appendix E). It is unclear whether the source of these contaminants is the upstream creek watershed or high Willamette River backwater events. Sediment will be managed during site construction pursuant to the Portland Sediment Evaluation Team (PSET) sediment evaluation report (Appendix E). See Section 1.2.3 for further discussion.

Water temperatures in the creek before entering the pond are typical of spring-fed systems. Figure 4 illustrates water temperature patterns during mid-August to mid-September 2009, a period when low stream flows and high air temperatures usually result in the highest annual

water temperatures. The figure compares conditions in the pond with an area upstream in a reference reach (labeled as “plank bridge” and “below weir”) where temperatures are maintained well below the temperature standards of 64°F due to an established tree canopy.

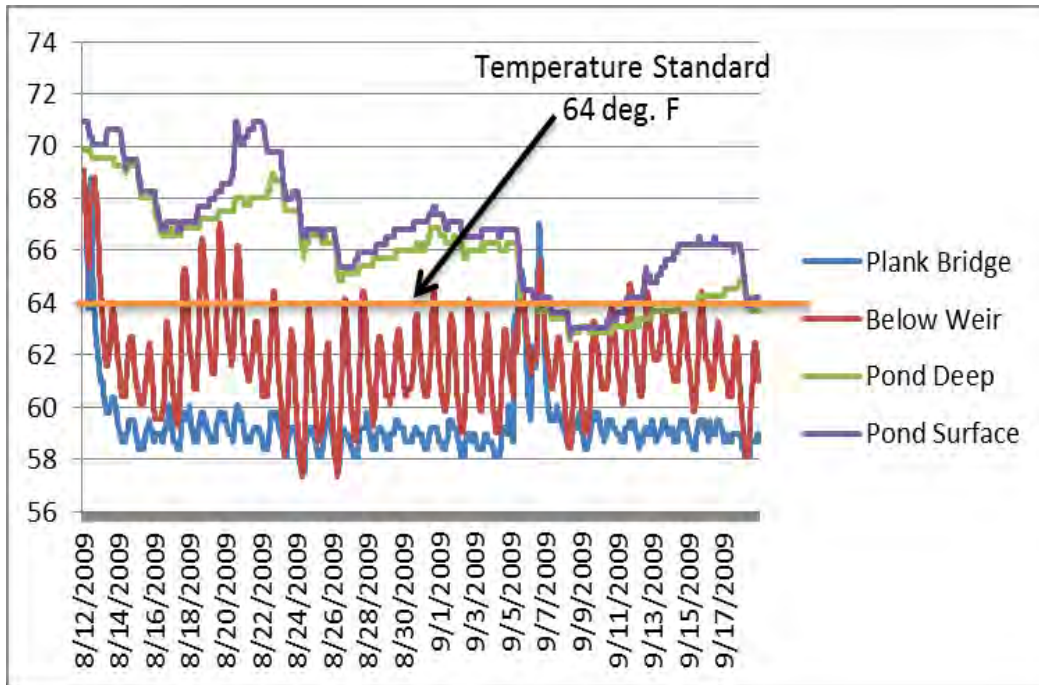


Figure 4. Onsite Water Temperatures

Source: Willamette River Keeper 2009

Solar inputs into the pond elevate water temperatures during summer low-flow periods. The springs described above contribute cool surface and subsurface water to the creek and pond, which probably helps to moderate any thermal loads.

Summer thunderstorms can also lead to rapid temperature increases in the creek when rain falls on hot surfaces like roads, parking lots, and roofs and drains to the creek. This is shown in Figure 4 as large episodic peaks above 64°F. The figure shows a rapid decrease in water temperature around August 13, 2009, and this corresponds to the diminishing effects of runoff from a summer thunderstorm in the days prior.

1.2.3 Soils and Sediment

A geotechnical investigation identified that site soils include fill material, alluvium ranging from silt to sand and gravel, fine-grained flood deposits, and topsoil. Fill material is largely related to

the residential development on the north side of the pond, dam construction, and a relic road bed that borders the upstream end of the pond.

Up to a few feet of sediment has accumulated in the pond behind the dam since the dam was constructed. The sediment is largely composed of fine-grained material with a small fraction of sand. Laboratory testing of sediments from the lower area of the pond identified low levels of certain pollutants. The PSET determined that the sediment contamination levels are below the 2015 Pacific Northwest Sediment Evaluation Framework (SEF) freshwater screening levels (SLs) and therefore suitable for unconfined placement in the floodplain (Appendix E).

1.2.4 Existing Habitat

Current habitat onsite is degraded and reflects the site management and landscape modifications as described in the *Site History* section. Current habitat condition was assessed as part of the Habitat Equivalency Analysis (HEA) to quantify the habitat benefits and habitat function uplift that could be generated by the Project. These are described below and shown on Figure 5.

Active Channel Margin

The active channel margin (ACM) is the area along the river's edge and along the shores of the pond and Rinearson Creek. It is found between the OHWM and the ordinary low water mark (OLWM). Research in the lower Willamette River has indicated that salmonids use these nearshore habitats more than offshore waters, particularly when there is a lower bank slope devoid of riprap or walls and with vegetation (Friesen et al. 2005). Existing ACM habitats at the Project site occupy approximately 7.67 acres total. They are heavily degraded due to the presence of the dam blocking access to fish, steep slopes (>11%), and the presence of invasive vegetation.

Riparian Habitat

Riparian habitat is considered to be any area situated landward within 200 feet of the OHWM. This is deemed to be important habitat in the Portland Harbor restoration area when fully functioning. Riparian habitat functions include removal of harmful nutrients and sediment from runoff, stabilization of streambeds, and reduction of channel erosion. Vegetated riparian habitat also traps and removes contaminants, provides storage of flood waters, maintains habitat for fish and other aquatic species, and recruits wood and other debris during high flow events. Existing riparian habitat at the Project site totals approximately 15.93 acres (all riparian habitats combined). The habitat value is assessed by the HEA model based on whether the habitat area is within or outside the historical floodplain and by the type of vegetation (invasive

or native, forested or not). The Project site includes several discrete riparian habitat areas, occurring both inside and outside the historical floodplain, and including both invasive and largely native, forested habitat. Most of the riparian habitat at the Project site is considered to be nonfunctioning due to the lack of overstory and domination by invasive species.

Off-Channel Habitats

Off-channel habitat for the HEA model includes side channels, sloughs, lagoons, tributary confluence areas, embayment's/coves and alcoves. The off-channel habitat at the Project site includes the Meldrum Bar Channel outlet that was constructed in 1998 and a portion of the historical outlet of Rinearson Creek, both of which provide side channel habitat, and the existing impoundment, which is considered to be embayment/cove with tributary habitat. Off-channel habitat is important to provide juvenile salmonids refugia from velocities associated with high flow events; this habitat is lacking in the lower Willamette River. Off-channel habitats are also important refuge areas for the other target species in the Portland Harbor restoration project area such as mink, otter, and migratory birds (NOAA 2012).

The side channel habitat at the Project site (0.58 acres) is degraded and has a reduced habitat value due to impeded natural hydrological processes as a result of the dam and invasive vegetation along the banks. The constructed banks in this area are too steep and cobbly in some areas to be conducive to vegetation growth. The embayment/cove with tributary habitat at the Project site (3.38 acres) is disconnected from the Willamette River at all flows except when the river overtops the spillway (at greater than approximately 22.88 feet NAVD88 at Meldrum Bar) and backwaters into the pond. The pond is in a degraded state and provides the lowest habitat value under the HEA model due to the blocked fish passage, warm summer temperatures, and dominance of invasive species.

Upland Habitat

Uplands are those areas that extend further landward than riparian habitat (more than 200 feet from the OHWM). These areas are also assessed by the HEA model based on whether or not they are found within or outside the historical floodplain and by the type of vegetation (invasive or native, forested or not). When an overstory is present, upland areas are important for providing nesting and perching sites for the avian target species. Uplands at the Project site occupy approximately 5.27 (combined) acres and are mostly forested with a mature native overstory, with predominantly invasive understory.

1.2.5 Vegetation Types and Condition

The project site is primarily vegetated with upland and riparian forest with areas of shrub thicket, forested wetland, and emergent wetland (Figure 5). Forest stands are mid-seral to mature with open-to-closed canopies composed of native tree species. Understories are generally well developed and dense and feature widespread presence of invasive species; breaks in forest canopy are dominated by invasive species. Primary vegetation communities include red alder forest, black cottonwood forest, black cottonwood–Himalayan blackberry forest, Douglas fir–bigleaf maple forest, Oregon ash–bigleaf maple forest, Himalayan blackberry–reed canarygrass shrub thicket, Oregon ash–Pacific willow (*Salix lasiandra*) palustrine forested wetland, mixed willow palustrine–scrub-shrub wetland, reed canarygrass–yellow flag iris (*Iris pseudacorus*) palustrine emergent wetland, and non-persistent riverine emergent wetland.

Invasive Species

Widespread presence of invasive vegetation species is a significant issue on the site: forested areas are invaded by English ivy, English holly (*Ilex aquifolium*), cherry laurel (*Prunus laurocerasus*), false brome (*Brachypodium sylvaticum*), and herb-Robert (*Geranium robertianum*). Breaks in forest canopy are dominated extensively by Himalayan blackberry, while the clearing around the dam features Canada thistle (*Cirsium arvense*), St John’s wort (*Hypericum perforatum*), and tansy ragwort (*Senecio jacobaea*). Wetland areas feature abundant reed canarygrass, purple loosestrife (*Lythrum salicaria*), and yellow flag iris. Many vegetation communities throughout the site include moderate-to-high field bindweed (*Convolvulus arvensis*) cover.

1.2.6 Wildlife Use

As described above, the Project site contains ACM, off-channel habitat, and both floodplain and non-floodplain riparian and upland forest. Habitat quality on the site, in general, is degraded due to abundant invasive species cover and hydrological disconnection. Areas of dense canopy and presence of mature black cottonwoods and sparse Douglas fir trees in the forested areas provide roosting and nesting sites for some large raptors, and a dense shrub layer and ample large woody debris (LWD) provides cover, foraging, and nesting sites for other birds and wildlife. However, predominantly invasive forest understories limit habitat quality, and areas with low or no forest overstory feature extensive Himalayan blackberry thickets that do not provide adequate habitat to support a diversity of wildlife uses. The assemblage of bird species observed onsite is common to urbanized, degraded, and Himalayan blackberry–dominated habitats. The site is dominated by song sparrows (*Melospiza melodia*), spotted towhees (*Pipilo maculatus*), black-capped chickadees (*Poecile atricapillus*), American robins (*Turdus migratorius*), and

American crows (*Corvus brachyrhynchos*). Urban-adapted mammals such as nutria (*Myocastor coypus*), opossum (*Didelphis virginiana*), raccoons (*Procyon lotor*), and coyotes (*Canis latrans*) are also common in the upland and riparian forest areas and have been observed during the baseline monitoring. The pond, historical channel, and Meldrum Bar Channel provide some shoreline areas for wading birds and mammals to hunt for fish; however, the abundance of invasive vegetation, removal of native willows, and steep bank slopes, particularly along the Meldrum Bar Channel, impact available cover, nesting, and foraging areas. A lack of in-stream wood and channel complexity also reduces in-stream foraging area and prey availability for piscivorous wildlife. Waterfowl such as Canada geese (*Branta canadensis*), mallards (*Anas platyrhynchos*), and wood ducks (*Aix sponsa*) commonly use the pond, but its disconnection from the Willamette River mutes dynamic hydrologic and fluvial processes necessary to create critical habitat variability and complexity essential for high quality fish and wildlife habitat. In addition, the lack of fish passage into the pond reduces prey availability for piscivorous wildlife.

Target wildlife species observed at the site include mink, bald eagle, spotted sandpiper, and osprey. Additional reptile, bird, and mammal species observed at the site during site surveys are listed in Appendix B.

1.2.7 Fish Use

Several cutthroat trout (*Oncorhynchus clarkii*) and one juvenile coho salmon were observed in Rinearson Creek before construction of the dam (ODFW 1994). A survey of the pond in 2010 found many non-native pumpkinseed sunfish (*Lepomis gibbosus*) as well as carp (*Cyprinus* spp.) (Steve Kennett, SOLV, pers. comm. 2010). The same survey electrofished below the dam and found a number of non-native fish, including bluegill (*Lepomis macrochirus*) and pumpkinseed sunfish, and the following native fish: one three-spined stickleback (*Gasterosteus aculeatus*), one sculpin (*Cottus* spp.), and three juvenile coho salmon. Baseline surveys for Pacific lamprey were completed by U.S. Fish and Wildlife Service (USFWS) in May 2015. No evidence of lamprey were found in the pond, but lamprey were found downstream of the impoundment. Ammocoetes may rear within the bottom sediments of the river and channel within the Project site. Clackamas County Vector Control has also stocked the pond with non-native western mosquitofish (*Gambusia affinis*) to control mosquitos. According to ODFW guidance, mosquitofish cannot be stocked in any waterbody connected to a river or other tributaries (ODFW 2009). Clackamas County has been notified that with the implementation of the Project, the mosquitofish will be removed and future stocking of the fish cannot take place.

During periods when the Willamette River is at sufficient levels to backwater over the dam and extend into the ponded area, fish, including juvenile Chinook and other salmonids, can enter the ponded area. When the water level recedes, these fish can be trapped within the ponded area,

where they are most likely subject to predation by birds and other wildlife and mortality from high water temperatures. While there are no records of juvenile salmonids in the pond, coho salmon were observed in Rinearson Creek before dam construction, and juvenile salmonids are present in the Willamette River and associated floodplain for much of the year when the Willamette River is at levels that overtop the dam. In a study of salmonid use in the lower Willamette River, over 87% were Chinook salmon, 9% were coho salmon, and 3% were steelhead (Friesen et al. 2005). Chinook salmon juveniles exhibited a bimodal distribution in length indicating the presence of both subyearlings and yearlings. Although at lower abundance, coho salmon juveniles also exhibited this bimodal distribution of yearlings and subyearlings. The study's key finding is that the lower Willamette River is important for juvenile salmon and steelhead feeding and high water refuge, in addition to its being a migration corridor. The presence of naturally-spawned Chinook salmon from November through July, as well as significant evidence of fish growth, also indicates that the lower Willamette River and associated floodplain areas, including the Project site, are important for the survival and rearing of juvenile salmonids.

1.2.8 Cultural Resources

Willamette Cultural Resources Associates (WillametteCRA) produced a cultural resources survey and report for the Project site (Willamette Cultural Resources Associates, Ltd 2014). To determine if previous archaeological studies or archaeological sites occur in the project vicinity, WillametteCRA conducted the cultural resources survey on May 20–21, 2014, under State of Oregon Archaeological Excavation Permit No. AP-1891. WillametteCRA surveyed the Project site and excavated 50 shovel probes; no cultural resources were identified. WillametteCRA staff also reviewed records on file with the State Historic Preservation Office (SHPO) and at the WillametteCRA offices. No previously identified archaeological resources exist within the Project site, but five archaeological sites and one isolate are known within a 1.6-kilometer radius. Based on their findings, it is Willamette CRA's professional opinion that no significant archaeological or historical resources would be affected by the proposed Project.

According to the cultural report, the lower Willamette River, from its mouth to Willamette Falls, including the Project site, lies in the traditional homeland of the Chinookan peoples. The Clackamas people, a sub-group of the Chinookans, lived primarily on the Clackamas River, at Willamette Falls just upstream of the Project area, and along the lower Willamette River.

Historical records offer little evidence for the presence of either Native peoples or European Americans in the immediate vicinity of the Project site. The 1852 GLO plat shows an Indian village and Indian graves on the north bank of the Clackamas River about a mile to the east. Information provided by a Clackamas Indian, John Wacheno, in the early 1930s included a

reference to a location near Gladstone (*qauwuha 'ipat*) where some Clackamas Indians would fish for dog and silver salmon (chum and coho salmon, respectively).

During planning discussions with the City of Gladstone about the placement of fill material in the upper portions of Meldrum Bar Park, City staff noted that cultural artifacts had been found near the area of the proposed fill placement. The cultural artifacts were uncovered during construction of a water pipeline in the summer of 2015. A part of the cultural site had been partially covered by gravel from use for the pipeline construction staging area. The SHPO determined that there were no adverse effects from the construction staging activities, based on previous archaeological work at that location (John O. Pouley, SHPO, pers. comm. 2015). After consulting with the SHPO about placing Rinearson Natural Area fill material, the Assistant State Archaeologist determined that placement of fill within a portion of the known cultural resources site would not adversely affect the site (John O. Pouley, SHPO, pers. comm. 2015).

Should unanticipated archaeological or historical resources be encountered during project construction, all ground-disturbing activity in the vicinity of the find will be halted and the USACE and the SHPO will be notified immediately. In the event that evidence of human skeletal remains is encountered during construction, all ground-disturbing activity in the vicinity of the discovery will be halted immediately, efforts will be taken to protect such evidence in place, and the USACE, the SHPO, Oregon State Police, the Legislative Commission on Indian Services, appropriate Tribes, and the Clackamas County Medical Examiner will be promptly notified to ensure compliance with state and federal laws.

1.3 Target Species

The *Portland Harbor Restoration Plan* identifies several key fish and wildlife species to represent feeding guilds most likely exposed to contaminants in the Portland Harbor. Restoration projects developed under the Portland Harbor NRDA process must meet certain habitat criteria conducive to supporting the life histories of the selected species. The selected species and the guilds they represent include the following:

- **Fish (aquatic feeders):** Pacific salmon, Pacific lamprey, and white sturgeon
- **Piscivorous birds:** bald eagle and osprey
- **Piscivorous mammals:** mink and river otter
- **Sediment-probing insectivores:** spotted sandpiper

1.3.1 Salmonids

Chinook Salmon: Lower Columbia River and Upper Willamette River ESUs

The LCR Chinook salmon ESU was listed as threatened by the National Marine Fisheries Service (NMFS) on March 24, 1999. The range of the LCR Chinook salmon includes the Columbia River and its tributaries including the Willamette River to Willamette Falls and the Clackamas River. Adult and juvenile LCR Chinook from the Clackamas River population are the most likely part of the population to be present in the Project site or the vicinity (McElhany et al. 2007).

Both adult and juvenile LCR Chinook are present in the lower Willamette River. Adult use of the Willamette River in the vicinity of the Project site is primarily for migration to spawning habitats in the Clackamas River and the upper Willamette Basin. Adult presence of LCR Chinook within the lower Willamette River would generally occur from mid-January through late June, peaking mid-March through late May. In a study of salmonid use in the lower Willamette River, juvenile Chinook accounted for the majority (87%) of salmonids sampled. Juvenile use of the Willamette River and floodplain for rearing and downstream migration peaks mid-March through late July (Friesen et al. 2005).

The UWR Chinook salmon ESU was listed as threatened by NMFS on March 24, 1999. The ESU includes all naturally spawned populations of spring-run Chinook salmon in the upper Willamette River, and its tributaries, above Willamette Falls. The UWR Chinook ESU adult and juvenile migration and rearing timing patterns overlap with the LCR Chinook migration patterns (McElhany et al. 2007).

Coho Salmon: Lower Columbia River ESU

The LCR coho salmon ESU includes 25 populations that historically existed in the Columbia River Basin from the Hood River downstream, including the Willamette River and the Clackamas River (McElhany et al. 2007). The ESU boundaries do not extend into the upper Willamette portion of the basin because Willamette Falls is a natural barrier to fall migrating salmonids.

The juvenile coho from the Clackamas River population would be the most likely population found in the Project site. The population in the Clackamas is the only population in Oregon's portion of the ESU that is most likely in the viable category, and thus the risk for extinction of coho in Oregon remains high (McElhany et al. 2007). In a study of salmonid use in the lower Willamette River, 9% of the sampled fish consisted of coho salmon (Friesen et al. 2005). Adult LCR coho salmon can be found migrating to spawning areas from June through February and spawning from September through March. Coho begin their migration downstream from April through August.

Out-migrating coho smolts likely use the Project site for migration and rearing in suitable nearshore habitats.

Steelhead: Lower Columbia River DPS

The LCR steelhead DPS was listed as threatened by NMFS on March 19, 1998, and reaffirmed on January 5, 2006. This DPS includes all naturally spawned steelhead populations below natural and human-made impassable barriers in streams and tributaries to the Columbia River between the Cowlitz and Wind Rivers in Washington and the Willamette and Hood Rivers in Oregon (McElhany et al. 2007). Steelhead populations in the upper Willamette River Basin above Willamette Falls are excluded. This DPS includes the Clackamas River population, which is the most likely population to utilize habitats within the Project site (McElhany et al. 2007).

Adult LCR steelhead enter the Willamette River from January to June, peaking from mid-January to late April. Juvenile steelhead rear in the Willamette River throughout the year. Juvenile downstream migration peaks from March to mid-August. In a study of salmonid use in the lower Willamette River, 3% of the fish sampled were steelhead (Friesen et al. 2005).

Steelhead: Upper Willamette River DPS

The UWR steelhead DPS was listed as threatened by NMFS on March 25, 1999. NMFS issued results of a five-year review on Aug. 15, 2011 (Federal Register 2011), and concluded that this species should remain listed as threatened. This DPS includes all naturally spawned anadromous steelhead populations below natural and human-made impassable barriers in the Willamette River and its tributaries upstream from Willamette Falls up to, and including, the Calapooia River (McElhany et al. 2007).

The UWR steelhead adult and juvenile migration and rearing timing patterns overlap with the LCR steelhead patterns.

Aquatic habitat types currently present within the Project site include Rinearson Creek upstream of the pond, the open water areas contained within the pond, the short, steep channel below the dam, the Meldrum Bar Channel and historical channels, and the Willamette River floodplain (Figure 2 and Figure 5). All of these aquatic habitats, and associated fish use, shift over time and across the site from changing water levels, which are influenced by river levels, tidal cycles, and Rinearson Creek flow patterns.

Above the Project site and pond, Rinearson Creek extends several hundred yards upstream to a weir and a waterfall that is a barrier to upstream fish movement. Below the waterfall, the channel enters the floodplain of the Willamette River where large flood events can inundate the creek and floodplain areas up to the waterfall. The stream through this section is relatively

small, with a bankfull channel width of approximately 10 feet, and a low gradient of less than 2%. While there is a lack of complexity from large wood or other structural elements in the channel, there are scour pools and undercut banks in this section, and the water temperatures are appropriate to support trout and other native fish. The riparian area, which includes alder and some coniferous trees, provides good cover and shade.

The impoundment created by the construction of the dam in 1997 inundated Rinearson Creek and changed fish habitat from stream channel to open water pond. The pond includes significant shallow areas, little canopy cover, and little habitat complexity. Due to the open water and shallow depths, the pond's water temperatures are significantly higher than those of Rinearson Creek. The dam and the steep channel below the dam create a barrier to fish movement between Rinearson Creek and the Willamette River. Below the dam spillway, the creek flows through a narrow, steep, and deeply incised channel. During periods when the Willamette River is not backwatering in the channel below the dam, Rinearson Creek flows through Meldrum Bar Channel to the river. The stream within Meldrum Bar Channel is characterized by a series of shallow riffles confined by steep banks.

The Meldrum Bar Channel and the historical channel provide limited shallow water fish habitat during periods when the Willamette River backwaters into areas below the dam. There is very little complexity or cover within the channels to provide low velocity habitats for juvenile salmonids or other fish during high flow conditions.

Project Benefit to Salmonids

The Project will primarily benefit target salmonid species for juvenile rearing and migration, including the UWR spring-run Chinook salmon ESU, the LCR Chinook salmon ESU, the LCR steelhead DPS, the UWR steelhead DPS, and the LCR coho salmon ESU. The primary Project benefit for juvenile target salmonids will be the creation and enhancement of shallow water habitats with large wood and vegetation. The shallow water habitat will create refuge from high flows, low velocity areas for feeding, and complex cover that will provide escape from predators. Shallow water habitat with vegetative cover are preferred by juvenile salmonids. In a study of lower Willamette River salmonid use, the abundance of juvenile Chinook was significantly higher at sites with greater vegetative cover (Friesen et al. 2005). The highest median catch rate was greatest at sites with 71% to 80% bank vegetative cover. Juvenile target salmonids, which actively feed in the lower Willamette River, will also benefit from increased areas for feeding and increased food production from vegetation. Juvenile Chinook salmon grow as they migrate through the lower Willamette River. In comparison to upstream sites, sub-yearling Chinook fork lengths were 1 to 6 mm greater at downstream sites, also indicating growth along the lower Willamette River (Friesen et al. 2005).

There is evidence that juvenile salmonids actively use floodplains during high water periods for refuge and feeding. Floodplains near the lower Willamette River are used by juvenile Chinook salmon originating from the upper Willamette, lower Columbia, and upper Columbia summer-fall ESUs (Teel et al. 2009). By providing fish access into and out of the areas above the remnant dam during high flow events, there will be additional floodplain habitat available to juvenile target salmonids.

In summary, the Project will benefit primarily juvenile target salmonids, through the creation of off-channel habitats, which will increase food availability and provide high flow refuge areas for rearing and migrating fish.

1.3.2 Other Fish

Pacific Lamprey

Pacific lamprey spawn in habitat similar to that of salmon: gravel-bottomed streams at the upstream end of riffle habitat. The Willamette Basin has the largest lamprey population in the Columbia River Basin, with most of the spawning and juvenile rearing above Willamette River Falls. Spawning occurs between March and July. After emergence from the gravels, juvenile Pacific lamprey ammocoetes drift downstream to areas of low velocity and fine substrates where they burrow and grow and live as filter feeders for 3 to 7 years. Ammocoetes generally move downstream as they age, but their distribution can be altered due to extreme weather events or habitat-altering impacts. Ammocoetes have been found in sediments within the lower Willamette River (Jolley et al. 2009).

Metamorphosis to the juvenile phase (macrophthalmia) occurs gradually over several months, usually beginning in summer and completed by winter. As developmental changes occur, including the appearance of eyes and teeth, the juveniles leave the substrate to enter the water column. Moving downstream, they migrate to the ocean between late fall and spring. In the ocean, they mature into adults. Adult Pacific lamprey utilize the Project site and surrounding areas as a migration corridor into the Clackamas River and the upper Willamette River. Baseline surveys for lamprey were completed by USFWS prior to construction (May 2015). No lamprey were found in the pond, but lamprey were found downstream of the impoundment. Ammocoetes may rear within the bottom sediments of the river and channel within the Project site.

The Project will also benefit Pacific lamprey by providing increased access into areas with suitable sediment habitat and improved food availability for ammocoetes.

1.3.3 Wildlife

Bald Eagle

Bald eagles are typically associated with large bodies of water. Estuaries, lakes, and reservoirs with ample shorelines and shallow water provide foraging habitat for resident breeders, winter residents, and migrants. Population density in Oregon peaks in the spring when resident breeders, winter residents, and spring migrants occur simultaneously (Marshall et al. 2006). In Oregon, prime nesting locations are large trees generally within one mile of water. West of the Cascades, primary nest tree species are Sitka spruce (*Picea sitchensis*) and Douglas fir with more frequent use of black cottonwood as local bald eagle populations increase. Nest trees are old, have large limbs and open structure, and provide open views of the surrounding area. Protection from human disturbance tends to be important for nesting, successful hunting, and feeding of young, but some individuals do show tolerance for human activity (Marshall et al. 2006). Foraging behaviors vary by location and season. A study along the lower Columbia River Estuary found bald eagles acquire a little more than half their food by hunting live prey, about one quarter from scavenging, and the remainder from pirating. Fish comprise over two-thirds of prey taken, and waterfowl and seabird consumption increase in winter as they become more abundant. Foraging is dependent on availability of tidal flats and water less than 4 feet deep, and varying opportunistic strategies determined differences in diet between pairs and season (Watson et al. 1991).

Currently, the Project site supports limited habitat areas that benefit bald eagles. The site is in close proximity to the Willamette River and, although few conifers are present within the site, mature black cottonwoods in upland and riparian forests provide suitable roosting and perching habitat. The pond supports waterfowl, and some fish are present within onsite waterways for bald eagles to feed on. However, the poor quality of aquatic habitat and the disconnection of the pond from the Willamette River limit the availability of primary prey. In addition, the Project site's proximity to ongoing human disturbances, such as fishing, boating, and other recreational activities, renders the site largely unsuitable as nesting habitat. During baseline studies, an active nesting pair of bald eagles was observed utilizing a mature Douglas fir one-quarter mile from the Project site. Bald eagles were observed within the Project site boundaries occasionally during baseline studies, typically seen flying along the western Project boundary or perched in mature black cottonwoods along the bank of the Willamette River apparently hunting for prey.

Restoration efforts will enhance the quality and productivity of aquatic, active channel margin, mudflat, vegetated marsh, side channel, riparian, and upland forest habitats, benefiting bald eagle in a variety of ways. The forested areas will be planted with black cottonwood, grand fir, bigleaf maple, and Douglas fir, increasing the available habitat for roosting and perch-hunting.

While there is a high level of disturbance, some bald eagle pairs have shown a tolerance to human disturbance (Marshall et al. 2006), and the planting of more desirable Douglas fir could lead to potential nesting in the future. Dam removal, installed LWD, downed trees, and creation of off-channel habitat will result in long-term benefits to salmonids and other fish species within the project site, benefiting piscivorous avian species, including bald eagle. Waterfowl use of the project site may increase, thus providing another increase in prey resources for bald eagle. Installed LWD and downed trees will also provide a habitat complexity element beneficial to bald eagle.

Osprey

Historically, osprey nested only in forested regions of Oregon due to their preference for large, live trees (often with broken tops) and snags. Nest sites are typically located within 2 miles of a large waterbody. Along the Willamette River, osprey have adopted human-made structures such as channel markers and utility poles as suitable nesting foundations (Marshall et al. 2006). Lack of suitable nesting habitat along the lower Willamette River may be a limiting factor to osprey numbers given that foraging habitat appears to be abundant. Along the Willamette River, an osprey's diet consists almost entirely of fish, primarily largescale sucker (*Catostomus macrocheilus*) and pikeminnow (*Ptychocheilus oregonensis*). Osprey in the area spend about half the year wintering in Mexico and Central America, returning to breeding grounds along the Willamette River by mid-March to early April (Henny et al. 2003). Nests tend to be reused each year, which allows earlier laying and, in turn, more surviving young (Poole et al. 2002).

The Project site currently offers similar habitat benefits and limitations to osprey that it does to bald eagles. Some mature trees offer roosting and perching areas, but nesting sites are lacking. Open water hunting areas within the site are present, but prey availability is limited by the fish passage barrier presented by the dam and poor quality aquatic habitat. Unlike bald eagles, however, osprey have a high tolerance for human disturbance and should be able to nest successfully at the site if appropriate nesting structures become available. During baseline studies, osprey were frequently observed utilizing perches within the Project site boundaries.

Restoration efforts will enhance the quality and productivity of aquatic, active channel margin, mudflat, vegetated marsh, side channels, riparian, and upland forest habitats, benefiting osprey in a variety of ways. The forested areas will be planted with black cottonwood, grand fir, bigleaf maple, and Douglas fir, increasing the available habitat for perching and potential nesting. The project site's proximity to fishing, boating, and bike track racing should not affect the potential for osprey to nest onsite given their high tolerance to human disturbance (Marshall et al. 2006). Dam removal, installed LWD, downed trees, and creation of off-channel habitat will result in long-term benefits to salmonids and other fish species within the project site, which will benefit

piscivorous avian species, including osprey. Installed LWD and downed trees will also provide a habitat complexity element beneficial to osprey.

Mink

Mink are semi-aquatic, carnivorous mammals typically associated with river banks, lake shores, freshwater and saltwater marshes, and marine shore habitats (Gerell 1967). Mink are associated with brushy or vegetative cover adjacent to wetlands with irregular and diverse shorelines; they shy away from straight, open, exposed shorelines. Mink are nocturnal to borderline crepuscular with activity focused near open water. Their foraging niche is generally aquatic habitats, and diet varies with season, prey availability, and habitat type. Mink prey includes crayfish, fish, reptiles, waterfowl, birds, rodents, rabbits, and other mammals. Prey availability is the primary factor influencing movement and habitat use throughout the year (Allen 1986). Suitable mink habitat features continuous, structurally complex river bank corridors with cover provided by woody vegetation and debris, allowing mink to travel to and from den sites and foraging areas (Allen 1986). Mink prefer to den in tree roots, especially those of willows. Dens are also found situated within the aquatic emergent vegetation growing on banks and in human-created embankments of large boulders (Garcia et al. 2010). Mink travel to forage in a core area located adjacent to the den site (Allen 1986); distance travelled does not exceed 300 meters (Gerell 1970). Movement around and within water is dictated by bank slopes, and access to aquatic prey becomes increasingly limited as bank slopes become steeper. In-stream habitat structures including logs and log jams are important for mink when foraging (Verts and Carraway 1998). Mink are considered non-migratory, but they will travel distances up to 7.5 miles between den sites and foraging grounds (Whitaker and Hamilton 1998). Riparian and active channel margins within the Project site offer limited mink habitat. Banks of waterways, particularly of the Meldrum Bar Channel, are steep, and the channels have little to no structural complexity or presence of in-stream large wood, which limits foraging access and prey availability. The poor aquatic habitat and the fish passage barrier of the pond also limit mink foraging area. In addition, the dominance of invasive species in the riparian areas affects the quality of foraging and denning habitat. During baseline surveys, mink have been observed and photo-documented at the Project site multiple times. The number of individuals is unknown as identification by distinctive face and chest markings was not possible. It is also unknown for what purposes or how often mink use the site; no den sites were found, and the presence of tracks or scat was rare.

Restoration efforts will enhance the quality and productivity of aquatic, active channel margin, beach, mudflat, vegetated marsh, side channel, scrub-shrub, riparian, and upland forest habitats that will benefit mink in a variety of ways. Floodplain area along the historical and constructed channels will increase, increasing productivity of the food web. Some of these areas have steep

stream bank slopes currently; benching these areas will reduce this slope, allowing mink more mobility onsite. Dam removal and the proposed grading and restoration activities should increase productivity of the food web in three ways: (1) the emergent wetland area will be increased, (2) the number of downed trees and log structures in the pond will increase, increasing in-stream habitat, and (3) the existing pond and creek, above the existing dam, will be transformed into off-channel habitat for the Willamette River. In-stream habitat will be further supplemented through installation of log structures and downed trees. Removal of invasive vegetation and planting of native vegetation will increase food web complexity, improve stability of river banks, and increase habitat complexity, thus increasing diversity of prey and maintaining favorable bank slopes and cover for mink.

Spotted Sandpiper

The main habitat requirement for spotted sandpiper is a close proximity to water. In Oregon, breeding birds will use a variety of habitats along rivers, streams, ponds, marshes, and lakes from sea level up to the timberline (Marshall et al. 2006). Microhabitat requirements of nest sites include a general proximity to water's edge (within 100 meters) and herbaceous cover for protection from predators. Denser vegetation, preferably native blackberry (*Rubus* spp.) and stinging nettle (*Urtica dioica*), becomes more preferred for nesting as predator abundance increases (Reed et al. 2013). During migration and post-breeding dispersal, habitat preference becomes more generic with any inland waterbody being suitable, as well as jetties, headlands, and coastal estuaries. Winter birds may use fresh or saltwater including sewage ponds, human-made structures, woody debris, boat basins, and formed concrete (Marshall et al. 2013). Spotted sandpiper is a visual forager, preferring open habitat with firm or sandy substrate (Reed et al. 2013). Prey in Oregon include flying insects, insect larvae, grasshoppers, crickets, grubs, worms, beetles, young fish, and small crustaceans (Marshall et al. 2006).

Though the Project site is proximal to open water, spotted sandpiper habitat is limited by the presence of abundant invasive species in the riparian habitat, steep channel banks, and a lack of open to semi-open areas of herbaceous vegetation. Dense colonies of invasive species dominate areas adjacent to waterways, and the dam maintains high water within the pond year-round, supporting little emergent wetland vegetation and rarely exposing the important mudflat areas valued by spotted sandpipers. Spotted sandpipers have been observed onsite during spring migration and during winter. It is unknown at this time if they nest onsite.

Restoration efforts will enhance the quality and productivity of active channel margin, beach, mudflat, vegetated marsh, side channels, scrub-shrub, riparian, and upland forest habitats that will benefit spotted sandpiper in a variety of ways. Dam removal and proposed grading will increase shallow water habitat, resulting in increased areas of productive foraging habitat. The

formation of natural stream banks along the proposed meandering channel will support preferable vegetation and invertebrate productivity. Restoration of native plant communities will lead to a more complex and stable ecosystem, providing native cover for nesting and increasing invertebrate diversity. Enhanced habitat quality will benefit nesting and wintering sandpiper and provide a suitable staging area for migrants during spring and fall.

1.4 Non-Target Species

The following sections discuss non-target species found at the site, including species listed as sensitive by the state of Oregon.

1.4.1 Fish

Resident cutthroat trout (*Oncorhynchus clarkii*) are present in Rinearson Creek and are also found in the Project site. Cutthroat trout require cool water and clean spawning gravels to support healthy populations.

The Project will benefit cutthroat trout by providing cool water and increased stream habitat quantity and quality.

1.4.2 Beaver

Beaver (*Castor canadensis*) live throughout wooded and partly wooded portions of the Willamette Basin, preferring rivers, second- to fourth-order streams, lakes, and sloughs. Beavers select relatively low-gradient channels with physical attributes suitable for dam and lodge building. Beavers will build dams across creeks and other watercourses to impound water, which creates deep water for protection from predators, access to food supplies, and underwater entrances to dens. While beavers are capable of building elaborate dens, beavers in western Oregon typically tunnel into stream banks for resting, staying warm, overwintering, giving birth, and raising young. Beavers forage on the leaves, inner bark, and twigs of trees and shrubs and will also eat ferns, aquatic plants, grasses, and crops (Puchy et al. 2010).

Currently, the Project site supports aquatic, active channel margin, beach, mudflat, vegetated marsh, side channels, scrub-shrub, riparian, and upland forest habitats that benefit beaver. The pond, historical channel, constructed channel, and the west bank of the Willamette River provide aquatic habitat for beaver. Partially wooded areas feature a variety of trees and shrubs for foraging. Beavers and beaver tracks have been observed many times at the Project site, and beavers have also been visually observed swimming and foraging on shrubs onsite. There have also been observations of girdled black cottonwood.

Restoration efforts will enhance the quality and productivity of aquatic, active channel margin, beach, mudflat, vegetated marsh, side channels, scrub-shrub, riparian, and upland forest habitats that will benefit beavers in a variety of ways. Planting of native trees and shrubs will increase foraging opportunities onsite. Native vegetation will also help stabilize channel banks, making them more suitable for denning. Removal of Himalayan blackberry will make large trees, such as black cottonwood, easier to access and forage on. The proposed pool area will offer deeper water that can be used for protection from predators and food storage. Dam removal will allow both easier access to the pond and safer access to and from the pond since it will no longer be necessary for beavers to leave the safety of the water to get around the dam.

1.4.3 Native Turtles

Western Pond Turtle

Western pond turtle (*Actinemys marmorata*) is a state-listed sensitive (critical) species. These turtles depend on both aquatic and terrestrial habitats for survival. Suitable aquatic habitat consists of permanent and seasonal water features including rivers, sloughs, lakes, reservoirs, ponds, and irrigation canals. Terrestrial habitat is utilized for nesting, overwintering, dispersal, basking, and aestivation (a summer dormant period). Overwintering sites typically include upland habitat as well as burial in the substrate of aquatic habitats and undercut banks along streams. Nest sites are minimally vegetated, generally lack cover, south-facing with adequate solar exposure, and usually located within 100 meters of suitable aquatic habitat. Nesting substrates vary but are typically compact and well drained. Turtle nesting may occur along trails, levees, roadbeds, fields, grasslands, and stream banks and within utility rights-of-way. Limited observations of young juveniles and hatchlings tentatively suggest preference for habitat with slow-moving, shallow, warmer bodies of water, often with extensive cover of emergent vegetation. Western pond turtles are omnivorous, opportunistic feeders that forage exclusively in aquatic habitats. Typical prey includes larvae of aquatic insects, earthworms, mollusks, and crustaceans, as well as vertebrates such as tadpoles, frogs, and small fish. Plant matter including algae and roots of aquatic plants are consumed by adults and occasionally juveniles. Plankton may also have important nutritional value. Pond turtles have also been observed scavenging waterfowl and several fish species (Rosenberg et al. 2009).

Western Painted Turtle

Western painted turtle (*Chrysemys picta*) is a state-listed sensitive (critical) species. These turtles depend on both aquatic and terrestrial habitats for survival. Suitable aquatic habitat consists of slow-moving and shallow water with surface or emergent vegetation. Preferable aquatic habitat features muddy substrate within streams, canals, sloughs, small lakes, and ponds.

Terrestrial habitat is used primarily for nesting but is sometimes also used for overwintering and as a corridor between aquatic habitats. Nest sites are minimally vegetated, generally lack cover, are south-facing with adequate solar exposure, and usually located within 100 meters of suitable aquatic habitat. Nesting substrates vary, but are typically compact and well drained. Turtle nesting may occur along trails, levees, roadbeds, fields, grasslands, and stream banks, and within utility rights-of-way. Habitat requirements of hatchlings are poorly understood, but some evidence suggests movement into shallower aquatic habitats after leaving the nest chamber. Western painted turtles overwinter within the benthic zone, but they may also utilize terrestrial habitats during winter (Gervais et al. 2009). The diet of western painted turtles tends to be similar to western pond turtles.

The Project site's existing turtle population is one of only a few known reproducing populations of western painted turtles in the Portland Metro area, with an estimated 15 to 20 individual western painted turtles at the site. Successful nesting has been documented for multiple years in a row, with different age classes documented. A recommended conservation action in the Oregon Conservation Strategy is to protect important turtle nesting sites. ODFW considers the Rinearson site extremely important to the overall conservation of western painted turtles in the Portland Metro area, and potentially for the conservation of western pond turtles as well. While turtles are capable of dispersing and finding suitable habitat, they also exhibit high site fidelity. This makes the protection and enhancement of known turtle sites such as Rinearson very important (Susan Barnes, ODFW, pers. comm. 2015).

Currently, the Project site supports aquatic, vegetated marsh, side channels, and upland forest habitats that benefit western pond and western painted turtles. The pond and historical and constructed channels offer permanent, slow-moving water as well as shallow water with emergent vegetation. These features provide suitable foraging areas for both of these turtle species, as well as overwintering habitat for western painted turtles. In-stream habitat structures include log structures, downed trees, and a dilapidated wooden dock which provide safe areas for adults and juveniles to bask as well as cover for juveniles. Terrestrial habitat adjacent to the historical channel and pond is suitable nesting habitat for both turtle species. This area is south-facing with adequate solar exposure and well within 100 meters of suitable aquatic habitat. Upland forest provides overwintering habitat for western pond turtles, although this species may also utilize aquatic habitats and undercut banks along the channels during this cycle.

Existing turtle nesting areas will be preserved, and to the extent needed, enhanced, and restoration efforts will provide both shallow water benches and deep pond areas that turtles use as habitat. LWD placed in the pond, on the islands, and along the meander channel will provide

basking areas and cover for turtles. Shallow water benches and the deep pond areas provide a variety of water depths. The nesting areas consist of bare, unvegetated ground, with bunch grasses planted at 5 feet o.c. and shrubs planted at 30 feet o.c. to provide some refuge but not shade the nesting areas. To ensure adequate solar exposure, the nesting areas have open southern and western solar exposure and are relatively flat.

Restoration efforts will enhance the quality and productivity of aquatic, vegetated marsh, side channel, and upland forest habitats that will benefit western pond and western painted turtles in a variety of ways. Dam removal and proposed grading will increase shallow water habitat and create new off-channel habitat, which will increase foraging opportunities and productivity. Planting of native terrestrial plants will help stabilize banks and improve overwintering habitat for western pond turtles. Planting of native emergent vegetation will improve foraging habitat for both native turtle species. Increased plant diversity and the creation of fish passage by removing the dam will ultimately lead to a more complex and stable food web, benefiting both species of native turtles.

1.4.4 Little Willow Flycatcher

The little willow flycatcher (*Empidonax traillii brewsteri*) is a state-sensitive (vulnerable) species due to population decline. It is a late-arriving, long distance migrant associated with shrub-dominated habitats, often in wet areas (Sedgwick 2000). In the Willamette Valley, little willow flycatchers nest in both riparian shrub and upland shrub thickets, preferring the non-native species Himalayan blackberry and Scotch broom (*Cytisus scoparius*). Throughout the Willamette River Basin, trailing blackberry and vine maple (*Acer circinatum*) are important components of native nesting habitat. Breeding success is not significantly different between native and non-native plants (Marshall et al. 2006). Primarily an aerial forager, willow flycatchers generally forage within shrub patches and the openings between patches. While foraging, they fly out horizontally from a perch to capture insects in mid-air, as well as hover to glean insects off leaves, herbs, grass, flowers, and branches (Sedgwick 2000).

Currently, the Project site supports scrub-shrub, shrub thicket, riparian, and upland forest habitats that benefit little willow flycatchers. The dominant presence of Himalayan blackberry throughout the project site provides quality nesting habitat. A mosaic of native and non-native shrubs, and the open spaces between, offer suitable foraging habitat. The variety of water features also fulfills the species' preference for wetter habitat types. An abundance of insects during the breeding season appears to meet the species' dietary requirements. During baseline studies, two little willow flycatcher breeding territories, one on the east side of the pond and another along the west side of the historical channel, remained occupied throughout the nesting season.

Restoration efforts will enhance the quality and productivity of scrub-shrub, shrub thicket, riparian, and upland forest habitats in a variety of ways that will benefit little willow flycatchers. While removal of Himalayan blackberry will initially reduce nesting and foraging habitat, restoration of native plant communities will lead to a more complex and stable ecosystem, provide native cover for nesting and foraging, and increase invertebrate productivity and diversity. Planting of vine maple will provide preferred native nesting habitat.

1.5 Project Constraints

1.5.1 Temperature

The Project site will continue to receive runoff from the residential- and commercial-developed areas of Gladstone and OLSD. Runoff will continue to be a potential source of thermal loads to Rinearson Creek during summer thunderstorms. This impact could be reduced over time as the City implements the capital improvements recommended in its recently updated Stormwater Master Plan, such as “green street”-type capital improvements to help alleviate flooding and improve stormwater quality.

1.5.2 Trash Management

Water eddying into the site from the Willamette River or backwatering into the site during high flow conditions, brings debris, including wood and other plant matter and trash, from the Willamette River into the Meldrum Bar Channel. This debris lodges in the channel and traps additional debris. Currently, adjacent landowners periodically clear the debris from the channel.

Elsewhere onsite, some trash, primarily food containers and glass bottles, is left by people who visit the area, primarily along the shore of the Willamette River and the Meldrum Bar Channel.

Trash will be managed throughout the performance period by the project implementer and will be managed by the site steward thereafter. The site will be patrolled and signed to limit access. Woody debris and logs collected in the channels and deposited in the floodplain will not be removed from the site.

1.5.3 Turtle Habitat Areas

The site currently provides habitat, including nesting areas, for native turtle species. Turtle habitat at the site includes open, sparsely vegetated beach areas with a southern aspect for nesting, the open ponded area, and wood in the pond for basking. Individual turtles will be managed during construction at the direction of ODFW. The Project will preserve and enhance turtle foraging, juvenile rearing, and nesting habitat. Shallow water areas in the remnant pond are designed to provide juvenile rearing areas, and logs will be placed for turtle basking.

1.5.4 Invasive Vegetation

Invasive vegetation is prevalent throughout the Project site. Vegetation composition and cover are critical parts of the Project site restoration; native and diverse species assemblages will provide the highest quality habitat for fish and wildlife. The Project site will require a rigorous invasive species treatment program from pre-construction into the post-construction phase, with the goal for the site to be self-sustaining with only moderate long-term site maintenance activities in place. Establishment of overstory cover and native understory species will create growing conditions that will be more favorable to native species overall, reducing the need for maintenance over time.

1.5.5 Security and Public Access

There is one public trail for accessing the site, located off of the east side of the parking lot at Meldrum Bar Park (Figure 2). The trail runs north from the parking lot and terminates in two overlook areas just south of the pond. The trail and overlook areas are surfaced with coarse bark chips and are delineated by wooden fencing. The trail and overlooks will be retained as part of the proposed plan. No additional trails are proposed, and access to the site outside of the trail system will be controlled. Unauthorized access, which currently occurs throughout the Project site, will actively be deterred. Dense plantings of native vegetation selected to deter public access will be planted at areas where unofficial trails have become established and in other key areas where the public may be tempted to enter the site. Public access will also be controlled using fencing along the perimeter of the parking lot and the trail, and signage around the boundaries of the Project area, and ongoing community outreach to explain the restoration goals of the Project.

A private access route from the RRPOA common area north of Rinearson Pond will be retained but improved to limit access. Two existing stairways providing access from the homeowner's association will be retained, and an informal footpath that connects them will be improved with wood chip surfacing. Access to the stairways is restricted to the RRPOA members and is controlled by locked gates maintained by the RRPOA.

Chapter 2. Description of Restoration Activities

2.1 Basis of Design

The post-Project restored condition profile attempts to recreate conditions that were present in the 1960s (based on the 1961 aerial photo). This is a reasonable historical reference condition because it integrates some of the watershed- and landscape-scale hydrologic and land use

impacts on Rinearson Creek and the Clackamas and Willamette Rivers. Prior to dams being in place on the Clackamas River and flows being managed in both the Willamette and Clackamas Rivers, the Project site most likely experienced higher inputs of sediment and the bed elevations of both the Willamette and lower Rinearson Creek were likely much higher. Using 1961 as the reference condition suggests that a pond existed within the current footprint of the dam impoundment area, likely due to the activities of beaver. The beaver dam ponds were likely to be much shallower than the current pond, and the upper reaches of the current impoundment were probably only intermittently inundated, as evidenced by the presence of woody vegetation throughout the upper reaches of the existing impoundment. Downstream of the beaver dams, the gradient of the channel likely increased, primarily due to the fact that the beavers, by default, built up the upstream elevations and enhanced sediment deposition. The channel alignment then flattened out before reaching the Willamette, due to periodic sedimentation at the mouth associated with eddying and sand deposition. The net effect of these factors produced a stepped profile. When the constructed channel was introduced to the site in the early 1990s, it appears to have been cut below the elevation of the natural outlet. This was done to provide more frequent access to the Willamette River, but also resulted in the creation of a knickpoint that appears to have migrated up to the dam. That headcut is currently threatening the stability of the dam.

To restore the historical profile, the project will implement the elements identified in Figure 6 and which are shown in more detail in the construction documents (Appendix C) and planting plan (Appendix H). Those elements are also summarized below in Sections 2.1.2, 2.1.3, 2.1.4 and 2.1.5.

2.1.1 Construction Sequencing and Timing

Project construction will begin with the gradual draw-down of the existing pond 1-2 months before grading activities begin to allow the soil to dry. Prior to and during draw-down, turtles will be removed from the pond pursuant to the Project's Wildlife Capture, Holding, Transport, and Relocation (CHTR) Permit and with guidance from ODFW.

The pond will be drained by opening the wheel-operated gate valve located at the dam outlet control structure. During draw-down, native and non-native fish will be removed with seine nets. Native fish will be placed in Rinearson Creek or the Willamette River. Additional dewatering measures will be implemented prior to construction to divert the creek around the work areas.

Construction will proceed from the downstream to upstream end of Rinearson Creek. First, the benches and other grading features along the Meldrum Bar Channel and the historical Rinearson creek channel will be constructed. The roughened channel below the existing dam and

associated log structures will then be constructed. When constructing the roughened channel, the existing dam’s concrete structure and pipes will be removed, and the remaining earthen structure will be lowered to the design elevation. The area above the dam will then be graded (including the backwater areas, meander channel, and pond) followed by installation of log structures associated with the area upstream of the dam. Native plants will be installed in the winter after construction.

Timing	Activity
2016 to 2017	Invasive Species Removal
May to June 2017	Turtle Removal
May to June 2017	Draw-down of pond
July to Aug. 2017	Preparation of site
Aug. to Oct. 2017	Removal of dam infrastructure and lowering of earthen fill Grading and installation of roughened channel and sill Placement of habitat features Grading of Meldrum Bar and historical outlet channel benches
Oct. 2017 to Jan. 2018	Broadcast seeding for erosion control Installation of emergent plugs
Dec. 2017 to Jan. 2018	Installation of native woody plants
April to May 2018	Turtle Removal
June 2018	Fish Removal and Pond draw-down
June to July 2018	Grading of pond and related features Placement of habitat features within upstream area
July to August 2018	Construction ends
December 2018	Final plantings completed As-Built delivery

2.1.2 Site Preparation / Demolition

Site preparation will include installing construction fencing to protect native vegetation and installation of erosion and sediment control (ESC) measures prior to any grading activities or equipment mobilization onto the site. The contractor will limit impacts to existing trees to the extent practicable, but some trees will likely need to be felled to provide equipment access to the site. Any trees removed during construction will be salvaged for use onsite as LWD.

Demolition will primarily consist of removing the dam outlet control structure which includes a concrete box, steel outlet grating, steel cover grating, inlet and outlet pipes, and a wheel-operated gate valve. Wire-mesh gabion mats and the turf-reinforcing grid related to the dam overflow spillway will also be removed. Other minor structures slated for demolition include a concrete headwall and pipe near the upstream end of the pond (related to a historical road creek crossing) and two iron pipes, two timber pilings, and a wooden dock structure along the downstream creek outlet channel.

2.1.3 Earthwork and Restoration Elements

Earthwork will include grading and excavation to improve and increase habitat area below the OHWM, removal of the existing dam and outlet structure, construction of the roughened channel downstream from the dam location, excavation of the remnant pond, and creation of habitat benches along the historical and Meldrum Bar channels.

Existing Dam

The majority of the existing earthen dam fill material will be excavated to prepare the subgrade for the roughened channel. As described in Section 2.1.2, the additional infrastructure associated with the dam will also be removed.

Roughened Channel

This project element will be constructed below the remnant pond to achieve a reasonable channel gradient up to the remnant pond and to meet fish passage criteria. The roughened channel will be approximately 280 feet long and will extend from the remnant pond to a pool where Rinearson Creek turns south to flow out the Meldrum Bar Channel. Engineered fill will be placed in the bed and along the banks of the existing channel to raise the elevation of the incised bed and achieve a channel gradient of approximately 3.5%, which is appropriate for salmonid and lamprey passage.

The channel streambed itself will be constructed of engineered streambed material (ESM). This aggregate material is sized to withstand hydraulic scour during high flows and to maintain hydraulic connectivity during low flow conditions (i.e., to prevent low flows from permeating through the ESM). Large wood structures and larger cobbles and boulders will be installed along the roughened channel banks to provide additional roughness, improve habitat conditions, and assure fish passage.

The downstream end of the roughened channel will include a deepened reinforced toe to prevent undercutting. A second, short segment of roughened channel will be constructed in the Meldrum Bar Channel to create a backwater pool at the base of the roughened channel for added

energy dissipation. These features are intended to maintain stability of the roughened channel and maintain fish passage in the event that dredging in the Meldrum Bar boat basin or other similar action causes a headcut to propagate into the Meldrum Bar Channel.

Earthen Sill and Remnant Pond

Upstream of the roughened channel, a portion of the existing pond will be maintained to mimic the beaver pond that was present in the 1961 aerial photo. The pond will abut the south hillslope to take advantage of the large, shading cottonwoods. The pond will be created by excavating within the current impoundment to an average depth of approximately 4 feet below the channel invert elevation at the top of the roughened channel.

The roughened channel will form a sill at its crest to create the transition from the remnant pond into the downstream roughened channel. The sill is designed to provide fish passage over a range of flow conditions: during Willamette River backwatering, during high flows and subsequent draining as the flows recede, and during low flows sustained by Rinearson Creek. Lamprey would be provided passage through the roughened channel and over the sill. The roughened channel has a shallow gradient, with low velocities, will have natural rock that is suitable for obtaining a good seal with their sectorial disk, and the sill area is expected to be consistently wetted. The sill will be approximately 5 feet along the channel centerline and have a flat gradient (0% slope) along the creek profile. It will transition in width from the wider pond footprint to the narrower roughened channel. A low-flow notch will be constructed along the centerline of the sill to maintain adequate fish swimming depths during periods of low flow from Rinearson Creek. The relatively wide, flat sill is a contingency measure to maintain the minimum design pond water surface elevation if localized settlement of a portion of the underlying fill occurs. If settlement occurs, it is not expected to occur beneath the entire footprint of the sill area.

Meander Channel and Shallow Backwater Areas

A meander channel will be excavated upstream of the remnant pond to restore the creek through this area. Material excavated from the channel will be used to create higher areas to the immediate north and south of the channel (floodplain benches) separating the channel from off-channel wetlands. The channel will be designed to convey flows in Rinearson Creek up to the 0.8-year flow events, at which point the channel will overtop into the off-channel wetlands through notches in the floodplain benches. The meander channel and floodplain benches are also designed to allow Willamette River backwater to overbank into the off-channel wetlands.

Areas excavated to the south and east of the existing pond footprint will create new shallow backwater areas that will be inundated on an annual basis and increase the available area of

quality ACM that can be vegetated with native species. These will be relatively shallow, mildly sloped graded features to increase and improve high water habitat.

The remnant road along the eastern edge of the existing pond will be removed. Removing the road fill benefits habitat because it allows for the creation of more ACM area (the extent of OHWM) and also removes historical fill and structures.

Off-Channel Wetlands

Wetland habitat will be created in depressions behind the floodplain benches beside the meandering channel. High water events from Willamette River backwater and bankfull creek flow from Rinearson Creek will spill through notches in the floodplain benches and flood the depressions on a seasonal basis to sustain wetland plants and hydrology.

To further add to habitat diversity and complexity, small topographically raised “islands” will be graded to an elevation of 20 to 22 feet. These will be at wetland elevations, but allow for a scrub-shrub community and habitat features to be present within the emergent wetlands. The islands will be constructed of available onsite material and topped with rock mounds as well as wood structures.

Historical Outlet to Willamette River

The historical creek outlet to the Willamette River will be graded to improve habitat conditions through construction of low wetland benches along the southern side of the channel. The historical Rinearson Creek outlet is subject to unpredictable sediment deposition from the Willamette River, which could potentially block fish access to the creek during low Willamette River stages if this was restored as Rinearson Creek’s main confluence with the river. Improvements will also include invasive species control and revegetation to improve habitat conditions and increase riparian shading.

Meldrum Bar Channel

The Meldrum Bar Channel, which connects the lower Rinearson Creek channel to the Willamette River, will remain as the primary outlet to the Willamette River. Habitat benches will be constructed along its banks. While the benches are located to avoid native trees to the maximum extent practicable, some trees will need to be removed. Any trees that are removed during restoration activities will be used as LWD elsewhere at the site, as appropriate.

2.1.4 Vegetation Restoration (Planting Scheme)

Native vegetation communities will be restored to improve habitat provided for target species. Native vegetation will be restored throughout the Project site by installing native species, controlling invasive species, and retaining existing native vegetation (Appendix H).

The habitat types proposed for planting (Figure 7) include the ACM, side channels, and embayment/cove with tributary habitat, riparian zones, and contiguous uplands as defined by the HEA habitat types described above. The selection of plant material is based on observed and historical native plant communities at the Project site and similar sites, as well as the expected hydrologic regime from the Willamette River and Rinearson Creek. Vegetation treatments will vary across the site as described below.

Graded Areas

Post-earthwork native vegetation will be planted according to the planting plan (Appendix H). Woody vegetation will be container stock, bare root, live stakes, or a combination of these. All plant material will be procured from native plant nurseries in northwestern Oregon or southwestern Washington. Some live willow stakes may be collected from existing willows at the site. Trees and shrubs will generally be installed at 4 to 5 feet on-center (o.c.), except in areas planted to control public access, where they will be planted at 4 feet o.c. Willow stakes will be planted at 2 feet o.c., and wetland emergent plugs at 2 feet o.c. These spacing requirements meet the plant installation density requirements in the Trustee Council' guidance documents.

Enhancement Areas

Enhancement areas are portions of the site where some existing native vegetation is present and will be preserved. Invasive species will be removed, and native trees and shrubs will be installed in the cleared areas as needed to increase native plant cover and to deter colonization by invasive species. Areas surrounding existing trails and where unauthorized trespass is known to occur will be planted at greater density (4 feet o.c.), selecting species that develop dense growth.

Maintenance

This phase will follow construction after weed cover has been reduced to desirable levels and will continue throughout the monitoring period. Maintenance activities will target re-growth of weeds, especially where they threaten plantings; supplemental plantings will also be installed as needed. Maintenance activities will be informed by annual invasive species monitoring. Community stewardship may be engaged in this phase of vegetation management. The site steward will be responsible for identifying infestations and coordinating efforts to prevent colonization of invasive species, consistent with state laws and NRDA stewardship agreements.

Herbivory Control

Installed vegetation will be protected from herbivory damage through fencing, use of plant protectors, repellents, or other means. Damage or loss of vegetation will be reported in annual monitoring reports, and management strategies will be developed as needed. Herbivores will not be killed or trapped to control herbivory; specifically, beaver will be allowed to colonize the site and affect site conditions.

2.1.5 Structural Habitat Elements

The total number of wood and rock pile structures either installed or retained onsite will be at least 3-5 structures per acre for both the ACM habitat areas and the terrestrial areas.

Existing downed wood and living trees will be left in place to provide habitat benefits. The downed wood and living trees are in a location where wood is anticipated to naturally recruit due to prevailing wind and wave direction. Trees and wood left in place are anticipated to promote recruitment of additional woody debris by providing additional roughness. Grading alongside the Meldrum Bar Channel will require felling of several trees that will be placed nearby or relocated within the Project area for optimal habitat benefit.

Large wood structures with rootwads attached will be placed in the meandering channel and in the wetland areas alongside the meandering channel. Whole trees will be felled on site and placed at the pond margins to provide cover and organic material.

Large wood structures with rootwads attached will be placed on the banks of the roughened channel to create additional roughness and improve habitat conditions. Logs installed during construction will be stabilized and held in place using rock and boulder ballast.

Nine rock piles will be placed in uplands to provide habitat. The rock piles will be placed such that it receives both sun and shade each day and are near water and riparian zones, with little or no chance of being inundated by water. Rock piles will consist of 8 inch to 36 inch rocks placed in a pile to create 6 inch openings and will be partially buried below the ground surface. Three rock piles will be 15-feet long by 8-feet wide by 6-feet above ground surface. The remaining piles should be at least five feet in diameter and four feet tall, with an 8-12" diameter at breast height (DBH) log placed alongside them where possible.

Wood piles, approximately 20 feet wide by 10 feet wide will be created using wood accumulated from clearing vegetation and downed trees onsite. The center of the pile will be supported by substantial woody material (e.g. logs or root wads) to create and maintain loft. Stems sizes should be randomly mixed from twigs to large logs using woody species available (McDonald 2008).

In order to meet objective 3 of this plan, which indicates there will be 18 snags on the property, trees will be brought from off-site and installed, or will be girdled to create snags if they become damaged during construction. All snags are valuable, but it is preferable if the created or installed snags are at least 30 feet tall and 16 inches DBH as measured from ground surface at installation. The snags should have a minimum of 5 intact branches of varying lengths with stem heights above ground between 5 and 30 feet, or greater. The snags should be in an early stage of decay with at least 75 percent of the bark attached to the tree's primary stem. The snags will be either Douglas fir, Western red cedar, big-leaf maple, or black cottonwood.

2.2 Project Benefits

2.2.1 Future Habitat Types and Acreages

Active Channel Margin

Existing ACM habitat will be improved via excavation and grading to reduce steep slopes along banks and by the removal of invasive species and planting of natives (Figure 7). Fish will have access to a much larger amount of ACM habitat after fish access is restored above the existing dam. New ACM habitat will be created by grading selected areas to elevations below 24 feet. The total post-restoration ACM habitat will be 10.27 acres; this is an addition of 2.76 acres of available ACM habitat to the existing acreage.

Post-restoration, plant communities within the ACM habitat area will include emergent marsh in the off-channel wetlands and scrub-shrub/forested wetlands below the roughened channel.

Riparian Habitat

Riparian habitats will be improved by removing invasive species and planting native scrub-shrub and forested communities. The total post-restoration riparian habitat will be 15.54 acres and will include areas both within and outside the historical floodplain (Figure 7). This represents a loss of 0.39 acres from the existing condition due to reconfiguration of the pond and ACM areas. The riparian habitat will contain both wetland and upland areas with scrub-shrub and forested vegetation communities. Plants that will be installed were selected based on expected hydrologic regimes with the goal to establish forest canopy.

The riparian habitat area will still include a pedestrian pathway and two overlook areas. That acreage, with a small buffer, has been removed from the total riparian acreage for the purpose of credit generation. The path and overlooks will be fenced and surrounding plantings will limit access to the riparian area by humans. Given this approach, the current value assumes negligible recreational impacts beyond the footprint of these recreational features.

Off-Channel Habitat

Post-restoration off-channel habitats include side channel habitat and embayment/cove with tributary habitats (Figure 7). The channel areas in Meldrum Bar Channel and the portion of the historical channel outlet of Rinearson Creek will remain. They will also be improved through grading to restore hydrologic processes and connectivity with the Willamette River and through removal of invasive species and planting of native species. The remnant pond, which is considered to be embayment/cove with a tributary, will be improved through restoring fish access, removing invasive species present along the shoreline, and planting native species along the shoreline.

Post-restoration side channel habitat is expected to be 0.58 acres (0.58 acres in existing conditions) and the embayment/cove with tributary habitat is expected to be 1.34 acres (3.38 acres in existing conditions).

Upland Habitat

Upland habitats will be improved by removing invasive species and planting forested communities. The total upland habitat will be 4.98 acres and will include areas both within and outside of the historical floodplain (Figure 7).

2.2.2 Hydrology

Stormwater outfalls that discharge directly into the Project site contribute a proportionally small amount of drainage relative to the overall creek basin. Consequently, the water quality impacts from these outfalls are proportionally small relative to the overall basin, and treatment of this runoff would not likely have a significant impact on the overall water quality condition in the creek and pond.

The stormwater outfall located in the southeast corner of the Project site discharges to a natural topographic depression. Lower flows appear to be captured by this depression and infiltrate into the underlying soil, preventing them from reaching the creek and pond. Any overflow from this depression will travel overland through heavy vegetation prior to reaching the creek and pond. Runoff from this outfall appears to be treated through these passive mechanisms.

Water temperature conditions in the pond should improve from the smaller pond footprint and increased pond depth, which will reduce the impact of solar inputs and resultant temperature increases. Also, the pond surface will be at a lower elevation, which may increase cold water spring inputs from the north slope because additional springs and seeps might emerge. Wetland scrub-shrub communities in the meander channel portion of the project will provide additional shading as the plants mature, further reducing solar inputs to the waterbody.

The proposed Project will result in a significant change to site hydrology. By lowering the dam, areas upstream from the dam will be subject to substantially more frequent inundation by Willamette River backwater. This modification will result in areas upstream of the dam being inundated at river stages greater than elevation 16.9 feet, which occurs up to approximately 30% of the time during winter and spring months (compared to 10% of the time under current conditions).

2.2.3 Soils and Sediment

Proposed grading and excavation of the site will result in excess spoil materials which will be placed onsite. The portion of the ESM represented by larger boulders will be imported and mixed with onsite materials to construct the roughened channel. As discussed earlier, this aggregate material is sized to withstand hydraulic scour during high flows and to maintain surficial flow during low flow conditions (i.e., prevent low flows from permeating through the ESM).

The Project proposes grading and excavation of pond sediments. Some of these sediments will be graded and shaped to create desired topography, while some will be moved to upland areas of the site.

Chapter 3. Goals, Objectives and Performance Standards

Project-specific goals and objectives are linked to NRDA program goals through site performance monitoring based on stated performance standards. Project-specific goals include broad actions that should occur at the Project site that will allow the Project to support the goals of the overall NRDA program. Each goal also includes specific objectives; these objectives are specific actions that can be measured or observed in the field. Performance standards developed for the Project are those measures that, when met, demonstrate that Project objectives have been achieved.

3.1 Goals and Objectives

3.1.1 Goal 1 – Restore typical floodplain structure

- 3.1.1.1 Objective 1 – Grade the Project site to typical floodplain topographic conditions; modify existing dam; establish floodplain benches; restore Rinearson Creek channel.
- 3.1.1.2 Objective 2 – Install and retain woody structures, and rock and debris piles typical of ACM, tributary, floodplain, and upland habitats.
- 3.1.1.3 Objective 3 – Provide fish year round passage throughout aquatic habitats.

3.1.2 Goal 2 – Restore native vegetation communities

- 3.1.2.1 Objective 1 – Establish native-dominated marsh vegetation in areas that are currently ponded; control invasive marsh species (1.22 acres. See Area B-Figure 8).
- 3.1.2.2 Objective 2 – Establish riparian and wetland forest vegetation in graded portions of the site; control invasive wetland and riparian species (5.72 acres. See Area A-Figure 8).
- 3.1.2.3 Objective 3 – Enhance existing riparian and wetland forest vegetation where existing vegetation includes both native and invasive species (9.46 acres. See Area C-Figure 8).
- 3.1.2.4 Objective 4 – Control invasive vegetation in riparian and upland forests with existing mature tree canopy (14.37 acres. See Area D-Figure 8).

3.1.3 Goal 3 – Restore typical hydrologic conditions

- 3.1.3.1 Objective 1 – Restore floodplain interaction between Willamette River and areas upstream of the remnant dam.
- 3.1.3.2 Objective 2 – Increase area inundated by regularly recurring flood events in the Willamette River.

3.1.4 Goal 4 – Improve water quality over existing conditions

- 3.1.4.1 Objective 1 – Improve water temperature, dissolved oxygen, and conductivity in aquatic habitats.

3.1.5 Goal 5- Increase use by fish and wildlife species by improving access and improving habitat quality

- 3.1.5.1 Objective 1 – Increase use of site by native fish species by providing upstream fish access, enlarging ACM area within the site by 2.6 acres, and installing 17 engineered woody habitat structures accessible to fish, and retaining all existing logs.
- 3.1.5.2 Objective 2 – Increase use of site by native bird species by retaining (occurring as existing debris, or trees cleared from construction) more than 3 terrestrial and aquatic woody structures per acre, establishing 1.22 acres of native emergent marsh area adjacent to open water and forested habitat, and increasing native vegetative cover across the entire site.
- 3.1.5.3 Objective 3 – Increase use of site by bald eagles by planting black cottonwood, grand fir, bigleaf maple, and Douglas fir trees in 14.7 acres of the site, and by installing or creating a total of 18 standing snags on the property.
- 3.1.5.4 Objective 4 – Increase use of site by mink by increasing ACM area within the site by 2.6 acres and installing 17 habitat structures in aquatic and riparian areas
- 3.1.5.5 Objective 5 – Increase abundance and diversity of macroinvertebrates present on site through increasing stream channel length within the site by 150 feet, improving water quality, and establishing native vegetation in 10.3 acres of ACM area.

3.2 Performance Standards

Performance standards have been developed based on site-specific restoration goals and monitoring questions and are linked to specific measurable parameters. Performance standards include interim and final metrics: interim performance standards assess the site's development trajectory and shift over time to reflect expectations of habitat development; final performance standards reflect the overall restoration goals for the Project site and must be met by the end of the performance period. Sites that meet interim performance standards consistently are expected to meet final Year 10 performance standards. Performance standards in years 3, 5 and 10 are associated with the credit release schedule in Appendix G-1. Failure to meet interim performance standards will trigger consultation with the Trustee Council and the project

implementers to determine appropriate adaptive management strategies and remedial actions (See Section 6.10 – Adaptive Management Framework). Such contingency measures are to be implemented upon the Trustee Council’s written recommendations (Trustee Council 2014).

Performance standards for each parameter are listed below. Each performance standard describes a threshold to be achieved and includes a timeframe (Year 1 through Year 10).

3.2.1 Geomorphic/Structural Habitat Elements

Geomorphic design features relate to the slope and morphology of engineered channels and the topography of ACMs for the purpose of providing fish passage and habitat. Structural habitat features include LWD placed in stream channels, in the remnant pond, and in riparian and upland forested areas for fish and wildlife.

Performance standards for geomorphic/structural habitat elements are as follows:

1. 100% of installed in-stream large wood pieces will be retained and present, or naturally recruited, downstream of the remnant pond outlet in Years 1, 3, 5, 7, and 10.
2. 80% of placed in-stream large wood pieces and structures will be retained and present upstream of the remnant pond outlet in Years 1, 3, 5, 7, and 10. Terrestrial habitat structures include snags, downed large wood, and rock and debris/brush piles. Naturally recruited habitat structures, as well as installed structures, are included within the retention rate.
3. 80% of placed terrestrial habitat structures will be retained and present, or naturally recruited, within upland and riparian areas in Years 1, 3, 5, 7, and 10.
4. ACM acreage will not decrease by more than 10% compared to As-Built drawings in Years 1, 3, 5, 7, and 10.
5. In order to ensure year-round fish passage for juvenile and adult salmonids, the roughened channel gradient will not exceed 4% slope and jump heights will not exceed 6 inches, the remnant pond outlet will discharge continuously, and the channel thalweg downstream of the former water control structure will remain wetted during low water conditions in Years 1 through 10.

3.2.2 Hydrology and Hydraulics

Hydrology and hydraulic site restoration goals relate to the hydrological connection between the Willamette River and Rinearson Creek. Continuous hydrological connection should be present. In addition, the Willamette River should overtop the remnant pond outlet and backflow into

Rinearson Creek during higher flows in order to restore function to off-channel and ACM habitats and provide habitat access to target salmonids.

The nearest gage to the site is located at Oregon City (below the falls) and is reported in feet NGVD29. Additionally, this gage is up-gradient from the Project site. In order to calibrate this gage to the Project site to assess when the invert of the roughened channel sill is backwatered by the Willamette, both the slope of the river and the vertical datum must be considered. A conservative slope of 1.66 feet per mile was used for this analysis. The water surface slope from Oregon City to Rinearson is steeper during high flows and therefore the difference in water surface elevation (WSE) between the two sites is greater during high flows. This slope creates a vertical difference in WSE of 3.25 feet between the U.S. Geological Survey (USGS) gauge at Oregon City and the Rinearson Project site.

The slope was derived from a surveyed WSE from a site visit to Rinearson during high flow. This WSE was compared with a gauge height at Oregon City from the same day and time to compute a slope.

Table 2. Gauge Calibration from Oregon City Gauge and the Project Site

	Ft NAVD 88	Ft NGVD 29
Elevation of Roughened Channel Crest	16.85	13.36
Corresponding Elevation at USGS Gauge at Oregon City	20.10	16.61

Note: USGS gauge at Oregon City (below falls). Calculation completed by Waterways Consulting.

Performance standards for hydrology and hydraulics are as follows:

1. Remnant pond outlet will be overtopped by the Willamette River surface flows when stage height exceeds 14 feet NGVD29(17.5 feet, NAVD88) as measured by the USGS #14207770 Oregon City gauging station in Years 1, 3, 5, 7, and 10.
2. No fewer than 8.5 acres of the project site will be inundated at such times when stage height on the Willamette River exceeds 21.76 feet NGVD29 (25.25 feet, NAVD88) as measured by the USGS # 14207770 Oregon City gauging station in Years 1, 3, 5, 7, and 10.

3.2.3 Sediment

No performance standard related to sediment grain size or composition is proposed for this project. Informal monitoring will take place to observe if erosion or sedimentation is occurring in a manner that could decrease the intended function of the restoration. Sediment accretion

stakes will be installed in both the Meldrum Bar and historical Rinearson Creek channels to measure sediment accretion as related to ACM area.

3.2.4 Vegetation

Vegetation composition and cover are critical parts of site restoration. Predominantly native and diverse species assemblages provide the highest quality habitat for fish and wildlife. Vegetation restoration actions vary within the site and are grouped into four vegetation management types. Each management type has specific performance standards based on the habitat type and the vegetation management actions taking place. Figure 8 shows vegetation management areas. Performance standards apply to both native and non-native vegetation.

Trustee Council's guidance documents, including the Portland Harbor Monitoring and Stewardship Framework (Trustee Council 2014), define non-native vegetation species as those species included in the Oregon Department of Agriculture (ODA) Noxious Weed List and the Portland Plant List (City of Portland 2011). In consultation with the Trustee Council's Restoration committee, a modified vegetation classification has been developed for the Project site. The monitoring plan for the Project site refers to all non-native species that will be controlled as a component of site management as "invasive species." However, for purposes of monitoring at the Project Site, cover of non-native plant species that are not considered "invasive" will be recorded in monitoring data, but not reported as contributing to the Trustee Council's performance standard for "non-native" species cover. These performance standards have thus been re-characterized in this document from their definitions within the Monitoring and Stewardship Framework to apply either to invasive species only, or to non-native species collectively, as appropriate. No change was made to the native plant species reference. A table providing a comprehensive list of "invasive" and "non-native" species is provided in Appendix F. Additionally, all species classified as "early detection and rapid response" (EDRR) species on the Portland Plant List will be immediately eradicated from the site and monitored for return.

Lack of vegetative cover due to beaver ponding will not be considered as a failure to meet site performance standards. If beaver ponds become established, the Trustee Council will be consulted on how to amend site performance standards and monitoring.

Monitoring for plant performance will start in Year 2 and continue through Year 10. Following plant installation following construction, a report will be prepared that documents the number, type, and location of the plants to monitor as well as the current percent cover of invasive and other non-native species across the site and whether or not any EDRR species were observed. This report will be submitted with the as-built drawings to document planting completed and as-built vegetation conditions of the Project site. Should planting be delayed (to add a year of

additional invasive treatment), the vegetation monitoring would also be delayed and staggered relative to other monitoring.

3.2.4.1 *Emergent Marsh*

Emergent marsh areas are within the seasonal water draw-down zone of the Project site. Vegetation communities in these areas will be restored by removing invasive vegetation, seeding with native species, and installing emergent plants. It is expected that vegetation communities within these areas will be predominantly herbaceous, but over time some of these areas may develop into a palustrine scrub-shrub or forested wetland.

Performance standards for these areas are as follows:

1. 30% or greater cover by native herbaceous plant species in Years 2 through 5.
2. 50% or greater cover by native herbaceous plant species in Year 7.
3. 70% or greater cover by native herbaceous plant species in Year 10.
4. Less than or equal to 20% cover by invasive herbaceous plant species in Years 2 through 10.
5. Plant species in the emergent marsh should include at least 5 species of herbaceous plants that provide at least 5% cover and are present in at least 10% of the monitored emergent plant plots.

3.2.4.2 *Riparian/Wetland and Upland Forest*

Riparian/Wetland Forest Restoration

There are areas of the Project site where existing weedy communities have been removed, extensive grading and clearing has taken place, and plant communities are fully restored through seeding and installation of woody plant material. This management area includes low-lying areas along the historical Rinearson Creek and Meldrum Bar channels and portions of the southeastern section of the Project site which did not feature existing forest canopy prior to the restoration activities.

Performance standards for these areas are as follows:

1. At least 1,200 living native stems per acre in Years 2 through 5.
2. At least 5 native shrub species present in Years 2 through 5.
3. At least 3 native tree species present in Years 2 through 5.
4. 30% or less cover by invasive herbaceous plant species in Years 2 through 5.

5. 55% or greater cover by native woody species in Year 7.
6. 20% or less by invasive herbaceous species and 10% or less cover by invasive shrubs in Year 7.
7. 80% or greater cover by native woody species and 10% or greater cover by native herbaceous species in Year 10.
8. 20% or less cover by invasive vegetation in Year 10.

Riparian/Wetland Forest Enhancement

This management area includes portions of forested and scrub-shrub wetland and riparian area along the banks of Rinearson Creek and the Willamette River where a partial native canopy exists with a predominantly non-native understory. Treatment in these areas will include extensive weed control. Existing native species will be preserved and supplemented with plantings where feasible.

Performance standards for these areas are as follows:

1. 30% or less cover by invasive herbaceous species in Years 2 through 5.
2. 20% or less cover by invasive herbaceous species and 10% or less of invasive woody species in Year 7.
3. 20% or less cover by invasive herbaceous and woody species combined in Year 10.
4. 80% or greater native woody species and 10% or greater cover by native herbaceous species by Year 10.

3.2.4.3 Upland/Riparian Forest Invasive Management Areas

These areas cover the majority of the site and feature established native forest canopy. Invasive species control is the only management action and no underplanting is proposed. Planting of native species could be incorporated into site management as a component of ongoing invasive species management.

Performance standards for these areas are as follows:

1. 30% or less cover by invasive herbaceous species in Years 2 through 5.
2. 20% or less cover by invasive herbaceous species and 10% or less of invasive woody species in Year 7.
3. 20% or less cover by invasive herbaceous and woody species combined in Year 10.

4. 80% or greater native woody species and 10% or greater cover by native herbaceous species by Year 10.

Chapter 4. Monitoring

The following sections present the Monitoring Plan for the Rinearson Natural Area Restoration Project site. Monitoring of the Project site is divided into four phases:

- Baseline, or pre-construction, monitoring
- Implementation monitoring
- Effectiveness monitoring
- Long-term monitoring and stewardship

The first three monitoring phases are considered the project's performance period and are related to thresholds (performance standards) set to achieve credit release. Monitoring also ensures that the site meets the broader Trustee Council's goals for restoration of natural resources injured as a result of the hazardous substance and oil release in the Portland Harbor Superfund site. Implementation monitoring will be completed in Year 0 following site construction and is achieved with as-built surveys and reports to document site topography, habitat features, and other constructed restoration elements. Effectiveness monitoring will take place in years 2 through 10. Long-term monitoring will be conducted by the site steward once the performance period is complete as outlined in the Stewardship Plan to be drafted by the Steward (once selected) and the project implementer, in coordination with the Trustee Council.

This monitoring plan relates to effectiveness monitoring and will begin after site construction and planting and remain in effect for the performance period (Years 1 through 10) or until performance standards are achieved, in consultation with the Trustee Council. The monitoring plan and performance standards follow guidance provided by the Trustee Council's Portland Harbor NRDA Monitoring and Stewardship Framework (Trustee Council 2014). Baseline monitoring follows methodology presented in this document and was conducted from summer 2013 through spring 2015; baseline monitoring results will be presented in a separate report.

4.1 Monitoring Questions

Monitoring questions have been developed by the Trustee Council with respect to project goals and objectives to guide the development of site-specific performance standards and the selection and analysis of monitoring parameters to ensure that the site functions as designed.

4.1.1 Performance Standard Questions

Monitoring questions as they relate to the site-specific performance standards along with the parameters, monitoring attributes, and the habitat types that the particular questions apply to are presented in Table 3. The Rinearson Natural Area post-restoration habitat types are depicted in Figure 7.

Performance standards for the site have been developed using the Portland Harbor NRDA Monitoring and Stewardship Framework, in conjunction with technical assistance from the Trustee Council, and will be used to assess whether the site has been constructed and is functioning as planned.

Table 3. Monitoring Questions Related to Site Performance Standards

Monitoring Questions	Monitoring Attributes	Habitat Type
Geomorphic/Structural Habitat		
Were habitat elements placed on the site as proposed in the design? Are habitat elements being retained on the site?	Retention of large wood, retention of channel design features (pools/riffles, ponded water area, channel gradient)	Tributary, off-channel, active channel margin, riparian, upland
Is the total quantity of side-channel and ACM habitat being retained over time?	Total area between OLWM and OHWM	Tributary, off-channel, active channel margin,
Does the project meet state and federal fish passage criteria? Are fish able to enter and exit the site?	Fish jump heights, appropriate stream channel gradient, adequate streamflow and depth	Tributary, off-channel
Hydrology and Hydraulics		
Does the total area of the site that is inundated by the river during periods of high flows match the design?	Lateral extent of flooding	Tributary, off-channel, active channel margin, riparian
Vegetation		
Is vegetation developing in a way that will result in a native assemblage of appropriate species?	Vegetation density/cover, community composition, native cover vs. non-native vs. invasive cover	Active channel margin, riparian, upland

4.1.2 Portland Harbor NRDA Restoration Goals Questions

Monitoring questions as they relate to the NRDA restoration goals along with the parameters, monitoring attributes, and the habitat types the particular questions apply to are presented in Table 4. The Rinearson Natural Area post-construction habitat types are also depicted in Figure 7.

Monitoring questions have been developed to address broader NRDA restoration goals for the purpose of identifying overall trends in habitat restoration for the Portland Harbor sites and to inform future strategies in design, monitoring, and management of NRDA restoration projects as set forth in the Final *Portland Harbor Restoration Plan* (NOAA 2017). These monitoring questions are not associated with thresholds that must be met to achieve Project goals related to credit release.

Table 4. Monitoring Questions Related to NRDA Restoration Goals

Monitoring Questions	Monitoring Attributes	Habitat Type
Water Quality		
Is water quality at the site improving over time and comparable to an appropriate baseline condition?	Temperature, DO, conductivity, pH	Tributary, off-channel, active channel margin
Fish and Wildlife		
How much priority habitat was restored (active channel margin, shoreline, riparian)?	Length of shoreline and area of shallow water and riparian habitats	Tributary, off-channel, active channel margin, riparian
Are native fish using the newly restored habitat? What size salmonids and lamprey are using the site?	Species presence/absence Size of salmon and lamprey	Tributary, off-channel, active channel margin
What birds are using the site? Do changes in the bird assemblage, diversity, and abundance at the site indicate that habitat quantity and quality have improved?	Relative abundance/diversity/species Habitat usage	Active channel margin, riparian, upland
Are bald eagles using the site? If so, how often and for what activities?	Bald eagle presence/absence at the site, frequency of site use, behavior and habitat elements used	Off-channel, active channel margin, riparian, upland

Monitoring Questions	Monitoring Attributes	Habitat Type
Are mink using the newly restored habitat? Has mink abundance at the site increased?	Mink presence/absence, abundance, frequency and type of site use	Tributary, off-channel, active channel margin, riparian, upland
Has the benthic macroinvertebrate community improved?	Benthic invertebrate species, abundance and diversity/richness	Tributary

NRDA restoration project monitoring parameters are described in the following sections. The monitoring schedule is included in Table 5 below.

Table 5. Monitoring Schedule

Monitoring	Monitoring Years	Months											
		J	F	M	A	M	J	J	A	S	O	N	D
Geomorphic and Structural Habitat Monitoring													
Habitat Structures	1,3,5,7 and 10									X			
Active Channel Margin	1,3,5,7 and 10									X			
Professional Topographical Survey	As built and 10									X			
Fish Passage	1 through 10									X			
Remnant Pond Hydrology	1, 3, 5, 7 and 10			X									
Vegetation													
Emergent Marsh	2-5, 7 and 10									X			
Riparian Forest Restoration Area	2-5, 7 and 10									X			

Riparian Forest Enhancement Area	2-5, 7 and 10									X				
Monitoring	Monitoring Years	Months												
		J	F	M	A	M	J	J	A	S	O	N	D	
Upland/Riparian Forest Invasive Management Area	2-5, 7 and 10								X					
Fish and Wildlife														
Native Fish	1, 3, 5, 7 and 10		X	X	X	X								
Breeding Birds	1, 3, 5, 7 and 10					X	X							
Bald Eagles	3,5,7 and 10	X	X	X	X	X	X	X	X				X	
Mink	3,5,7 and 10				X	X	X	X						
Water Quality														
O2, pH, Conductivity	1 and 2	X	X	X	X	X	X	X	X	X	X	X	X	
O2, pH, Conductivity	3, 4, 5, 6, 7, 8, 9 and 10				X									
Benthos														
	Baseline conditions and Years 1, 3, 5, 7, and 10.				X									
Pacific Lamprey														
Pacific Lamprey	1-5, 10, 15 and 20				X*									

* Pacific Lamprey Monitoring is to be conducted by USFWS pursuant to Appendix G-14. Timing of lamprey monitoring will be at the discretion of USFWS.

Chapter 5. Other Parameters to Be Monitored

Other monitoring parameters are related to NRDA restoration goals. The Trustee Council will use the information to identify overall trends in habitat restoration for the Portland Harbor and inform future strategies in design, monitoring, and management of NRDA restoration projects (Trustee Council 2014). Monitoring related to NRDA restoration goals is not associated with specific performance standards or credit release thresholds.

5.1 Native Fish

Fish have been selected by the Trustee Council as a monitoring parameter to represent aquatic feeders that were likely exposed to contaminants in the Portland Harbor. Fish monitoring will be conducted to confirm that the site is being used by the target salmonids and other native fish. Data collection will include species identification, average fish size, and approximate abundance. Sampling that requires handling of ESA-listed fish will be discontinued once their presence is verified to avoid impacts to these critical species. Fish will be sampled twice monthly from February through May in Years 1, 3, 5, 7, and 10.

5.2 Other Native Fish - Pacific Lamprey

Pacific lamprey will be monitored by the USFWS according to a lamprey monitoring plan developed by the Trustee Council that is applicable to all NRDA restoration projects in the Portland Harbor. Lamprey biological and site use data will be used to increase understanding of juvenile lamprey habitat preferences.

Lamprey monitoring will be conducted by USFWS in years 1-5, 10, 15 and 20. The monitoring effort will seek to evaluate how individual restoration projects affect Pacific lamprey (*Lampetra tridentata*), specifically their colonization and occupancy of restored habitat. Tributary/slough and confluence (tributary or slough mouths within the mainstem) habitats will be sampled in both restoration and reference sites. In wadeable habitats, USFWS will use backpack electrofishing to sample for larval lamprey. In non-wadeable habitats USFWS will use deep-water electrofishing technology to sample for larval lamprey. Concurrent to each sampling event a sediment sample will be taken (if possible) from each reach or quadrat by using a Ponar bottom sampler. Analysis of sediment samples will be conducted by a third party lab. Additional sampling, potentially including mark/recapture techniques, will be employed to evaluate the question of stranding in ephemeral tributaries.

USFWS has developed a detailed site-specific Lamprey Monitoring Plan that outlines sampling locations, monitoring techniques, and objectives. The site-specific lamprey monitoring plan can be found in the Evaluation of Portland Harbor Superfund Area Restoration: Larval Pacific

Lamprey Rinearson Natural Area Restoration Site, and supplemental Sediment Analysis Plan (Silver et al 2016). A copy of this monitoring plan is included as Appendix G-14.

5.3 Bird Assemblages

Bird monitoring will be used as an indicator of habitat structure and function. Birds were selected specifically as a monitoring parameter due to their ubiquitous presence, relative ease of monitoring, responsiveness to changing site conditions, and popularity with the general public, which will aid in communication with project stakeholders. Bird monitoring data will be collected prior to site construction to document baseline conditions and then in Years 1, 3, 5, and 10.

5.4 Mink

Mink represent the feeding guild of piscivorous mammals potentially exposed to contaminants via feeding on contaminated fish. To document mink response to the restoration project as it develops, mink will be monitored directly with camera traps, by measuring available habitat including shoreline length and riparian habitat area, and by counting habitat structures that can provide den sites. Visual surveys for tracks, scat and den sites will be conducted in potential use areas during camera trap data collection and maintenance visits, or at least twice per month. Mink monitoring will take place pre-construction and then in Years 3, 5, 7, and 10.

5.5 Bald Eagle

Bald eagles represent the feeding guild of piscivorous birds. Monitoring will determine bald eagle presence and site use (roosting, hunting, and nesting activity) over time. Bald eagle use and productivity is expected to increase as a result of restoration. Bald eagle monitoring is to take place once a week for a total of two hours per day, alternating between dawn and dusk and varying by sampling day, from mid-December through August. Monitoring will occur pre-construction and in Years 3, 5, 7, and 10.

5.6 Water Quality

Water quality monitoring is to take place at the restoration site with the goal of water quality improvement. It is expected that water quality will improve at the Project site as a direct result of restoration activities. The parameters of temperature, dissolved oxygen, pH, and conductivity will be monitored. Temperature will be monitored continuously during the performance period, and dissolved oxygen, pH and conductivity will be monitored with discrete sampling once a month during Years 1 and 2 and in the spring of Years 3 through 10.

5.7 Benthic Macroinvertebrates

Benthic macroinvertebrate communities are associated with aquatic habitat type and quality. Benthic macroinvertebrate monitoring data will be used to indicate water quality and habitat health over time. It is expected that community composition will shift following site construction as stream function is restored and water quality improves. Macroinvertebrate sampling will occur once yearly during late spring pre-construction for baseline conditions and during late spring of Years 1, 3, 5, 7, and 10.

Chapter 6. Monitoring Study Design

Monitoring methods were developed to assess site conditions with reference to performance standards and NRDA restoration goals in order to evaluate site development and guide adaptive management. Methods incorporate guidance provided in the monitoring and stewardship framework developed by the Trustee Council (2014). Monitoring will be conducted by qualified biologists. Meeting performance standards will typically indicate that the site is developing and functioning as intended. Failure to meet performance standards will trigger consultation with the Trustee Council and implementation of adaptive management to improve function and achieve desired conditions.

Monitoring methods include both qualitative and quantitative techniques and follow established scientifically sound methodology. Monitoring technique and approach vary by the monitoring year and the parameter being monitored. Monitoring methods for each parameter are described in the following sections.

6.1 Transect Locations

Permanent monitoring transects (shown as baseline transects) were established across the site oriented north-south, perpendicular to the floodplain axis of Rinearson Creek. Baselines were placed at a spacing of 100 meters from a random starting point of 1 to 100 meters from the western site boundary. A total of 7 baselines were established varying in length from 38 to 301 meters. Permanent sub-transects were established east-west, perpendicular to the baselines, at a spacing of 75 meters from a random starting point of 1 to 75 meters from the northern site boundary. A total of 5 sub-transects were established, varying in length from 81 to 566 meters. Baselines and sub-transects traverse all habitat types and project design elements (i.e. channel grading and benching areas, pond areas, etc.) and are intended as a means of organizing sampling locations. Baseline and transect locations are shown in Figure 8.

Prior to fieldwork, baseline and transect endpoint locations will be marked with capped PVC pipe and recorded with GPS. Vegetation sampling and channel cross-sections will be conducted along either baselines or sub-transects such that sampling occurs across the elevation gradient. An additional baseline has been placed perpendicular to the mouth of the Meldrum Bar Channel to facilitate monitoring of this design feature. Additional vegetation transect placement may be necessary based on sample size analysis following the first year of vegetation monitoring. Should additional samples be required, new permanent transects will be placed systematically with a random start within the grid space between baselines and sub-transects and marked accordingly.

6.2 Photo Monitoring

Permanent photo stations will be established along either the baseline or sub-transects throughout the site at key habitat areas and constructed elements during the as-built survey. Photo stations will be marked with capped PVC and locations recorded with GPS. Photo documentation will be produced from these photo stations in all years to provide a visual record of site development. Additional photographs will be collected at vegetation transect endpoints to illustrate plant community development.

6.3 Geomorphic and Structural Habitat

Geomorphic and structural habitat performance standards include criteria for large woody debris in both aquatic and terrestrial habitats, ACMS, and fish passages. Monitoring methods for each parameter are described in the following sections.

6.3.1 Habitat Structures

Habitat structures occur as both wood features installed instream in the Rinearson Creek channel below the remnant pond outlet, and as woody debris and rock and/or brush piles placed in other areas to benefit habitat. All installed wood structures within the Rinearson Creek channel below the remnant pond outlet will be retained throughout the monitoring period. The performance target for habitat structure retention placed within the Project site is as follows: 80% of the total pieces placed in aquatic and terrestrial areas upstream of the remnant pond and 100% of installed in-stream large wood pieces will be retained and present, or naturally recruited, downstream of the remnant pond. Habitat structures placed instream and within riparian/upland forested areas will be counted systematically in Years 1, 3, 5, 7, and 10 and compared to as-built survey quantities.

6.3.2 Active Channel Margin

The acreage of ACM is to remain within 10% of as-built survey acreages. ACMs are those areas between ordinary high water (OHW) and ordinary low water (OLW) that provide important habitat for both aquatic and terrestrial wildlife. ACM area will be measured by professional topographical survey during as-built documentation and in Year 10 and ACM area will be compared to as-built conditions to assess level of change. Information obtained from monitoring will be used to determine whether sedimentation or erosion is occurring in such a way that significantly affects ACM area. Due to efficiency and cost considerations, in Years 1, 3, 5, and 7 permanent channel cross-sections will be surveyed using auto level and stadia rod. Channel cross-sections will be established that are oriented perpendicular to all channels (including the outlet from the Meldrum Bar Channel) and will capture critical stream design features (Refer to Figure 8). Cross-sections will extend just beyond the ACM area to insure any change in boundary is captured. Transect endpoints will be marked with capped PVC and recorded with GPS and the same transects will be measured during each monitoring year. Cross-sections will be surveyed by extending a transect tape along the cross-section and using an auto-level and stadia rod to measure ground surface elevations at transect endpoints and at breaks in slope such as tops of slope, toes of slope, and channel inverts according to stream survey protocols established by the USFS (Harrelson et al 1994). Elevation data will be referred to local control points established by the professional survey and converted to meters, NAVD88. Elevation values will be graphed in Excel and compared to as-built conditions and previous monitoring years.

In the survey years, the entire ACM area will be visually and qualitatively assessed for evidence of sedimentation or erosion. Evidence of significant sedimentation or erosion from either visual assessment or graphical analysis will trigger a professional topographical survey in order to calculate the entire ACM area and ensure that it complies with the performance standard thresholds.

The performance target for habitat structure retention placed within the ACM is as follows: 80% of the total pieces placed in aquatic and terrestrial areas upstream of the remnant pond and 100% of installed in-stream large wood pieces will be retained and present, or naturally recruited, downstream of the remnant pond. Additionally, sediment accretion stakes will be installed in both the Meldrum Bar and historical Rinearson Creek channels to measure sediment accretion. No performance standards related to sediment accretion have been developed for the project because the project goals do not include modification or creation of specific sediment composition.

6.3.3 Fish Passage

Fish passage criteria apply to the slope of the engineered channel, the remnant pond outlet, and water availability and depth. Fish passage will be monitored once yearly during low water (August or September) in all years. The slope of the roughened channel will be measured according to the USFS stream survey protocol for assessing channel gradient (Harrelson et al. 1994).

Survey equipment will be used to measure water surface elevation at the upstream and downstream points of the channel, and the distance between the two points will be measured. Slope will be calculated by dividing the difference in water surface elevation by the measured distance.

Jump height of the remnant pond outlet and other aquatic habitats at the site intended to be accessible by fish will not exceed 6 inches. Jump height will be measured by using a measuring rod or tape and measuring from the top of the outlet to the downstream water surface and visually observation of the remaining channels. Areas in Meldrum Bar Channel or upstream from the remnant pond that appear to have a jump height greater than 6 inches will also be measured with a rod or tape. Water availability will be assessed by visually observing water discharge over the remnant pond outlet and in the wetted area within the downstream channels and by assessing accretion rates at sediment stakes.

6.4 Hydrology and Hydraulics

The performance standards associated with hydrology and hydraulics require that the Willamette River overtop the remnant pond sill when the river stage height at the Oregon City Gauging Station exceeds 17.85 feet and that a minimum of 8.6 acres of the Project site be inundated at high flow events. The monitoring method will include obtaining annual Willamette River stage height data from the USGS stream gauge #1420770, located below Willamette Falls approximately 1.95 river miles upstream of the Project site, along with water surface elevation data from piezometers installed onsite for the same time period. Analysis in years 1, 3, 5, 7 and 10 will include graphical comparison of gauge height data with the surveyed elevation of the remnant pond outlet. Area flooded will be measured by using a Digital Elevation Model (DEM) generated from a combination of topographic surveys and Light Detection and Ranging (LiDAR) data and modeling onsite water surface elevation data as obtained from the Willamette River gauges and onsite piezometers.

6.5 Vegetation

Each vegetation performance standard describes a threshold to be achieved (stem density or aerial cover), an area to be sampled (habitat type/management zone), a time frame for sampling (within Year 2 through Year 10), and a subject of the monitoring effort (herbaceous species, woody species, invasive species, etc.) to guide monitoring efforts. Over the 10-year monitoring period, multiple approaches to vegetation monitoring will be used. These approaches are based on methods outlined in the DSL’s *Routine Monitoring Guidance for Vegetation* (2009) and *Measuring and Monitoring Plant Populations* (Elzinga et al. 1998) as well as the Trustee Council’ monitoring guidance (2014). Vegetation types are shown on the planting plan (Appendix H), and monitoring approaches are summarized in Table 6. Vegetation management areas are shown on Figure 8.

Table 6. Summary of Vegetation Monitoring Methods

Year	Emergent Marsh Restoration	Riparian/Wetland Forest Restoration	Riparian/Wetland Forest Enhancement	Upland/Riparian Forest Invasive Management
1	Site-wide stem mapping for all zones to document plant species, numbers, and placement.			
2-5	Aerial cover: 1m ² quadrats	Stem counts: 2m x 10m for woody species; Aerial cover: 1m ² nested quadrats for herbaceous species	Aerial cover: 1m ² quadrats	Aerial cover: 1m ² quadrats
6	Qualitative	Qualitative	Qualitative	Qualitative
7	Aerial cover: 1m ² quadrats	Aerial cover: Line intercept	Aerial cover: Line intercept	Aerial cover: 10m plots with nested 1m ² quadrats
8	Qualitative	Qualitative	Qualitative	Qualitative
9	Qualitative	Qualitative	Qualitative	Qualitative
10	Aerial cover: 1m ² quadrats	Aerial cover: Line intercept	Aerial cover: Line intercept	Aerial cover: 10m plots with nested 1m ² quadrats

6.5.1 Emergent Marsh Restoration Area

The development of the herbaceous emergent wetland vegetation community will be monitored in areas within the draw-down zone after pond restoration activities are complete. Community

composition and percent cover of each species will be determined via visual cover estimates in 1m² quadrats placed along sub-transects. Plot spacing will be such that a minimum of 10 quadrats are sampled in Year 2. Sample size analyses will be conducted in subsequent years using field-collected data.

Species richness and diversity will also be determined. Sampling is to occur within this habitat type in Years 2 through 5, 7, and 10.

6.5.2 Riparian/Wetland Forest Restoration Area

This area encompasses originally non-native-dominated wetland and riparian areas in the southeastern section of the Project site, as well as much of the island formed by Meldrum Bar Channel and the historical Rinearson Creek channel in the western section. Extensive grading and clearing, removal of weedy communities, and full restoration of plant communities through the installation of plant material will have occurred in this area before Project construction. In Years 2 through 5, forest restoration areas will be monitored for the survival of plantings and re-establishment of invasive species. Native plant density and diversity will be measured using rectangular quadrats measuring 2 meters x 10 meters. Quadrats will be centered along the sampling sub-transects; quadrat length will be measured with a measuring tape; quadrat width will be measured by holding a 1 meter dowel along the transect tape. All living woody native and non-native stems occurring within the quadrat will be identified to species level and counted. Invasive cover where observed would be reported as well. The total stem count will be divided by the total area sampled to calculate density. Non-native and invasive herbaceous species cover will be determined via visual cover estimates in 1m² quadrats nested within the 2 meter x 10 meter quadrat. Plot spacing in Year 2 will be such that a minimum of 15 quadrats are sampled; sample size for subsequent monitoring years will be based on sample size analysis.

In Years 7 and 10, aerial cover of native woody, invasive, and other non-native herbaceous and woody species will be measured. Cover will be determined using the line intercept method wherein a measuring tape will be extended along the sampling sub-transect and species occurrence intervals will be recorded. Intervals along the tape will then be calculated as percent cover. With this method, each transect is a sampling unit; additional transects will be placed such that a minimum of 20 sampling units are measured in Year 7. Sample size for Year 10 will be based on sample size analysis.

6.5.3 Riparian/Wetland Forest Enhancement Area

This area encompasses smaller portions of existing forest or scrub-shrub communities where treatments included extensive weed control with supplemental understory planting where feasible. In Years 2 through 5, forest enhancement areas will be monitored for invasive

herbaceous cover via visual cover estimates in 1m² quadrats placed along transects. Plot spacing in Year 2 will be such that a minimum of 15 quadrats are sampled; sample size for subsequent monitoring years will be based on sample size analysis.

In Years 7 and 10, aerial cover of native woody and invasive and other non-native herbaceous and woody species will be measured. Cover for all years will be determined using the line intercept method described above. Additional transects will be placed such that a minimum of 20 sampling units are measured in Year 7. Sample size for Year 10 will be based on sample size analysis.

6.5.4 Upland/Riparian Forest Invasive Management Area

Invasive species management areas define the majority of the project site. In these areas, dense native forest canopy cover is established, so invasive species control will be the only management action and no underplanting is proposed. In Years 2 through 5, cover of invasive and other non-native species will be measured using the line intercept method. In years 7 and 10, circular plots will be established with a radius of 10 meters along transects, spaced in such a way to allow a minimum of 15 independent plots. In each plot, 10-meter-long transects will be established in each cardinal direction from the center point of the plot, and native, invasive and other non-native understory species will be measured using line intercept. Canopy composition will be also recorded, and cover will be determined with densiometer readings recorded at the end of each sampling transect.

6.5.5 Statistical Analysis

Statistical analysis will be conducted on vegetation data for the purpose of determining whether performance standards are being met and to ensure that data collected adequately represent onsite conditions. Analysis methods applied to data are based on DSL Routine Monitoring Guidance (DSL 2009) and Trustee Council's monitoring framework documents and project guidance to the project implementer (2014), as well as those methods outlined in Elzinga et al. (1998).

Random Distribution of Sample Units

The importance of random sampling was addressed in the vegetation monitoring study design. First, although permanent baselines and sub-transects were installed on the site, their locations were randomized. The first baseline and vegetation sub-transect was located using a number selected from a random numbers table and measuring from the boundary. Second, randomized sampling is incorporated in sampling plot placement: plots are placed systematically from a random start along the transect. In subsequent monitoring years, new plots will be established

in this way. Using systematic placement of sampling plots and sub-transects and plots ensures interspersed samples throughout habitat types and management areas.

Power and Confidence Level

The sampling objectives were developed to address concerns regarding the reliability of the vegetation data and to determine if the site is meeting the performance standards. The proposed target confidence level, or power, for the sampling effort at the mitigation site is to be 80% certain that the reported sample mean falls within a statistical confidence interval width of 10% of the mean. The confidence intervals will be calculated using the data obtained on vegetation cover. The following confidence interval half width calculation³ will be used to determine the intervals reported in the monitoring reports:

$$\left[\left\{ (Z_{\alpha}) \sqrt{\frac{pq}{n-1}} \right\} + \frac{1}{2n} \right]$$

These targets meet the rigor that DSL applies in their vegetation monitoring program and will give precision in reporting a population mean for the Project site.

Sample Size Analysis

One of the primary sampling objectives is to precisely estimate the sample mean. Sample size analyses are conducted to determine how much sampling is needed to meet the desired confidence level. Sample size equations are predicated on two assumptions: first, that sample units are randomly positioned, which has been addressed with the systematic sampling with a random start approach for baselines, transects, and plots; and second, that the sample means of the dataset have a normal distribution.

For Year 2 vegetation monitoring, a minimum number of samples will be obtained based on the total area of the management area sampled per DSL and Trustee Council guidance. Sample size statistics will be calculated using Year 2 vegetation cover data to determine subsequent years'

³ Where Z_{α} = the standard normal coefficient (1.28 for 80% confidence level); p = the value of the proportion as a decimal percent; $q = 1-p$; and n = the sample size.

sample sizes. The following equation will be applied to determine the uncorrected sample size estimate⁴ for each management area:

$$n = \frac{(Z_{\alpha})^2(p)(q)}{d^2}$$

The monitoring study design in subsequent monitoring years will be modified to reflect sample size analysis results. Sample size analysis will be performed in each monitoring year to ensure sampling is adequate for the purpose of determining compliance with vegetation performance standards.

6.6 Fish and Wildlife

Fish and wildlife monitoring will be conducted by qualified fisheries and wildlife biologists.

6.6.1 Native Fish

Native fish monitoring will include presence/absence surveys and will occur twice per month from February through May in Years 1, 3, 5, 7, and 10. Species and size class of each fish observed during surveys will be recorded. Stream length and width will also be recorded and the number of fish observed will be divided by the area of stream surveyed to determine fish density in units of fish per square meter. Abundance and frequency graphs will be produced with recorded data.

Fish sampling will utilize multiple methods based on stream reach size, turbidity, and hydrology. In the waters, upstream of the remnant pond, which have adequate clarity and are wadable, snorkel surveys will be conducted. Snorkel survey methods or other non-invasive methodologies are based on field protocols outlined in Chapter 10 of the *Salmonid Field Protocols Handbook* (O' Neal 2008). A qualified biologist will immerse a snorkel mask in the water and observe for fish numbers and species. Sampling will be conducted in a zig-zag pattern, moving in an upstream direction, to capture stream margins; eddies behind logs and boulders and areas underneath log jams and undercut banks will also be examined. Sampling will occur in late morning to early afternoon. In the remnant pond area and Meldrum Bar Channel, where the

⁴ Where n = the uncorrected sample size estimate; Z_{α} = the standard normal coefficient (1.28 for 80% confidence level); p = the value of the proportion as a decimal percent; $q = 1-p$; and d = the precision level (equals the maximum acceptable confidence interval half width).

channel area is large and waters are turbid and too deep to wade, beach seining surveys will be conducted. Beach seining survey methods are based on Chapter 9 of the *Salmonid Field Protocols Handbook* (Hahn et al. 2008). A seine net will be deployed from a non-motorized boat within the pond and the Meldrum Bar Channel. Once a ESA-listed fish has been identified, surveys will continue using observational monitoring to avoid impacts to these critical species.

Lamprey monitoring will be conducted by USFWS pursuant to Appendix G-14.

6.6.2 Breeding Birds

The breeding bird survey was designed utilizing the habitat-based bird monitoring point count protocol discussed by Brown and Huff (2000). Baseline monitoring for birds was conducted pre-construction disturbance. A total of 15-point count stations (PCS) were established during baseline monitoring: 8 located in riparian habitat and 7 located in upland forest habitat. Each PCS location was assigned an identification number, recorded with GPS, and marked with flagging. In order to maximize the number of PCSs within the project site boundaries, distances between PCSs varied between 30 and 125 meters. Bird sampling is to occur three times per month spread out during the peak breeding season, generally from May 15 through the end of June. Sampling events will commence 30 minutes before legal sunrise, and the first PCS for each sampling event will be varied to minimize sampling bias. Each PCS will be monitored for 5 minutes, and bird species will be identified visually and aurally. Data for each bird recorded will include cardinal direction and distance from the PCS, if the observation was by sight and/or by sound, if the bird was calling and/or singing when birds vocalized, and movement of the bird. Environmental conditions will also be recorded at each PCS.

Data will be analyzed and presented following guidance from Brown and Huff (2000), which suggests data from breeding bird surveys “should be communicated in a way that clearly reflects the method and can be repeated by others.” Since birds will be counted at individual stations over a 5-minute period, results will be presented in terms such as “6 birds per station.” These units communicate that if an observer monitors one station for 5 minutes, they would likely see 6 birds. These values can also be averaged over the entire site. To determine the birds per station for each species observed, data will be analyzed using the following formula:

Birds per Station = Sum of Individuals Recorded for All Visits/ (Number of Survey Days x Number of Stations).

To minimize sampling errors, only birds detected within 50 meters of a PCS will be used to calculate birds per station because detection rates begin to rapidly vary and decrease beyond this distance.

Data will be used to document species occurrences, proportionate species abundances, species richness and how bird assemblages change over time.

6.6.3 Bald Eagles

Bald eagles will be monitored with presence/absence surveys, designed in accordance with McGarigal et al. (1991) to assess bald eagle usage onsite. The survey design involves recording observations from 3 monitoring stations to maximize observation opportunity. Monitoring stations have been recorded with GPS and marked in the field with flagging. Sampling events are to occur weekly, for a total of two hours, from mid-December through August during Years 3, 5, 7, and 10 (pre-construction baseline conditions surveys occurred in 2014 and 2015). Sampling events will alternate in timing each week, occurring at either dawn or dusk, and will coincide with periods of highest anticipated eagle activity. The starting monitoring station for each sampling event will vary to minimize sampling bias. During each survey, approximately one-half hour will be spent at each monitoring station, and approximately 10 minutes will be spent traveling between each monitoring station. Routes between stations allow for active eagle searching onsite. Data to be collected will include observation by general activity (e.g., perching, directional flight, soaring flight, foraging attempt, etc.), specific activity (e.g., prey pursuit, hunting, resting, handling prey, feeding self, etc.), habitat type (e.g., open water, mud flat, old-growth conifer, etc.), perch substrate (e.g., tree species, piling, driftwood, ground, etc.), and weather conditions (i.e., cloud cover, precipitation, and wind speed). Time of day, duration of activity, and height above water (estimated visually) will also be recorded. Locations of eagle observations will be mapped and will include behaviors observed. Hunting tactic (direct predation of live prey, scavenging, pirating), outcome (successful, unsuccessful), prey species, and prey size for foraging attempts will be recorded where possible.

6.6.4 Mink

Mink will be monitored with presence/absence surveys consisting of a two-part design: 5 camera trap stations, similar to those discussed by McKinney and Haines (2010), will be used and active visual searches for tracks and scat will also be conducted. Pre-construction baseline conditions surveys occurred in 2014. Camera trap stations are located in ACM habitats and will be equipped with Browning Strike Force infrared motion-detection cameras with 16 GB memory cards. Cameras will be programmed to take a series of four pictures 0.3 seconds apart and with a 4-second delay between each series. Each camera trap station will feature a 0.5-meter wood stake placed 3 meters away from the camera baited with Three Rivers Mink scent lure to attract mink. All stations will be serviced twice monthly from mid-April through mid-July (at a minimum) in Years 3, 5, 7, and 10, during which time memory cards will be retrieved, camera functionally tested, and scent lure applied. Visual searches will also be conducted during these

visits within target habitats, particularly open areas featuring sandy or muddy substrates, for tracks and scat. Visual sampling events will be conducted approximately one hour following legal sunrise to minimize corruption of tracks and scat, observations of which will be recorded and mapped.

Mink photographs will be stored digitally. Efforts will be made to identify individual mink according to distinctive face and chest markings in order to assess the number of individuals using the site.

6.7 Water Quality

Water quality data will be collected at the Project site as described in Section 5.6 and shown in Table 5. Temperature collection will be ongoing at the remnant pond outlet. DO, pH, and conductivity will be conducted on water samples collected at each of the sub-habitats sampled within the tributary habitat. These samples will be submitted to a lab for analysis.

6.8 Benthic Macroinvertebrates

Benthic macroinvertebrates will be part of the monitoring program as indicators of habitat health. Benthic macroinvertebrates will be collected and analyzed for species present, abundance, and diversity/richness.

Monitoring methods for the benthic macroinvertebrate community at the Project site have been developed with guidance from a sub-group of the Portland Harbor restoration committee, Oregon Department of Environmental Quality (DEQ)'s Water Monitoring and Assessment Mode of Operations Manual (DEQ 2009), and the Water Quality Monitoring Technical Guide Book (Oregon Watershed Enhancement Board [OWEB] 1999), as well as consultation with The Xerces Society in Portland, Oregon. Following Trustee Council guidance, a Level 3 protocol will be used at the site as it provides the best measure of stream condition using macroinvertebrates as the indicator.

Sample locations will be situated where transects or sub-transect cross the tributary habitat type and will include samples downstream of the remnant pond outlet, at the pond fringes, in the emergent marsh, and upstream of the emergent marsh in an intact reach of Rinearson Creek as a reference reach. The Project site has different sub-habitats within the tributary habitat where different macroinvertebrate communities exist. These sub-habitat types must be treated as individual samples for conducting identification and analysis. Collection efforts will take place in late spring Years 1, 3, 5, 7, and 10; pre-construction baseline condition surveys took place in late spring 2015 prior to construction. Sample timing will avoid transition months between seasons or during high flow events. According to the Water Quality Monitoring Guidebook, the

most effective periods for macroinvertebrate sampling include March through June and October through early November.

Sample protocols will differ slightly between sample sites depending on whether the site is within the tributary stream reach (downstream of the remnant pond outlet and upstream of the emergent marsh in an intact reach of Rinearson Creek), ponded water, or emergent wetland. The goal of sampling at each of the sites is to obtain a representative but random sample of the macroinvertebrate community, and different equipment and methods will be used to do this.

6.8.1 Tributary Stream Reaches

Tributary stream reaches are located downstream of the remnant pond outlet in the Meldrum Bar Channel and upstream of the emergent marsh in an intact reach of Rinearson Creek. Four sample locations have been located using the permanent transect or sub-transect that crosses each of these tributary reach types (Figure 8). At each of the four locations, two kick net locations will be randomly selected for macroinvertebrate sampling. This differs slightly from the standard DEQ protocol since the stream reaches at the Project site do not have enough riffle area to conduct the standard protocol. Collectors will use kick nets placed on the bottom of the channel perpendicular to the flow to capture macroinvertebrates, debris, and sediments that are loosened by disturbing the stream bottom upstream of the net. Both of the samples taken at each of the four sites will be combined into a composite sample, but the samples for below the remnant pond outlet and above the pond (reference) will be treated as individual samples and analyzed separately. Net samples will be treated with the standard sorting, rinsing, and storage protocols outlined in the DEQ and OWEB methods and will be sent to a qualified lab for identification.

6.8.2 Emergent Marsh Wetland and Pond Fringe

Sample methods for the ponded and wetland areas closely follow methods developed by The Xerces Society specifically for wetlands (as opposed to wadeable stream methodologies). Sampling should be conducted when water is 0.3- to 1-meter deep and where emergent vegetation is present. Using a D-frame net, two net sweeps at four locations will be taken at sampling locations along the permanent transects that cross the emergent wetland habitat and pond fringes (Figure 8). The two net sweeps will be taken in rapid succession adjacent to one another. The eight net sweeps will be combined into a composite sample for the emergent marsh area and remnant pond area. Net samples will be treated with the standard rinsing and storage protocols outlined in the DEQ and OWEB methods and will be sent to a qualified lab for identification.

6.8.3 Macroinvertebrate Data Analysis

Level 3 assessments are based on genus-and species-level identifications which provide more detail on the macroinvertebrate community and on the habitat condition. Appropriately stored specimens will be sent to the lab for identification and analysis conducted with the assistance of The Xerces Society. Data analysis on the four sub-habitats found in the tributaries will be conducted using a multimetric analysis combined with use of the PREDATOR model (Predictive Assessment Tool for Oregon; [Hubler 2008]). PREDATOR is a predictive model that has been developed for two major regions in Oregon: the Marine Western Coastal Forest (Willamette Valley and Coast Range ecoregions) and the Western Cordillera and Columbia Plateau (Klamath Mountain, Cascades, East Cascades, Blue Mountains, and Columbia Plateau ecoregions). The model compares observed taxa at a site with expected taxa that may be found in intact reference sites that share similar physical, chemical, and biological conditions. It is assumed that a Level 3 assessment of the macroinvertebrate community will allow for the completion of a multimetric analysis that includes the following metrics:

- Taxa richness (# of taxa at site)
- *Ephemeroptera* (mayfly) richness
- *Plecoptera* (stonefly) richness
- *Trichoptera* (caddisfly) richness
- Number of sensitive taxa
- Number of sediment-sensitive taxa
- % dominance of the top taxon
- % tolerant taxa
- % sediment-tolerant taxa
- Pollution tolerance using the Modified Hilsenhoff Biotic Index (MHBI)

Data from the multimetric analysis and scores from the PREDATOR model will be compared from year to year as the site develops, through Year 10.

Also of interest for the Project site is the possible presence of freshwater mussels. No current records of mussel survey effort in Rinearson Creek exist. According to The Xerces Society databases, *Margaritifera falcata* were found a mile downstream at the confluence of the Willamette and the Clackamas River in 1944 and about a mile upstream of the Project site in 1935 (waterway not known, possibly the Willamette). *Anodonta spp.* were also found in the

Willamette near Mary S. Young Park, just to the northwest of the confluence of Rinearson Creek and the Willamette, in 1997 by Al Smith (Mazzacono, Xerces Society, pers. comm. 2014). No other survey efforts are documented in this area. The Xerces Society would assist in mussel surveys for this macroinvertebrate group in locations within the Project site most likely to contain them.

6.9 Results and Reporting

Results from monitoring will be stored in a project database with associated spatial data wherever applicable and provided to the Trustee Council. Formal monitoring reports that include a full account of methods and present results of data analysis will be prepared and submitted to the Trustee Council in Years 1, 2, 3, 4, 5, 7, and 10. Analysis methods will follow those outlined in Table 3 from the Portland Harbor NRDA Monitoring and Stewardship Framework (Trustee Council 2014). In Years 6, 8, and 9 a brief memorandum will be prepared that summarizes monitoring data from parameters requiring annual efforts (including but not limited to fish passage) and includes qualitative site observations recorded during site visits. During all years monitoring reports will include a summary of whether or not relevant performance measures were met and whether any adaptive management actions are recommended for Trustee Council consideration. During all years monitoring reports will also include a log of all maintenance or adaptive management activities conducted during the year, including but not limited to activities such as invasive plant management, trash removal, native vegetation planting, and site visits to check for trespass. The log will describe the date, level of effort (number of individuals or labor hours), and a description of the work performed. Monitoring reports shall be submitted to the Trustee Council by December 31 of each year to capture data collected from November 1 through October 31 of that year. Any observed issues that require immediate response, such as the presence of fish passage barriers, will be reported to the Trustee Council immediately after they are identified.

6.10 Adaptive Management Framework

The Project will be monitored and managed in an adaptive management framework to guide site development to meet project goals. Interim performance standards and general monitoring observations will be used to evaluate the site as it develops. Achievement of interim performance standards indicates the site is developing as intended, and current site management approaches are effective. In the case that interim standards are not achieved, adaptive management actions can be implemented to make adjustments to the site trajectory and ensure that the site ultimately meets final performance standards. If, during a given monitoring year, a performance standard is not achieved, consultation with the Trustee Council

and the project implementer will be triggered. In the consultation, possible causes for failing the performance standard will be investigated and supplementary data, if applicable, will be obtained and reviewed. Should findings indicate that a performance standard and/or monitoring method are inappropriate for assessing site performance, adjustments may be necessary. If the failure to meet the performance standard was due to site performance then contingency measures, such as additional vegetation management or adjustments to geomorphic structures, may be implemented. While funding for adaptive management will be provided by the project implementer, funding decisions will be jointly managed by the Trustee Council and the project implementer. Contingency measures have been identified for each interim performance standard and are listed below in Table 7 along with associated performance standards and monitoring methods. Proposed contingency measures are subject to review and mutual revision by the project implementers and the Trustee Council.

If at the end of the performance period, the site has met 90% or more of its performance standards and other requirements under the Credit Release Schedule (Appendix G-1) have been fulfilled, a full credit release will be granted. Further management actions, if required by the Trustee Council, will be funded through the long-term stewardship fund and implemented by the long-term steward. If the site has met less than 90% of its final performance standards, the project implementer may either: 1) allocate additional funding to adaptive management actions that will satisfy performance standards; or 2) accept a reduction in the project's credit value.

Table 7. Rinearson Natural Area Project Site Interim Performance Standards

Habitat Type	Performance Standard	Monitoring Method	Contingency Measure
Geomorphic/Structural Habitat Elements			
Active Channel Margin/Aquatic	100% of installed in-stream large wood pieces will be retained and present downstream of the remnant pond outlet in Years 1, 3, 5, 7, and 10.	Complete count, comparison to as-built survey.	Installed wood is part of channel design; loss of wood structures indicates failure of channel design. Review and reconfiguring of channel design along with additional installation of wood may be necessary.
Active Channel Margin/Aquatic	80% of placed aquatic large wood pieces and structures will be retained and present upstream of the remnant pond outlet in Years 1, 3, 5, 7, and 10.	Complete count, comparison to as-built survey.	Additional wood may be placed.
Riparian/ Upland Forested	80% of placed terrestrial habitat structures will be retained and present within upland and riparian areas in Years 1, 3, 5, 7, and 10.	Complete count, comparison to as-built survey.	Additional wood may be placed.
Active Channel Margin	ACM acreage will not decrease by more than 10% compared to as-built drawings in Years 1, 3, 5, 7, and 10.	Years 1, 3, 5, and 7: Permanent channel cross-sections at established baselines/transects with elevation recorded at topographic breaks, visual assessment for evidence of erosion/sedimentation. Year 10: Professional survey, comparison to as-built survey.	Reconfiguring channel design or the addition of large wood structures to manage sedimentation/erosion. Professional survey to take place before Year 10 if significant erosion/sedimentation is observed.

Aquatic	Fish Passage: The engineered channel gradient will not exceed 4% slope	Slope measurement using survey equipment in Years 1-10	Reconfiguring of channel design/installation of grade control structures. Reconfiguring of remnant pond outlet to maintain fish passage.
Habitat Type	Performance Standard	Monitoring Method	Contingency Measure
Aquatic	Fish Passage: Jump heights will not exceed 6 inches	Measure jump heights (water surface to outlet top).	Reconfiguring of channel design/installation of grade control structures. Reconfiguring of remnant pond outlet to maintain fish passage.
Aquatic	Fish Passage: Remnant pond outlet will discharge continuously	Observe water level in channels downstream of structure once yearly during low water.	Reconfiguring of channel design/installation of grade control structures. Reconfiguring of remnant pond outlet to maintain fish passage.

Aquatic	Fish Passage: Channel thalweg downstream of the water control structure will remain wetted during low water conditions in Years 1-10.	Observe water level in channels downstream of structure once yearly during low water.	Reconfiguring of channel design/installation of grade control structures. Reconfiguring of remnant pond outlet to maintain fish passage.
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Habitat Type	Performance Standard	Monitoring Method	Contingency Measure
Vegetation			
Emergent Marsh Restoration – Areas within draw-down zone after pond modification	30% or greater cover by native herbaceous plant species in Years 2-5.	Visual cover estimate using systematic placement of 1m ² quadrats with random start along permanent sub-transects. Spacing to include a minimum of 20 plots. Analyses to include sample size. Analyses, sample mean with 80% confidence interval for native, invasive and other non-native species, native species richness/diversity per plot.	Invasive vegetation control. Exclusion fencing to prevent grazing by wildfowl. Possible installation of seedling plugs to aid establishment of diverse native emergent species.
	50% or greater cover by native herbaceous plant species in Year 7.		
	70% or greater cover by native herbaceous plant species in Year 10.		
	Less than or equal to 20% cover by invasive herbaceous plant species in Years 2-10.		
	Plant species will include at least 5 species with 5% cover present in at least 10% of monitoring plots.		
Riparian/ Wetland Forest Restoration – Areas where existing weedy communities have been removed, extensive grading and clearing has taken place, and	At least 1,200 living native stems per acre in Years 2-5.	Stem count of native trees/shrubs. Visual cover estimation of non-native and invasive herbaceous species. Density measured using systematic placement of 2m x 10m rectangular quadrats with random start located along center of permanent sub-transects, non-native and	Invasive species control. Re-vegetation using species most suitable to conditions to increase cover/diversity.
	At least 5 native shrub species present in Years 2-5.		
	At least 3 native tree species present in Years 2-5.		

Habitat Type	Performance Standard	Monitoring Method	Contingency Measure
plant communities are fully restored.	30% or less cover by invasive herbaceous plant species in Years 2-5.	invasive herbaceous cover measured with nested placement of 1m ² quadrat at a spacing to allow a minimum of 20 plots. Analyses to include sample size, sample mean with 80% confidence interval for native, invasive and other non-native species, native species richness/diversity per plot.	
	55% or greater cover by native woody species in Year 7.	Line intercept along permanent sub-transects. Spacing to include minimum of 10 transects. Analyses to include sample size. Analyses, sample mean with 80% confidence interval for invasive and other non-native species.	
	80% or greater cover by native woody species and 10% or greater cover by native herbaceous species in Year 10.		
	20% or less cover by invasive vegetation in Year 10.		
Riparian/ Wetland Forest Enhancement – Areas where treatments include extensive weed control in areas of existing forest or scrub-shrub communities; native species are preserved and supplemented with plantings where feasible.	30% or less cover by invasive herbaceous species in Years 2-5.	Visual cover estimate using systematic placement of 1m ² quadrats with random start along permanent sub-transects. Spacing to include a minimum of 20 plots. Analyses to include sample size, sample mean with 80% confidence interval for native, invasive, and other non-native species.	Invasive species control. Re-vegetation using species most suitable to conditions to increase cover/diversity.
	20% or less cover by invasive herbaceous and 10% or less of invasive woody species in Year 7.	Line intercept along permanent sub-transects. Spacing to include a minimum of 10 transects. Analyses to include sample size, sample mean with 80% confidence interval for invasive and other	
	20% or less cover by invasive herbaceous and woody species combined, in Year 10.		

Habitat Type	Performance Standard	Monitoring Method	Contingency Measure
	80% or greater native woody species and 10% or greater cover of native herbaceous species by Year 10.	non-native species.	
Upland/Riparian Forest Invasive Management Areas – Areas with established native canopy where invasive species will be controlled as only management action and no underplanting has taken place.	30% or less cover by invasive herbaceous species in Years 2-5.	Visual cover estimate using systematic placement of 1m ² quadrats with random start along permanent sub-transects. Spacing to include a minimum of 20 plots. Analyses to include sample size, sample mean with 80% confidence interval for native, invasive, and other non-native species.	Invasive species control.
	Forest invasive management areas will have 20% or less cover by invasive herbaceous and 10% or less of invasive woody species in Year 7.	Visual cover estimation of native, invasive, and other non-native species using systematic placement of 10m circular plots with random start along permanent sub-transects and sampled with line intercept in each cardinal direction. Densiometer readings to occur at the end of each line. Analyses to include sample size, sample mean with 80% confidence interval for native, invasive, and other non-native species.	
	Forest invasive management areas will have 20% or less cover by invasive herbaceous and woody species combined, in Year 10.		
	Forest enhancement areas will have 80% or greater native woody species and 10% or greater cover native herbaceous species by Year 10.		
Hydrology and Hydraulics			

Habitat Type	Performance Standard	Monitoring Method	Contingency Measure
Aquatic	Remnant pond outlet will be overtopped by the Willamette River surface flows when stage height exceeds 14 feet NGVD 29 (17.5 feet NAVD88) as measured by the USGS #14211720 Oregon City gauging station in Years 1, 3, 5, 7, and 10.	Daily mean stage height data from USGS Oregon City; elevation survey of crest of remnant pond outlet.	Reconfigure remnant pond outlet/channel design and/or install grade control structures to manage erosion to achieve floodplain connection.
Aquatic/Active Channel Margin	No less than 8.5 acres of the project site will be inundated at such times when stage height on the Willamette River exceeds 21.76 feet NGVD29 (25.25 feet, NAVD88) as measured by the USGS #14211720 Oregon City gauging station in Years 1, 3, 5, 7, and 10.	Analyses to include graphical and quantitative calculation of river stage height vs. height of water control structure.	

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1
FIGURE

Project location map

RINEARSON NATURAL AREA
HABITAT DEVELOPMENT PLAN
DECEMBER 2018

 **WATERWAYS**
CONSULTING, INC.
Santa Cruz, CA | watways.com | Portland, OR



2

FIGURE

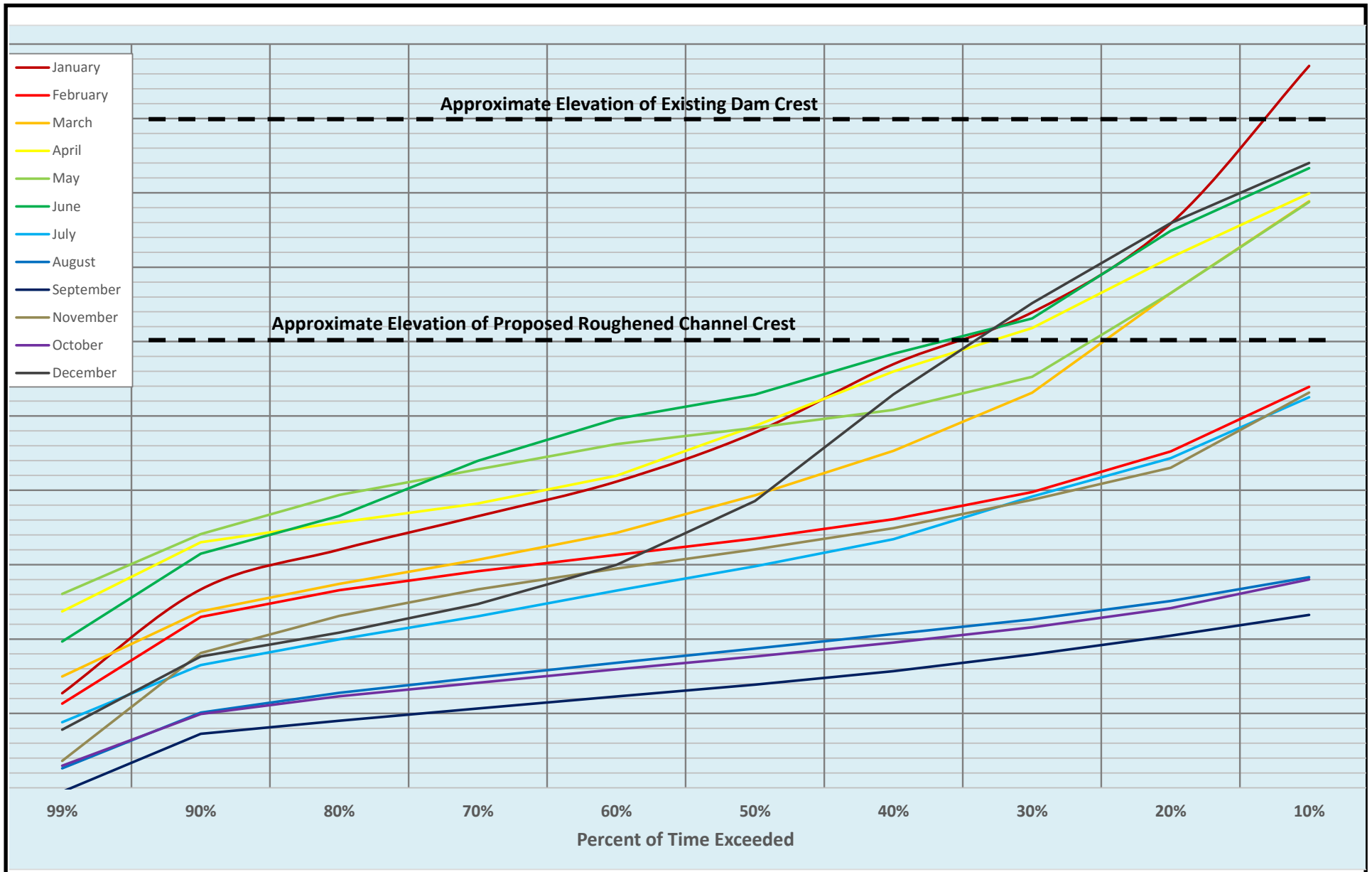
EXISTING SITE CONDITIONS

RINEARSON NATURAL AREA

HABITAT DEVELOPMENT PLAN
DECEMBER 2018

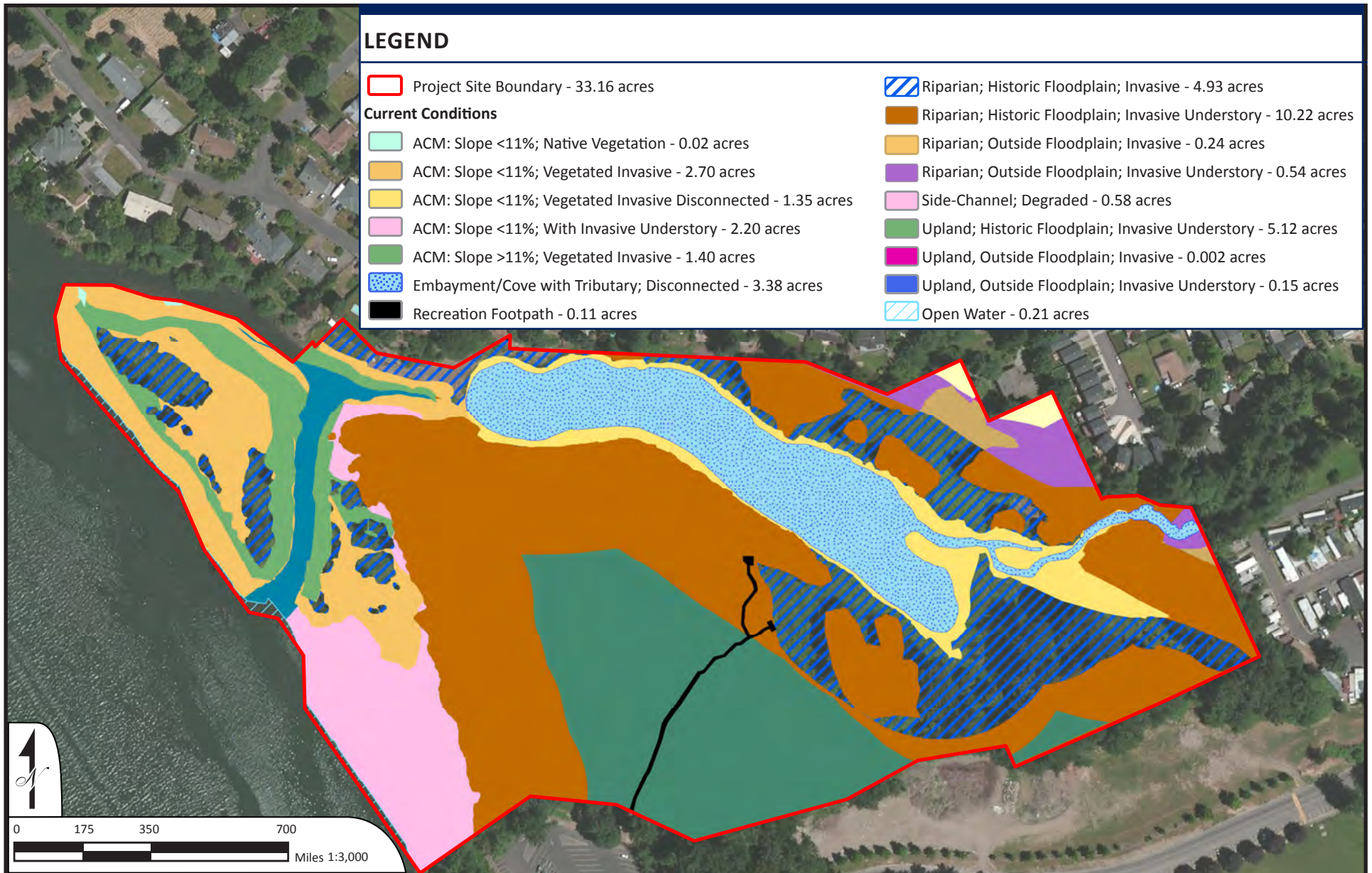


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3 FIGURE

Monthly inundation frequencies at the Rinearson Natural Area based on Willamette River stage. The data depicts the percentage of time water surface elevations on the Willamette will exceed a particular elevation and inundate portions of the site. The existing dam crest and proposed roughened channel crest are also shown.

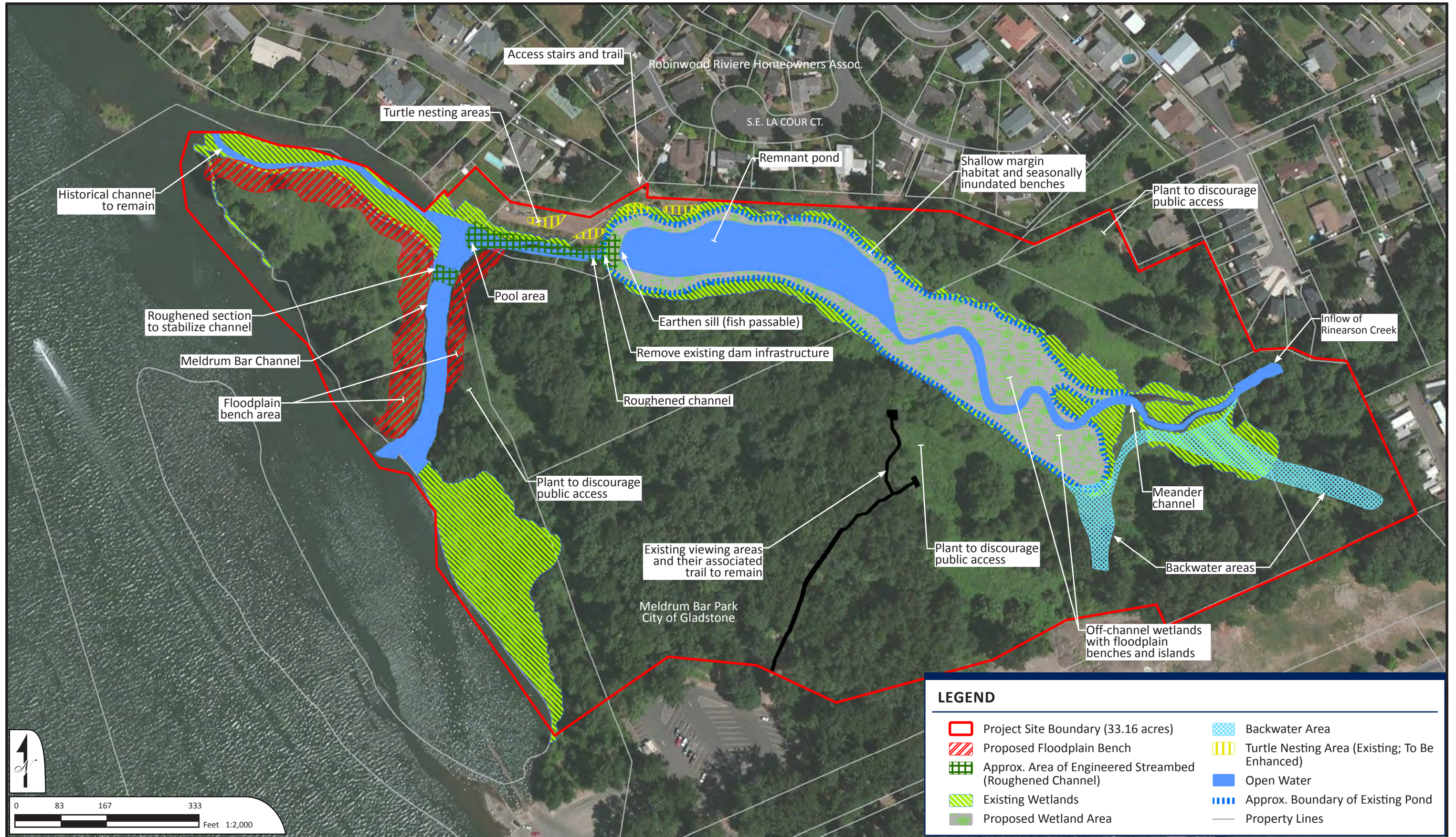


5
FIGURE

Existing Habitats

RINEARSON NATURAL AREA
HABITAT DEVELOPMENT PLAN
DECEMBER 2018



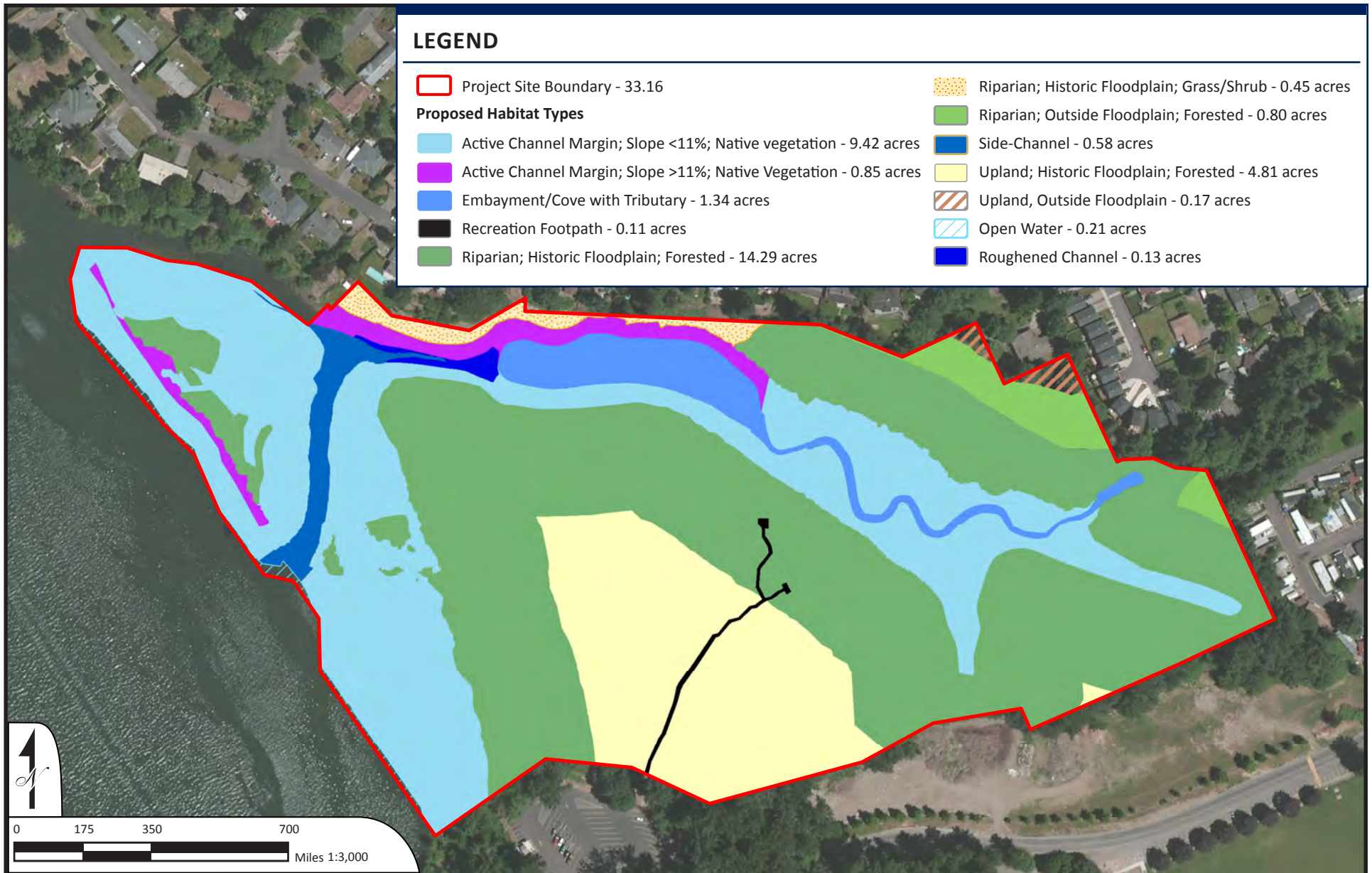


Overview of the proposed restoration actions for the Rinearson Natural Area. The features are conceptual and are meant to provide a general understanding of the habitat features and elements proposed for the project area. Addition detail on the specific extents, elevations, and boundaries of the proposed features can be found in the engineering drawings and planting plan.

Proposed Restoration Actions

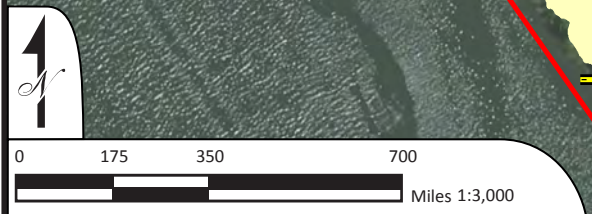
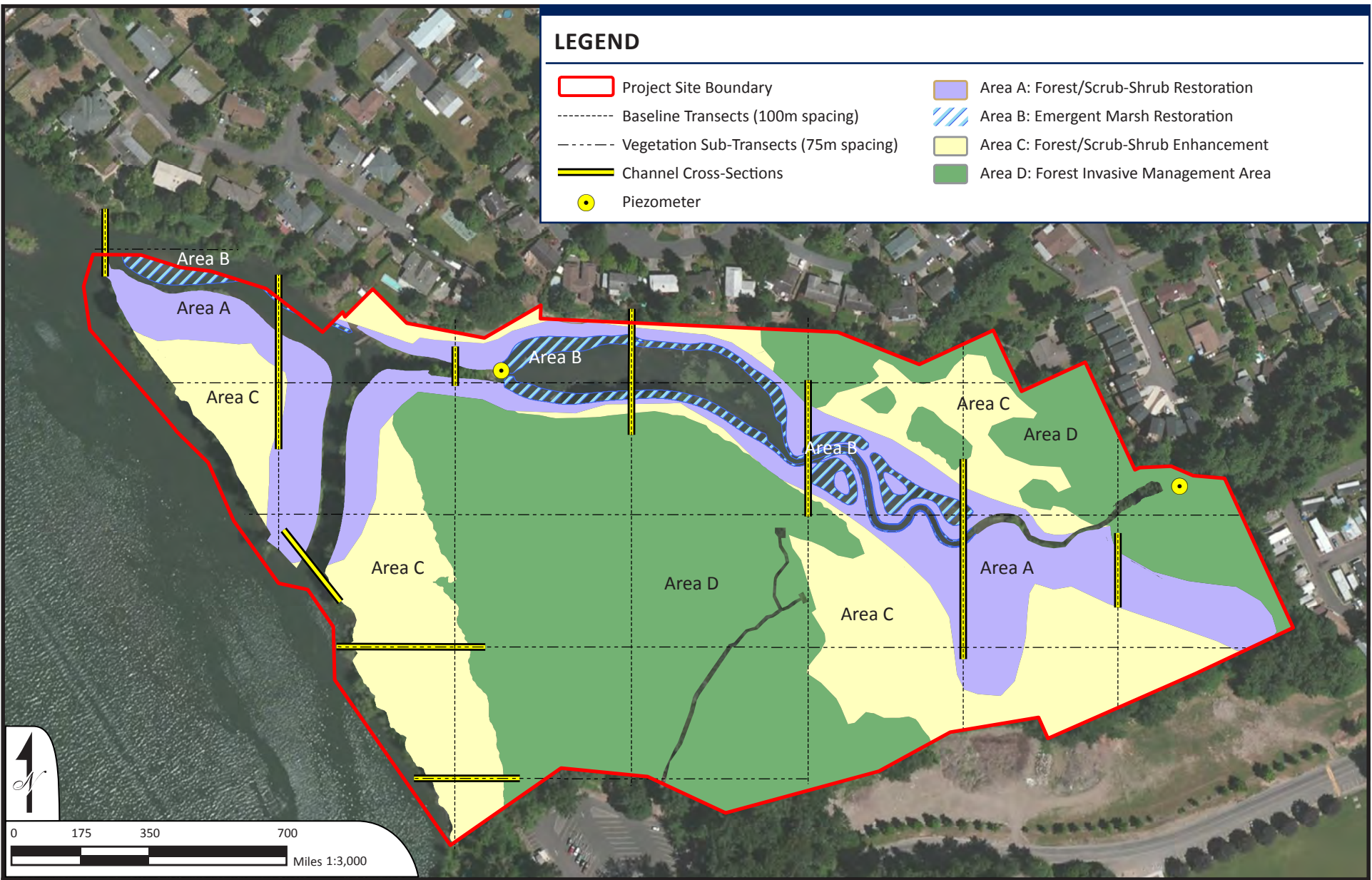
RINEARSON NATURAL AREA
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LEGEND

- Project Site Boundary
- Baseline Transects (100m spacing)
- Vegetation Sub-Transects (75m spacing)
- Channel Cross-Sections
- Piezometer
- Area A: Forest/Scrub-Shrub Restoration
- Area B: Emergent Marsh Restoration
- Area C: Forest/Scrub-Shrub Enhancement
- Area D: Forest Invasive Management Area



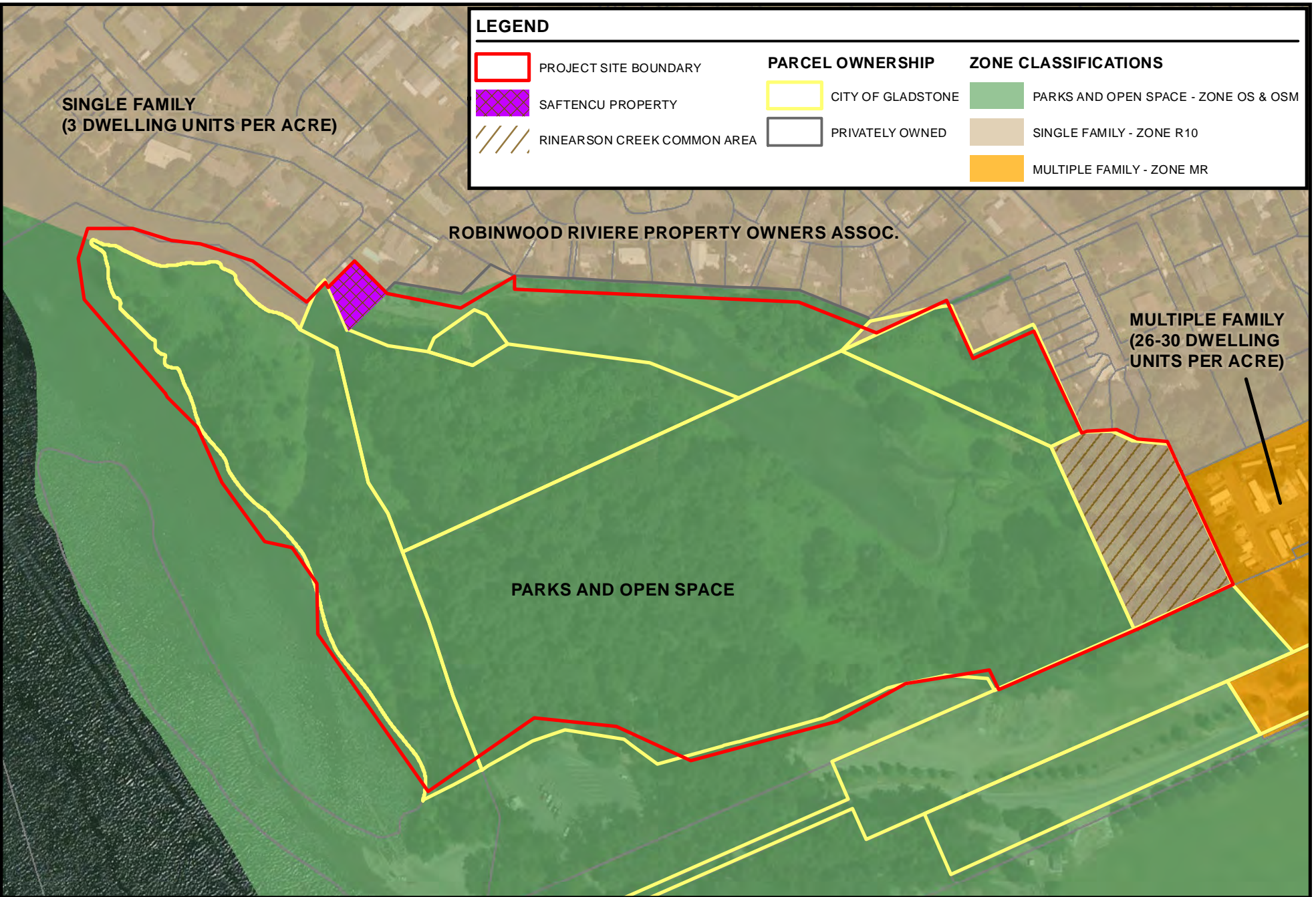
8

FIGURE

Performance Monitoring and Vegetation Management Areas

RINEARSON NATURAL AREA
 HABITAT DEVELOPMENT PLAN
 DECEMBER 2018





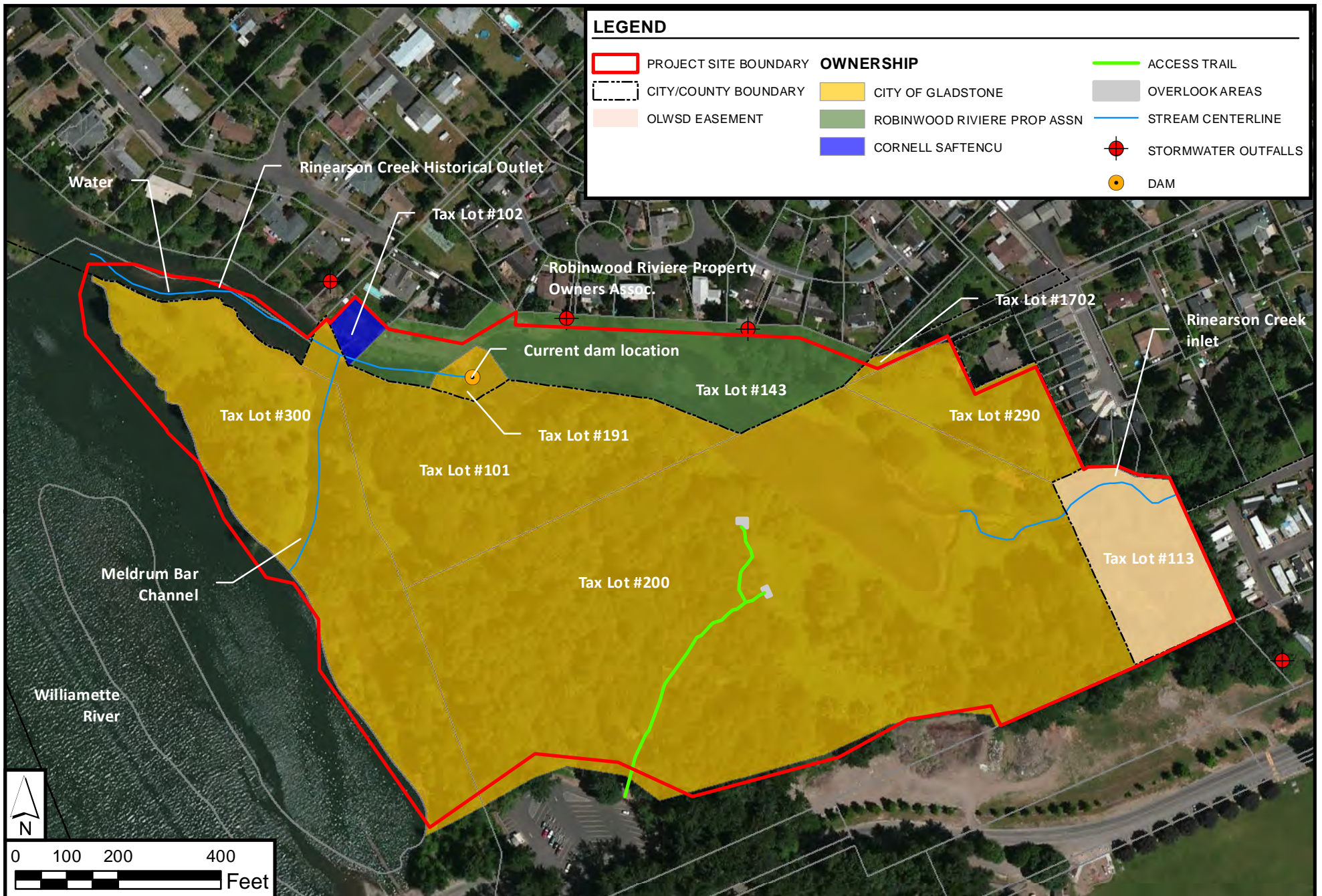
9

FIGURE

ZONING OVERLAYS FOR PROJECT SITE

RINEARSON NATURAL AREA
 HABITAT DEVELOPMENT PLAN
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10

FIGURE

ADMINISTRATIVE BOUNDARIES

RINEARSON NATURAL AREA

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STAR, IDAHO 83669
208 375-5373

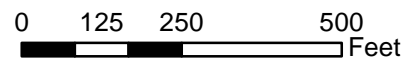
Appendix A: Historical Imagery and Aerials

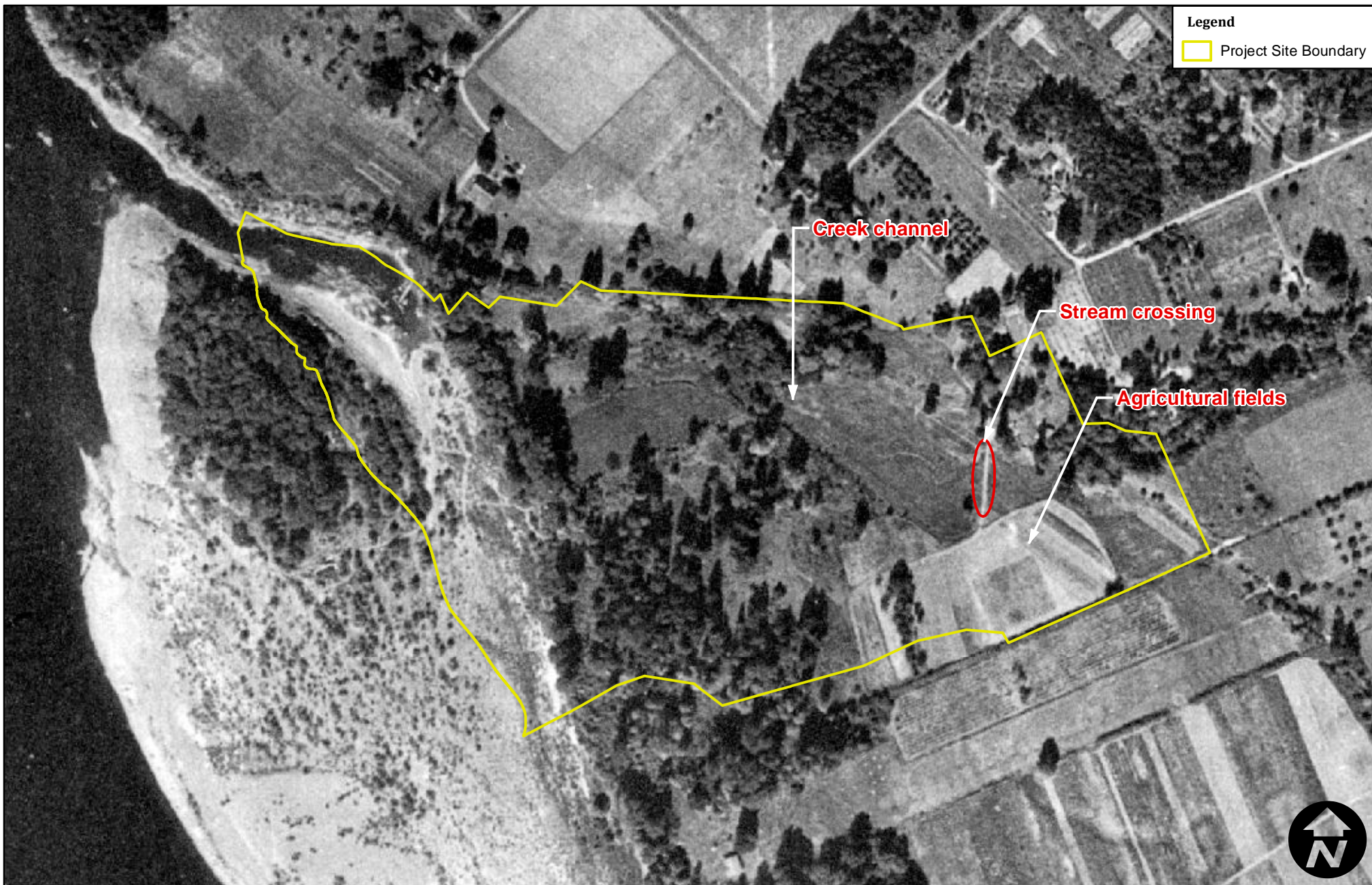


Date: 2/27/2015
 Scale: 1 inch = 300 feet
 Data Source: ESRI, 2015; Tobalske, 2002.

Appendix A. Historical Imagery - Presettlement Vegetation

Rinearson Natural Area Restoration Plan





Legend
 [Yellow line symbol] Project Site Boundary

Creek channel

Stream crossing

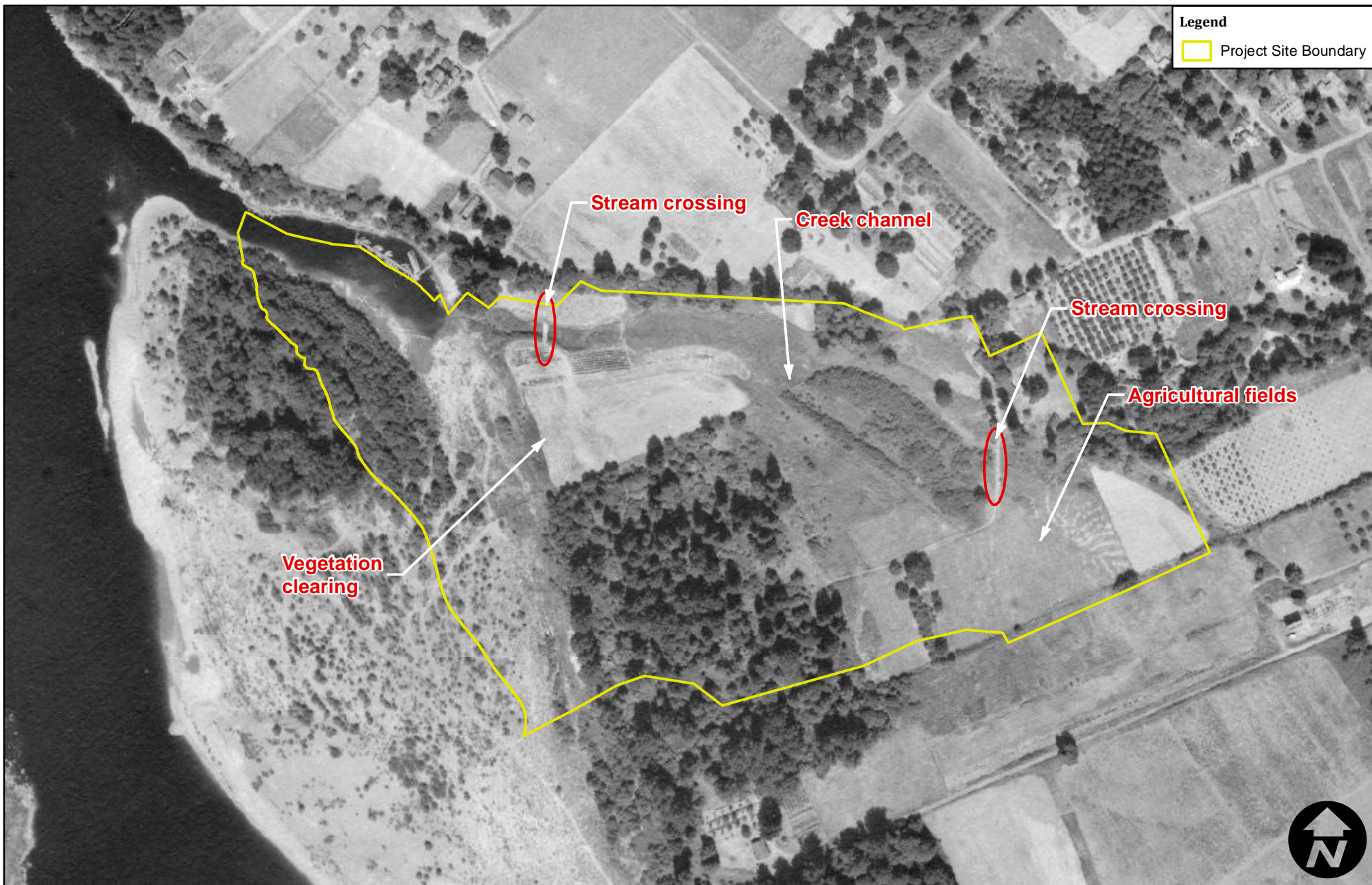
Agricultural fields

Date: 2/27/2015
 Scale: 1 inch = 300 feet
 Data Source: Map and Aerial Photography Library,
 University of Oregon, July 2013

Appendix A. Historical Aerial Photograph - 1936

Rinearson Natural Area Restoration Plan

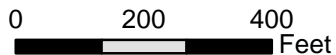


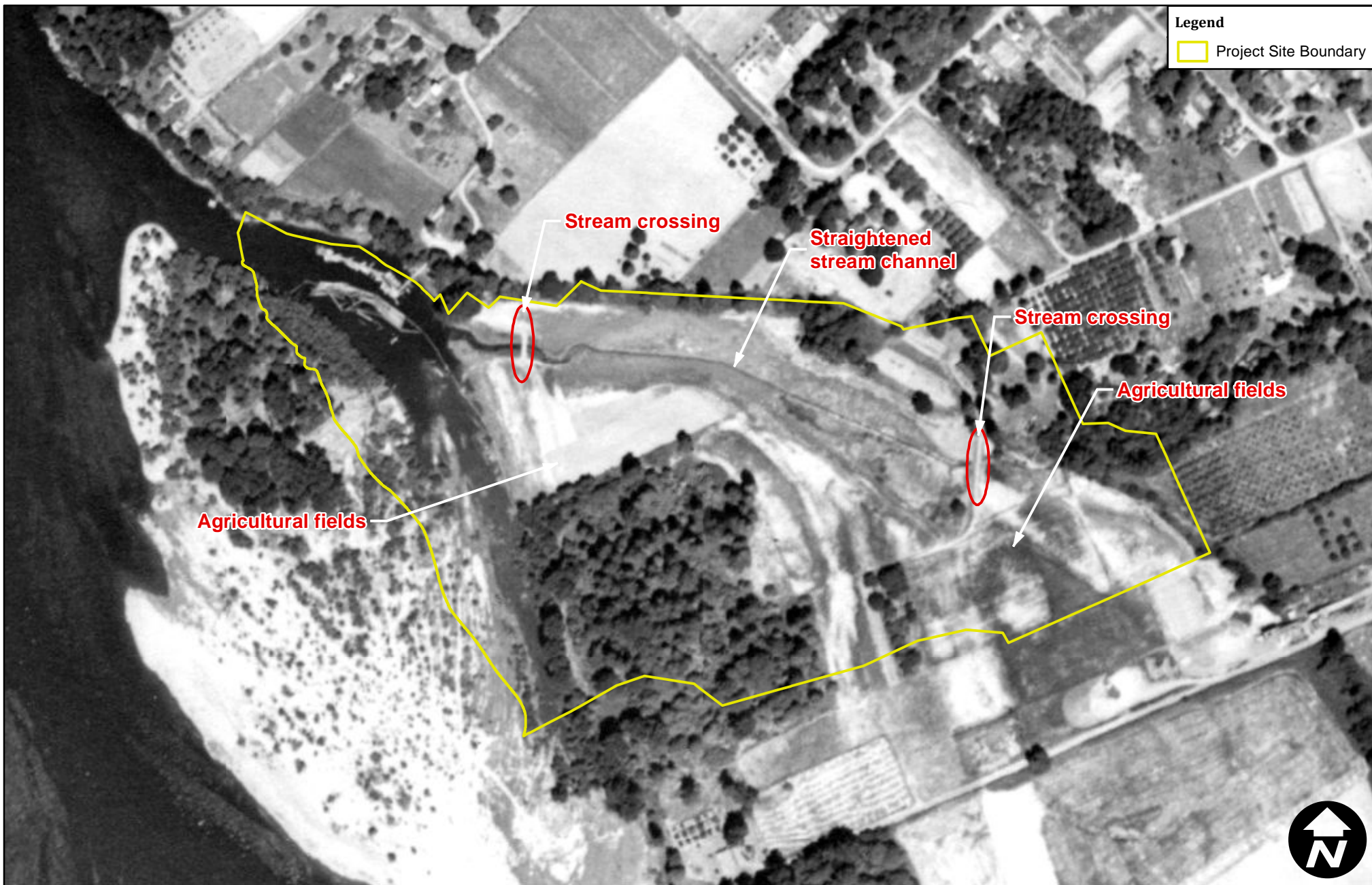


Date: 2/27/2015
 Scale: 1 inch = 300 feet
 Data Source: Map and Aerial Photography Library,
 University of Oregon, July 2013

Appendix A. Historical Aerial Photograph - 1944

Rinearson Natural Area Restoration Plan

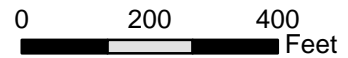


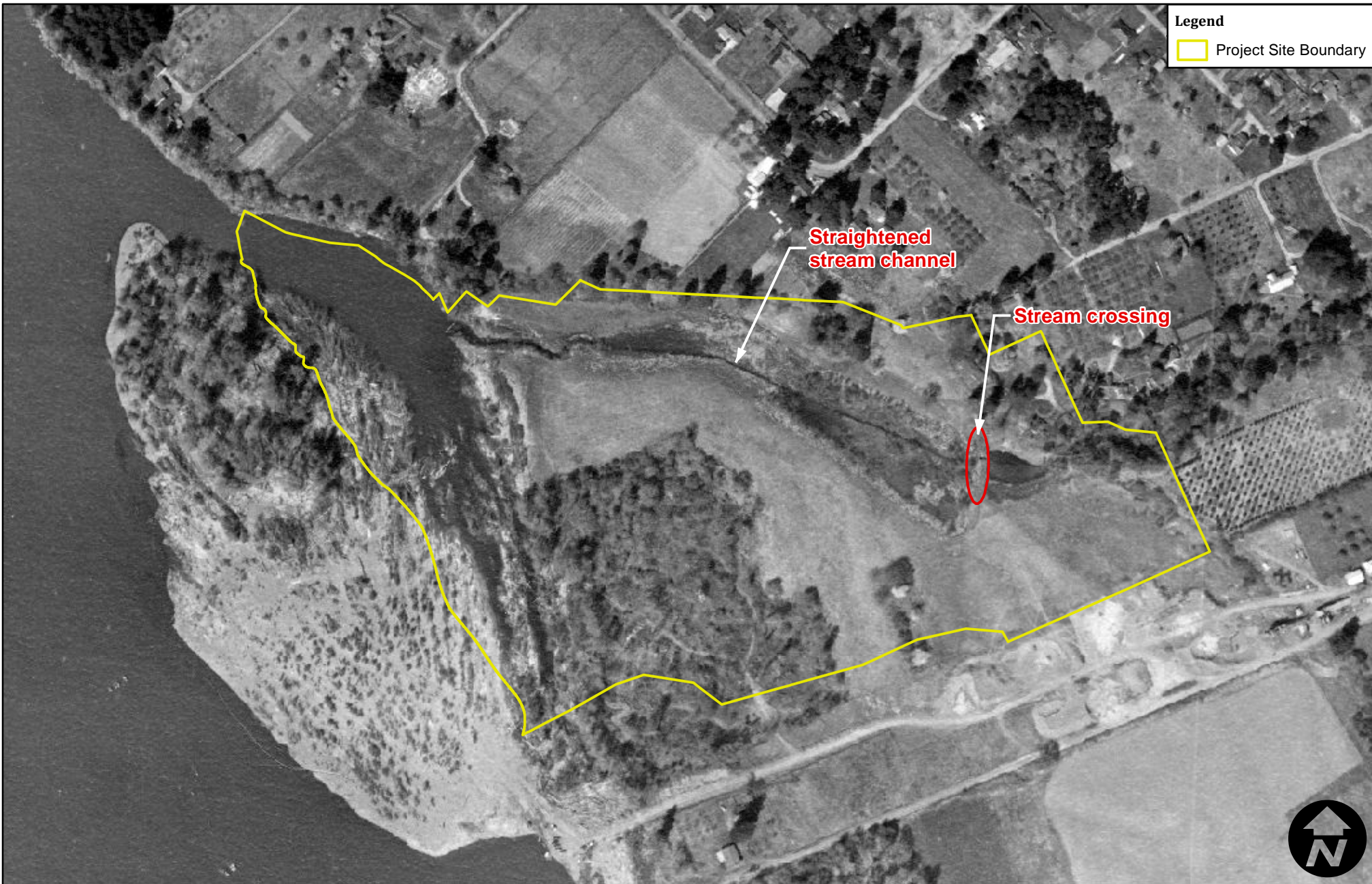


Date: 3/6/2015
Scale: 1 inch = 300 feet
Data Source: University of Oregon Map and Imagery Library, 2013.

Appendix A. Historical Aerial Photograph - 1948

Rinearson Natural Area Restoration Plan





Legend
Project Site Boundary

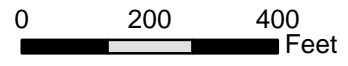
**Straightened
stream channel**

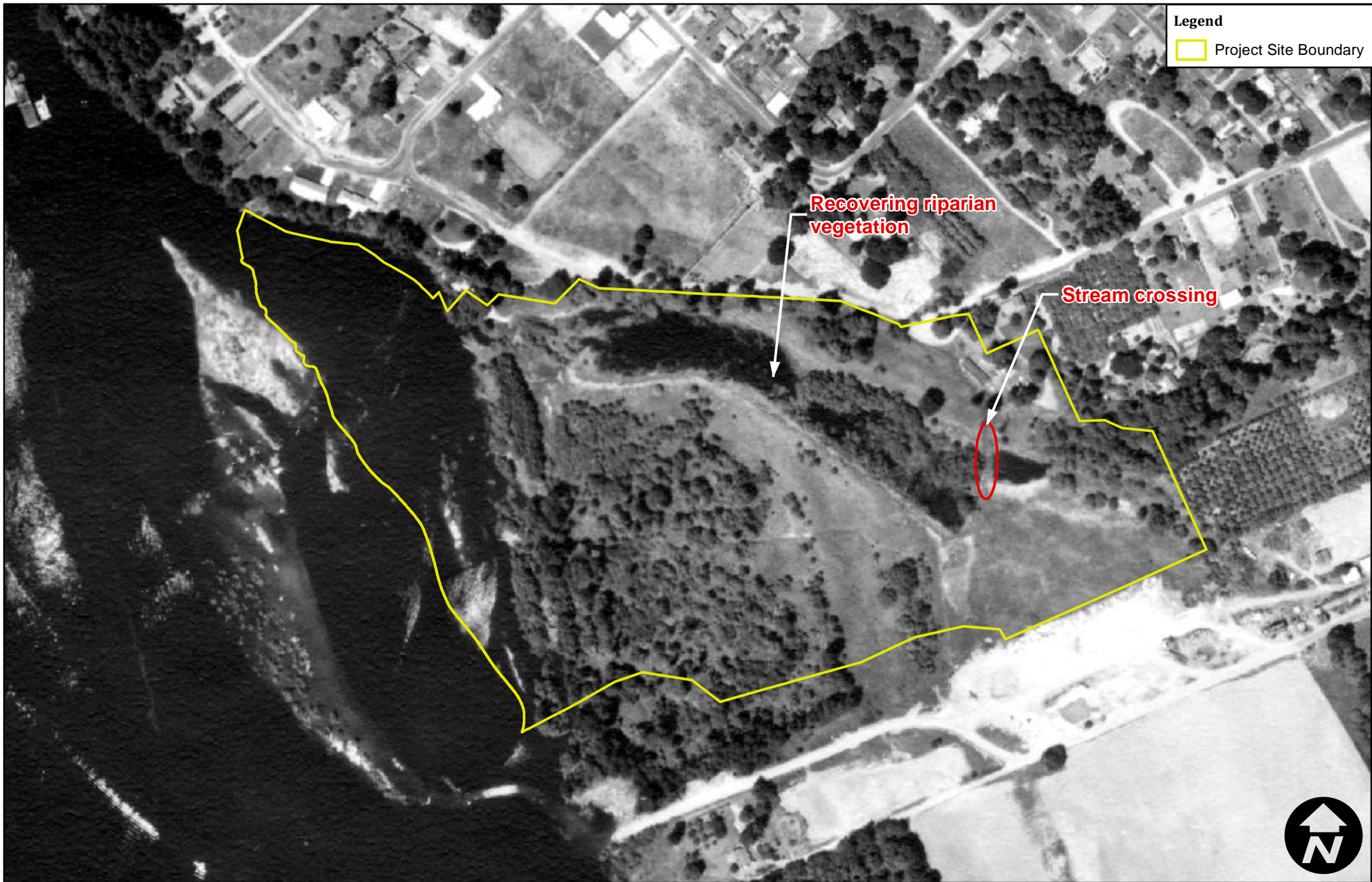
Stream crossing

Date: 3/6/2015
Scale: 1 inch = 300 feet
Data Source: University of Oregon Map
and Imagery Library, 2013.

Appendix A. Historical Aerial Photograph - 1956

Rinearson Natural Area Restoration Plan

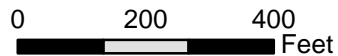




Date: 2/27/2015
Scale: 1 inch = 300 feet
Data Source: Map and Aerial Photography Library,
University of Oregon, July 2013

Appendix A. Historical Aerial Photograph - 1961

Rinearson Natural Area Restoration Plan



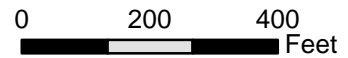


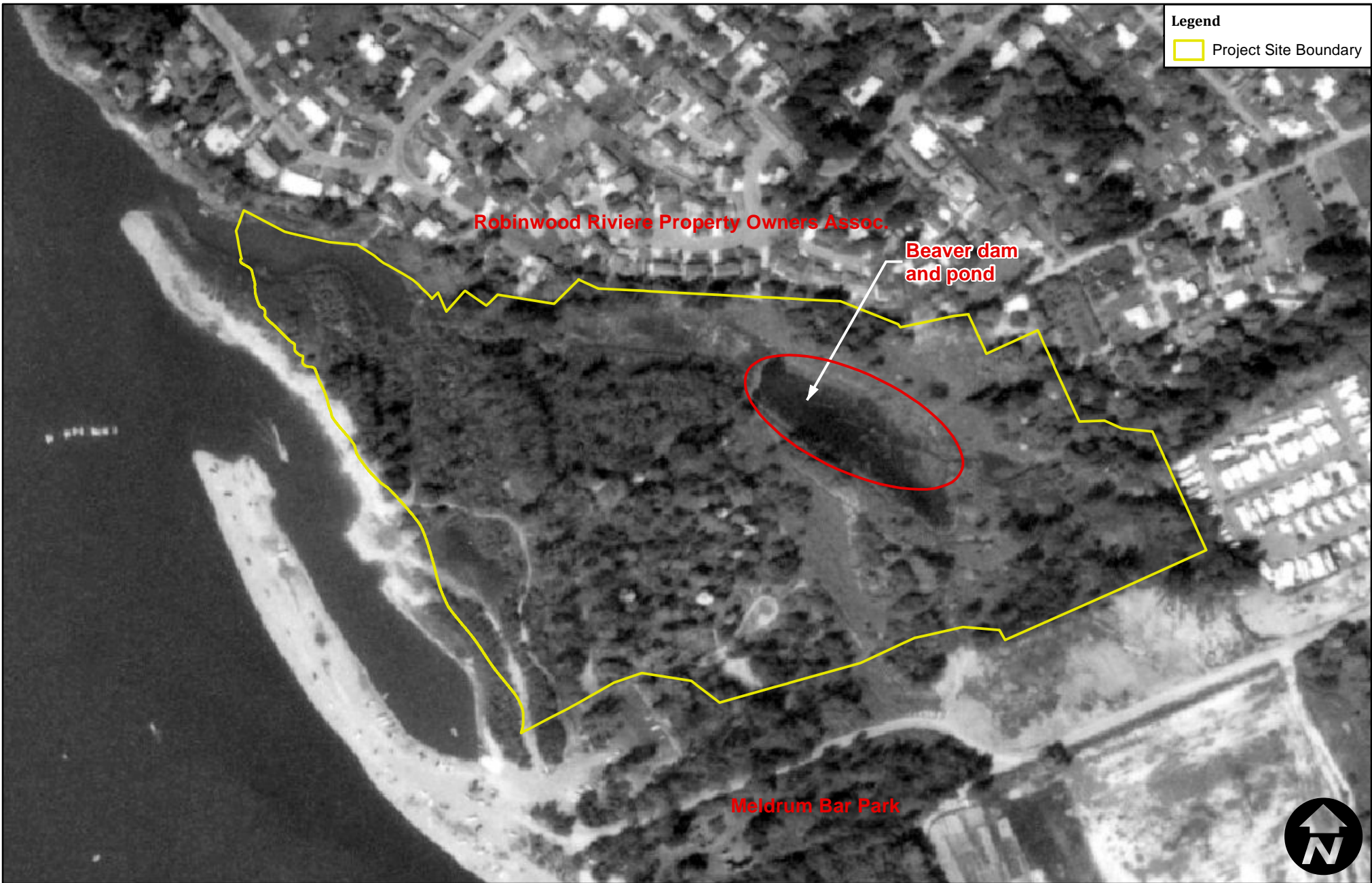
Legend
Project Site Boundary

Date: 2/27/2015
Scale: 1 inch = 300 feet
Data Source: Map and Aerial Photography Library,
University of Oregon, July 2013

Appendix A. Historical Aerial Photograph - 1970

Rinearson Natural Area Restoration Plan



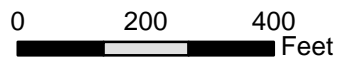


Legend
 Project Site Boundary

Date: 3/6/2015
 Scale: 1 inch = 300 feet
 Data Source: University of Oregon Map and Imagery Library, 2013.

Appendix A. Historical Aerial Photograph - 1980

Rinearson Natural Area Restoration Plan

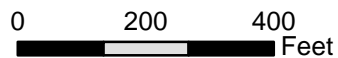




Date: 3/6/2015
 Scale: 1 inch = 300 feet
 Data Source: University of Oregon Map
 and Imagery Library, 2013.

Appendix A. Historical Aerial Photograph - 1990

Rinearson Natural Area Restoration Plan



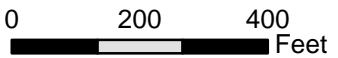


Legend
 Project Site Boundary

Date: 3/6/2015
 Scale: 1 inch = 300 feet
 Data Source: USGS digital orthoquad photo for
 Gladstone ID D100000000969533, 06/20/1994

Appendix A. Historical Aerial Photograph - 1994

Rinearson Natural Area Restoration Plan





Legend
 Project Site Boundary

Current dam location

Robinwood Riviere Property Owners Assoc.

Ponded area

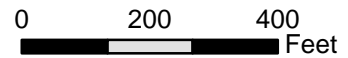
Meldrum Bar Park

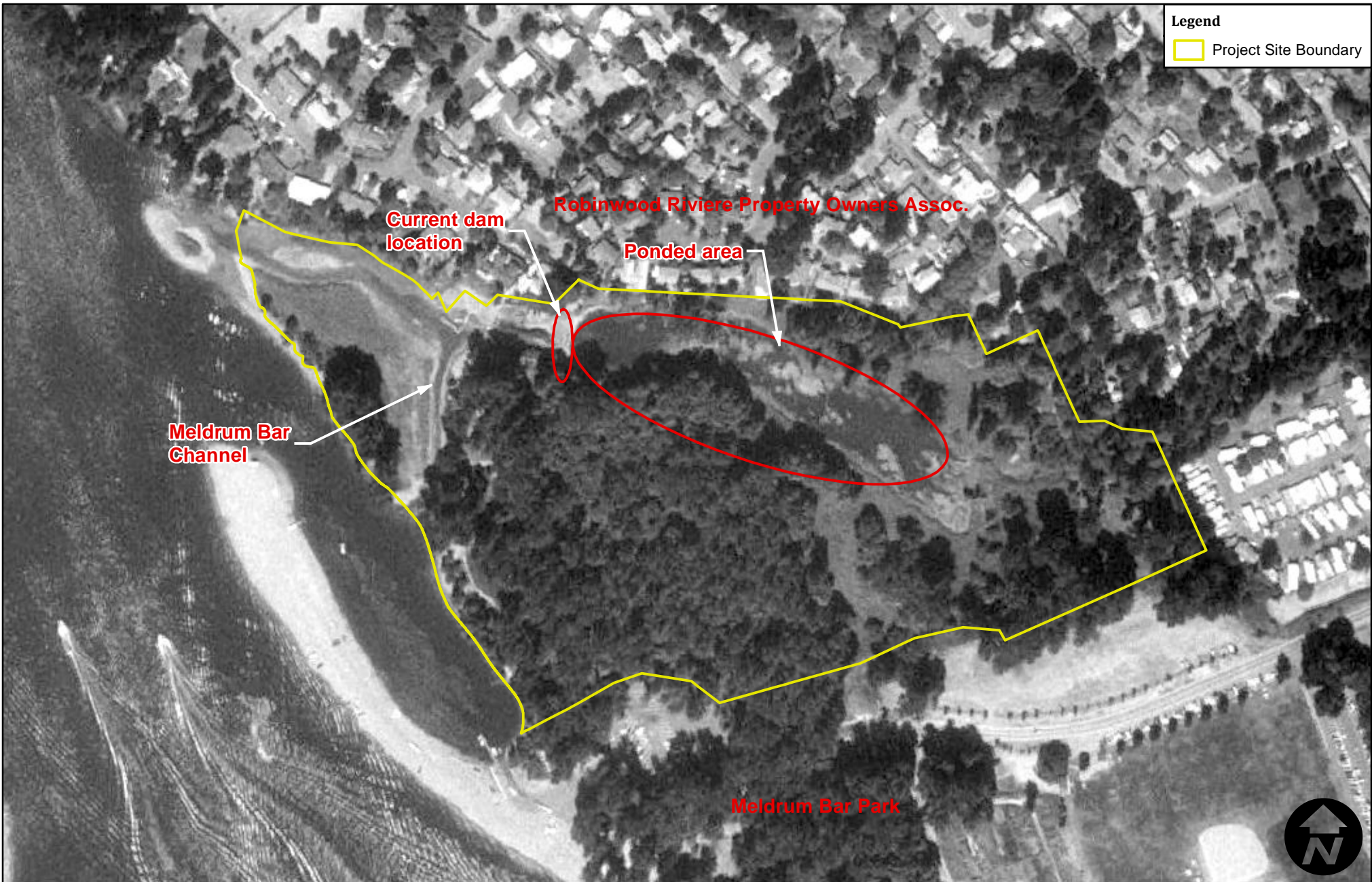


Date: 3/6/2015
 Scale: 1 inch = 300 feet
 Data Source: University of Oregon Map and Imagery Library, 2013.

Appendix A. Historical Aerial Photograph - 1998

Rinearson Natural Area Restoration Plan



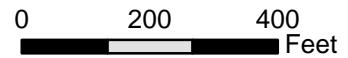


Legend
 [Yellow outline] Project Site Boundary

Date: 3/6/2015
 Scale: 1 inch = 300 feet
 Data Source: USGS digital orthoquad photo for Gladstone ID D100000001172358, 07/13/2001

Appendix A. Historical Aerial Photograph - 2001

Rinearson Natural Area Restoration Plan

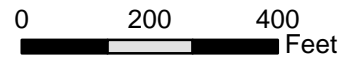




Date: 3/6/2015
 Scale: 1 inch = 300 feet
 Data Source: University of Oregon Map and Imagery Library, 2013.

Appendix A. Historical Aerial Photograph - 2009

Rinearson Natural Area Restoration Plan



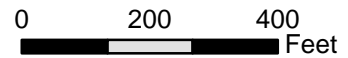


Legend
 [Yellow outline] Project Site Boundary

Date: 3/6/2015
 Scale: 1 inch = 300 feet
 Data Source: USDA, National Agricultural Imagery Program, July 2014.

Appendix A. Historical Aerial Photograph - 2014

Rinearson Natural Area Restoration Plan



Appendix B: Wildlife Observed Onsite

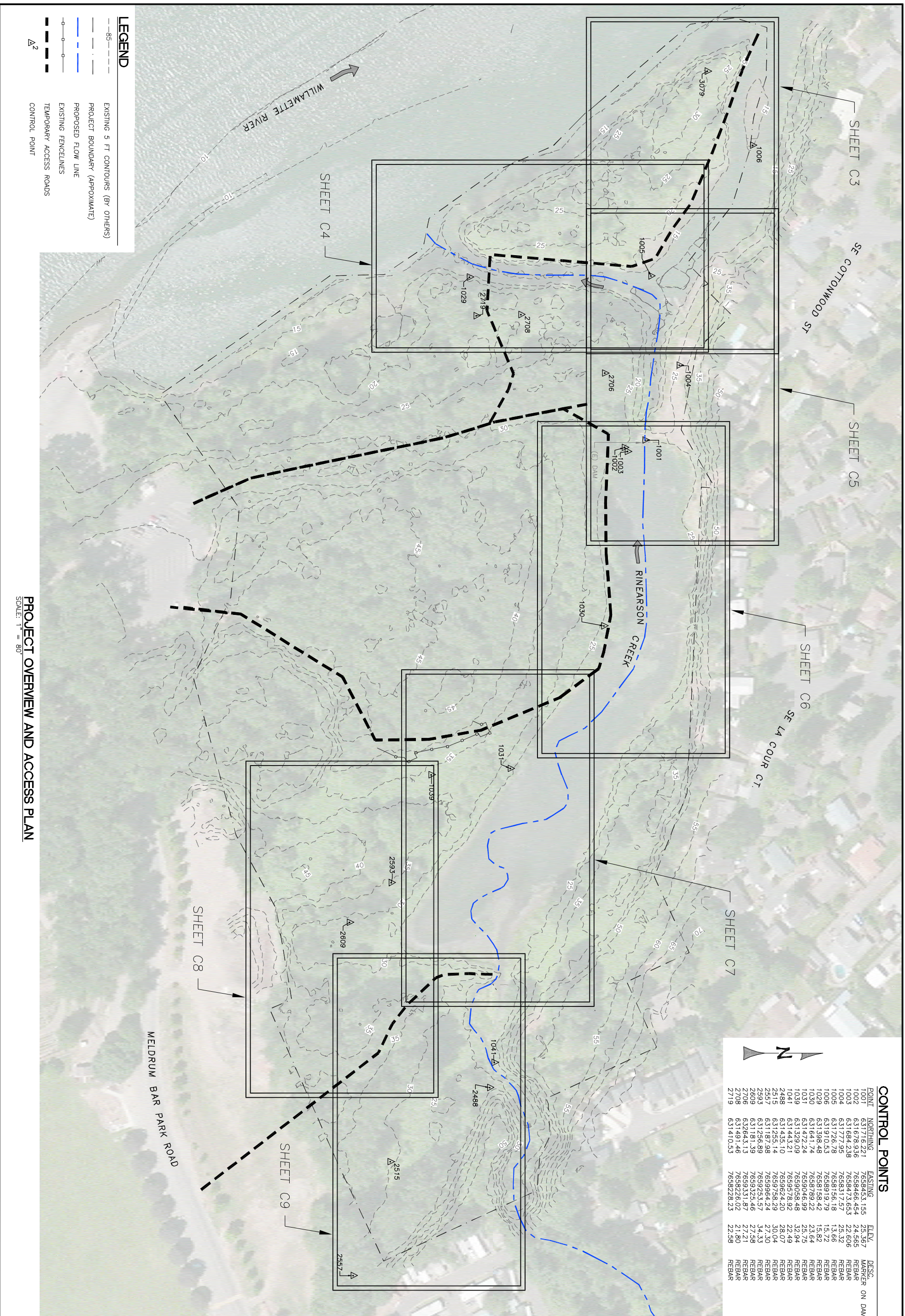
Appendix B. Wildlife observed onsite

Scientific Name	Common Name
Birds	
<i>Accipiter cooperii</i>	Cooper's hawk
<i>Actitis macularius</i>	spotted sandpiper
<i>Agelaius phoeniceus</i>	red-winged blackbird
<i>Aix sponsa</i>	wood duck
<i>Anas Americana</i>	American wigeon
<i>Anas crecca</i>	green-winged teal
<i>Anas platyrhynchos</i>	mallard
<i>Anas strepera</i>	gadwall
<i>Aphelocoma californica</i>	western scrub-jay
<i>Ardea herodias</i>	great blue heron
<i>Bombycilla cedrorum</i>	cedar waxwing
<i>Branta Canadensis</i>	Canada goose
<i>Branta hutchinsii</i>	cackling goose
<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Butorides virescens</i>	green heron
<i>Calypte anna</i>	Anna's hummingbird
<i>Cardellina pusilla</i>	Wilson's warbler
<i>Cathartes aura</i>	turkey vulture
<i>Catharus ustulatus</i>	Swainson's thrush
<i>Certhia americana</i>	brown creeper
<i>Chaetura vauxi</i>	Vaux's swift
<i>Colaptes auratus</i>	northern flicker
<i>Contopus sordidulus</i>	western wood-pewee
<i>Corvus brachyrhynchos</i>	American crow
<i>Cyanocitta stelleri</i>	Steller's jay
<i>Dryocopus pileatus</i>	pileated woodpecker
<i>Empidonax traillii</i>	willow flycatcher
<i>Falco peregrinus</i>	peregrine falcon
<i>Haemorhous mexicanus</i>	house finch
<i>Haemorhous purpureus</i>	purple finch
<i>Haliaeetus leucocephalus</i>	bald eagle
<i>Ixoreus naevius</i>	varied thrush
<i>Lophodytes cucullatus</i>	hooded merganser
<i>Megaceryle alcyon</i>	belted kingfisher
<i>Megascops kennicottii</i>	western screech owl
<i>Melospiza lincolnii</i>	Lincoln's sparrow
<i>Melospiza melodia</i>	song sparrow

Scientific Name	Common Name
<i>Mergus merganser</i>	common merganser
<i>Molothrus ater</i>	brown-headed cowbird
<i>Pandion haliaetus</i>	osprey
<i>Passerella iliaca</i>	fox sparrow
<i>Patagioenas fasciata</i>	band-tailed pigeon
<i>Phalacrocorax auritus</i>	double-crested cormorant
<i>Phasianus colchicus</i>	ring-necked pheasant
<i>Pheucticus melanocephalus</i>	black-headed grosbeak
<i>Picoides pubescens</i>	downy woodpecker
<i>Picoides villosus</i>	hairy woodpecker
<i>Pipilo maculatus</i>	spotted towhee
<i>Piranga ludoviciana</i>	western tanager
<i>Podilymbus podiceps</i>	pied-billed grebe
<i>Poecile atricapillus</i>	black-capped chickadee
<i>Poecile rufescens</i>	chestnut-backed chickadee
<i>Psaltriparus minimus</i>	bushtit
<i>Regulus calendula</i>	ruby-crowned kinglet
<i>Regulus satrapa</i>	golden-crowned kinglet
<i>Selasphorus rufus</i>	rufous hummingbird
<i>Setophaga nigrescens</i>	black-throated gray warbler
<i>Sitta canadensis</i>	red-breasted nuthatch
<i>Sitta carolinensis</i>	white-breasted nuthatch
<i>Sphyrapicus ruber</i>	redbreasted sapsucker
<i>Spinus pinus</i>	pine siskin
<i>Spinus psaltria</i>	lesser goldfinch
<i>Spinus tristis</i>	American goldfinch
<i>Sturnus vulgaris</i>	European starling
<i>Tachycineta thalassina</i>	violet-green swallow
<i>Thryomanes bewickii</i>	Bewick's wren
<i>Troglodytes pacificus</i>	Pacific wren
<i>Turdus migratorius</i>	American robin
<i>Zonotrichia atricapilla</i>	golden-crowned sparrow
<i>Zonotrichia leucophrys</i>	white-crowned sparrow
Mammals	
<i>Canis latrans</i>	coyote
<i>Castor canadensis</i>	beaver
<i>Didelphis virginiana</i>	Opossum

Scientific Name	Common Name
<i>Lutra canadensis</i>	river otter
<i>Mephitis mephitis</i>	stripped skunk
<i>Mustela vison</i>	mink
<i>Myocastor coypus</i>	nutria
<i>Pocyon lotor</i>	raccoon
Reptiles	
<i>Actinemys marmorata</i>	western pond turtle
<i>Chrysemys picta</i>	western painted turtle

Appendix C1: Project Design (Construction Documents)

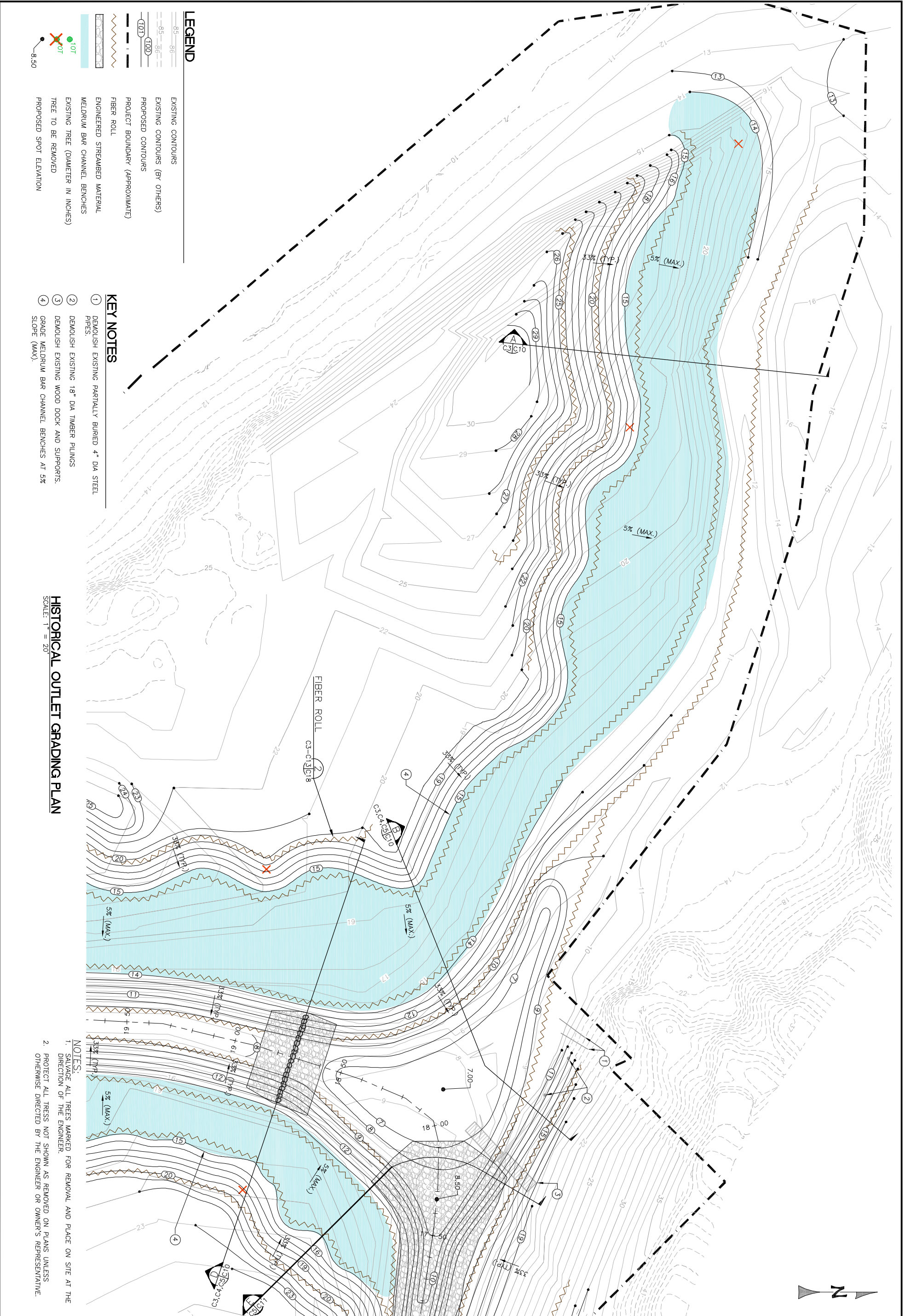


CONTROL POINTS

POINT	NORTHING	EASTING	ELEV.	DESC.
1001	631716.221	765645.155	25.367	REBAR ON DAM
1002	631678.936	765646.454	24.565	REBAR
1003	631684.238	765647.365	22.606	REBAR
1004	631777.95	7658317.57	25.32	REBAR
1005	631726.78	7658156.18	13.66	REBAR
1006	631910.53	7658919.79	15.72	REBAR
1009	631398.48	7658158.42	15.82	REBAR
1030	631641.74	7658789.22	23.64	REBAR
1031	631472.24	7659046.99	25.75	REBAR
1039	631329.09	7659058.48	32.94	REBAR
1041	631443.21	7659578.92	22.49	REBAR
1044	631435.10	7659624.20	28.07	REBAR
2515	631255.14	7659758.29	30.04	REBAR
2557	631187.98	7659664.24	27.30	REBAR
2593	631256.89	7659253.57	34.33	REBAR
2609	631181.39	7659335.46	27.58	REBAR
2706	632643.13	7659331.87	27.21	REBAR
2708	631491.46	7659226.02	21.80	REBAR
2719	631410.33	7658228.23	22.58	REBAR

PROJECT OVERVIEW AND ACCESS PLAN
SCALE: 1" = 80'

<p>C2 OF 18</p>	<p>DESIGNED BY: J.H. DRAWN BY: A.L./J.H. CHECKED BY: M.M. DATE: 08/08/17 JOB NO.: 11-042</p> <p>BAR IS ONE INCH ON ORIGINAL DRAWING ADJUST SCALES FOR REDUCED PLOTS.</p>	<p>RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL</p>	<p>PROJECT OVERVIEW AND ACCESS PLAN</p>	<p>PREPARED AT THE REQUEST OF: RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC</p> <p>REGISTERED PROFESSIONAL ENGINEER 77870PE JAKE D. HOFELD OREGON JANUARY 3, 2011 JAKE DYLAN HOFELD EXPIRES: 6/30/2019</p> <p>8/8/17 DATE</p>	<p>WATERWAYS CONSULTING INC.</p> <p>1020 SW TAYLOR STREET, STE. 380 PORTLAND, OR 97205 PH: (503)227-5979 // FAX: (888)819-6847 WWW.WATWAYS.COM</p>
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LEGEND

- 85 ——— EXISTING CONTOURS
- 86 ——— EXISTING CONTOURS (BY OTHERS)
- 85-86 ——— PROPOSED CONTOURS
- (100) ——— PROPOSED CONTOURS
- · — · — PROJECT BOUNDARY (APPROXIMATE)
- · — · — FIBER ROLL
- · — · — ENGINEERED STREAMBED MATERIAL
- · — · — MELDRUM BAR CHANNEL BENCHES
- · — · — EXISTING TREE (DIAMETER IN INCHES)
- · — · — TREE TO BE REMOVED
- · — · — PROPOSED SPOT ELEVATION

KEY NOTES

- 1 DEMOLISH EXISTING PARTIALLY BURIED 4" DIA STEEL PIPES.
- 2 DEMOLISH EXISTING 18" DIA TIMBER PILING.
- 3 DEMOLISH EXISTING WOOD DOCK AND SUPPORTS.
- 4 GRADE MELDRUM BAR CHANNEL BENCHES AT 5% SLOPE (MAX).

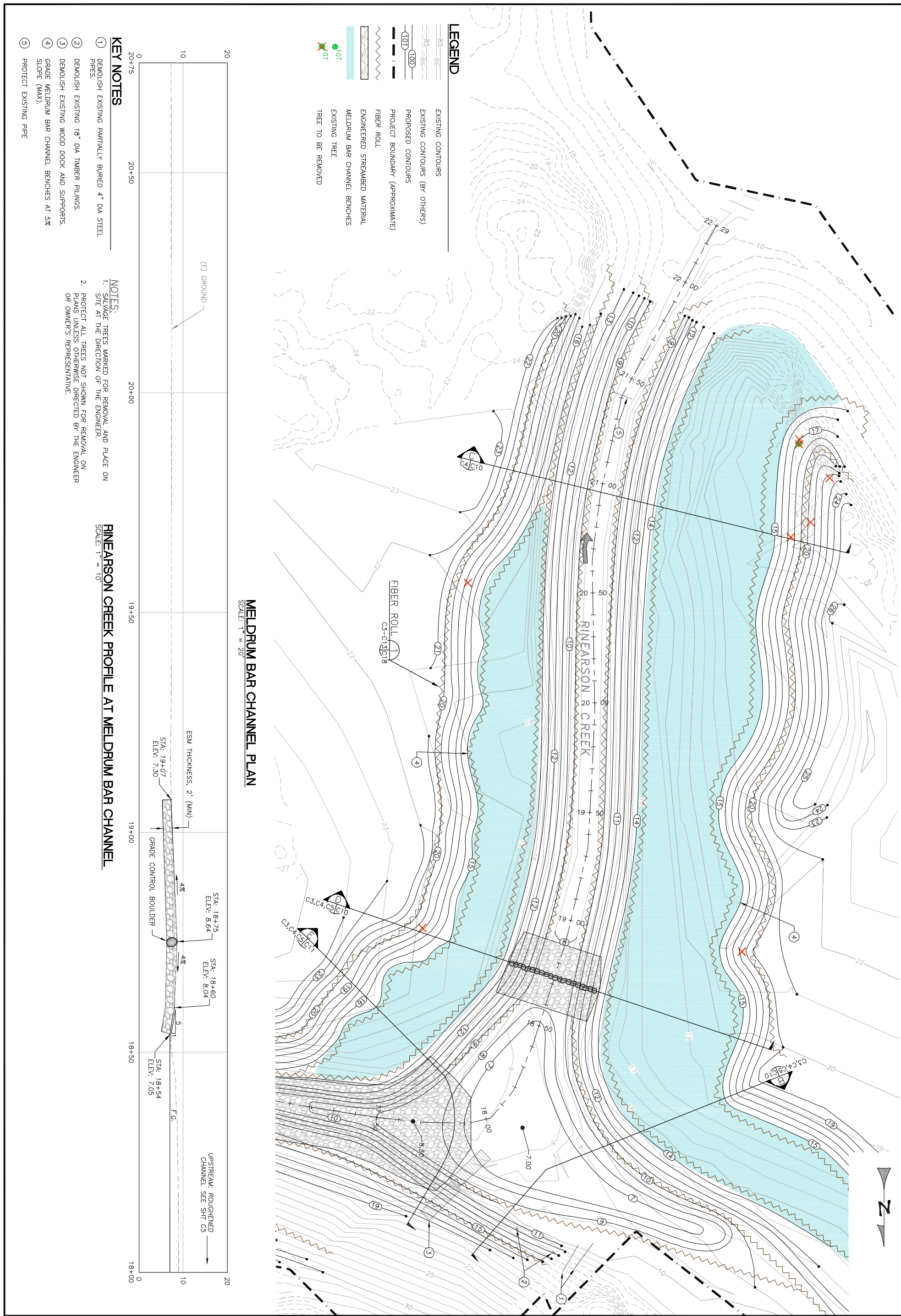
HISTORICAL OUTLET GRADING PLAN

SCALE: 1" = 20'

NOTES:

1. SALVAGE ALL TREES MARKED FOR REMOVAL AND PLACE ON SITE AT THE DIRECTION OF THE ENGINEER.
2. PROTECT ALL TREES NOT SHOWN AS REMOVED ON PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR OWNER'S REPRESENTATIVE.

<p>C3 OF 18</p>	<p>DESIGNED BY: J.H. DRAWN BY: A.L./J.H. CHECKED BY: M.W. DATE: 08/08/17 JOB NO.: 11-042</p>	<p>HISTORICAL OUTLET GRADING PLAN</p>	<p>PREPARED AT THE REQUEST OF: RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC</p>	<p>REGISTERED PROFESSIONAL ENGINEER 77870PE JAKE D. HOFELD OREGON JANUARY 3, 2011 JAKE DYLAN HOFELD EXPIRES: 6/30/2019</p>	<p>8/8/17 DATE</p>	<p>WATERWAYS CONSULTING INC.</p>	<p>1020 SW TAYLOR STREET, STE. 380 PORTLAND, OR 97205 PH:(503)227-5979 // FAX:(888)819-6847 WWW.WATWAYS.COM</p>
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DESIGNED BY: J.H.
DRAWN BY: A.L./J.H.
CHECKED BY: M.M.
DATE: 08/08/17
JOB NO.: 11-042

BAR IS ONE INCH ON ORIGINAL DRAWING ADJUST SCALES FOR REDUCED PLOTS.

0 1" = 18'

C4 OF 18

PINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL

MELDRUM BAR CHANNEL PLAN AND PROFILE

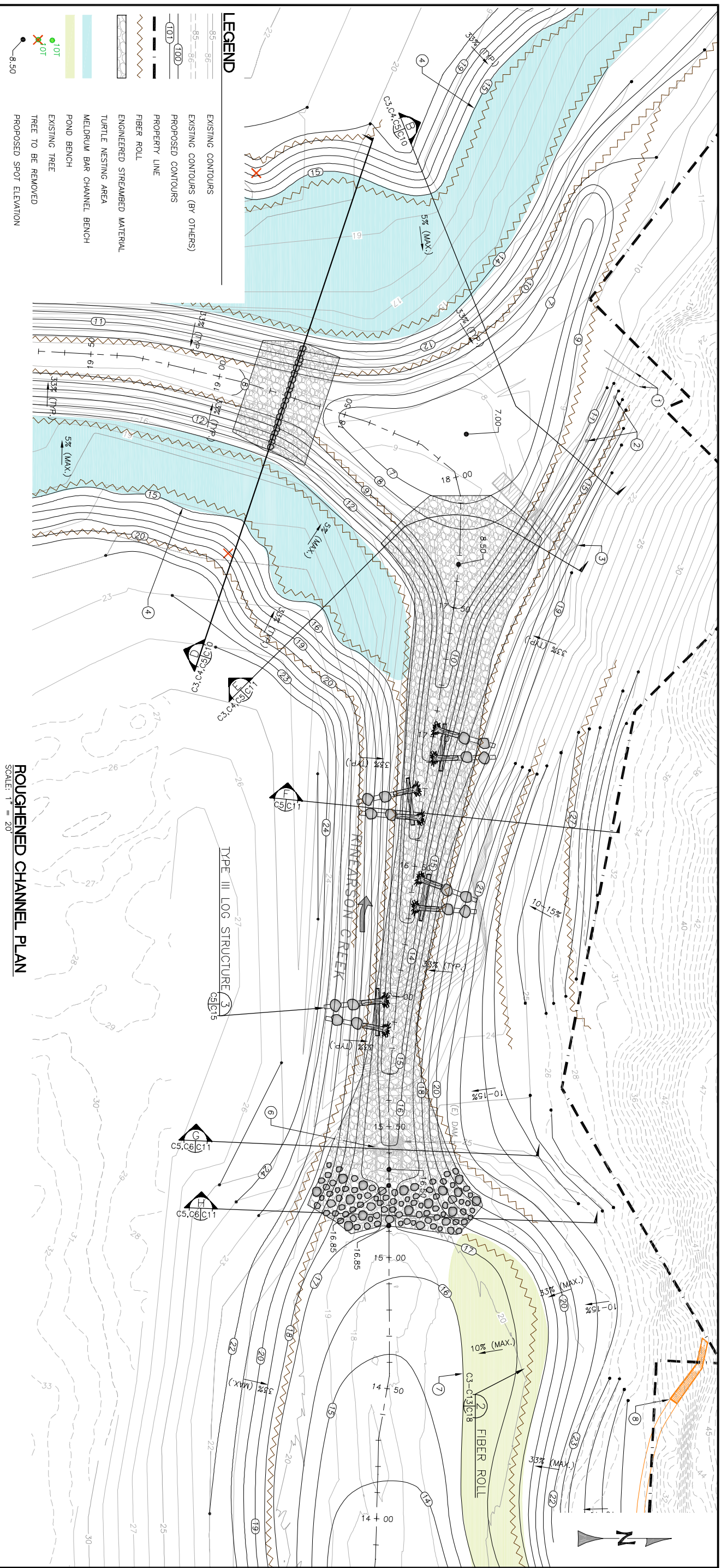
PREPARED AT THE REQUEST OF:
PINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC

REGISTERED PROFESSIONAL ENGINEER 77870PE
JAKE D. HOFELD
OREGON JANUARY 3, 2011
JAKE DYLAN HOFELD
EXPIRES: 6/30/2019

8/8/17 DATE

WATERWAYS CONSULTING INC.

1020 SW TAYLOR STREET, STE. 380
PORTLAND, OR 97205
PH:(503)227-5979 // FAX:(888)819-6847
WWW.WATWAYS.COM



KEY NOTES

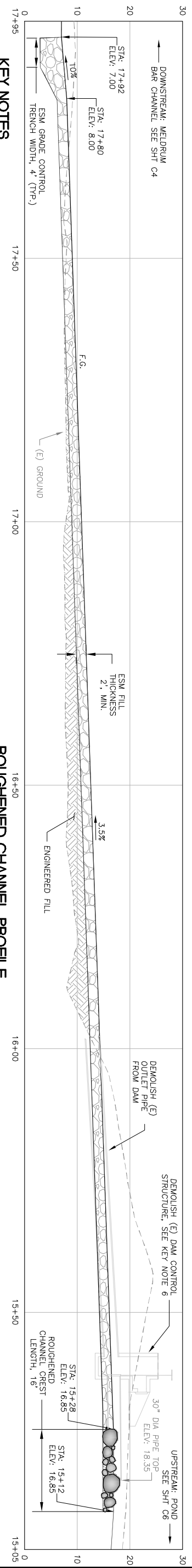
- 1 DEMOLISH EXISTING PARTIALLY BURIED 4" DIA STEEL PIPES.
- 2 DEMOLISH EXISTING 18" DIA TIMBER PILINGS.
- 3 DEMOLISH EXISTING WOOD DOCK AND SUPPORTS.
- 4 GRADE MELDRUM BAR CHANNEL BENCHES AT 5% SLOPE (MAX).
- 5 DEMOLISH EXISTING DAM CONTROL STRUCTURE INCLUDING ALL CONCRETE, METAL PIPES, GABION BASKETS, AND ANY OTHER MAN MADE MATERIALS AS DIRECTED BY THE ENGINEER.
- 6 GRADE POND BENCHES AT 10% SLOPE (MAX).
- 7 PROTECT EXISTING STAIRWAY

NOTES:

1. SALVAGE TREES MARKED FOR REMOVAL AND PLACE ON SITE AT THE DIRECTION OF THE ENGINEER.
2. PROTECT ALL TREES NOT SHOWN FOR REMOVAL ON PLANS UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR OWNER'S REPRESENTATIVE.

ROUGHENED CHANNEL PROFILE

SCALE: 1" = 10'



DESIGNED BY: J.H.
 DRAWN BY: A.L./J.H.
 CHECKED BY: M.M./M.M.
 DATE: 08/08/17
 JOB NO.: 11-042

BAR IS ONE INCH ON ORIGINAL DRAWING ADJUST SCALES FOR REDUCED PLOTS

0 1" = 1"

RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL

ROUGHENED CHANNEL PLAN AND PROFILE

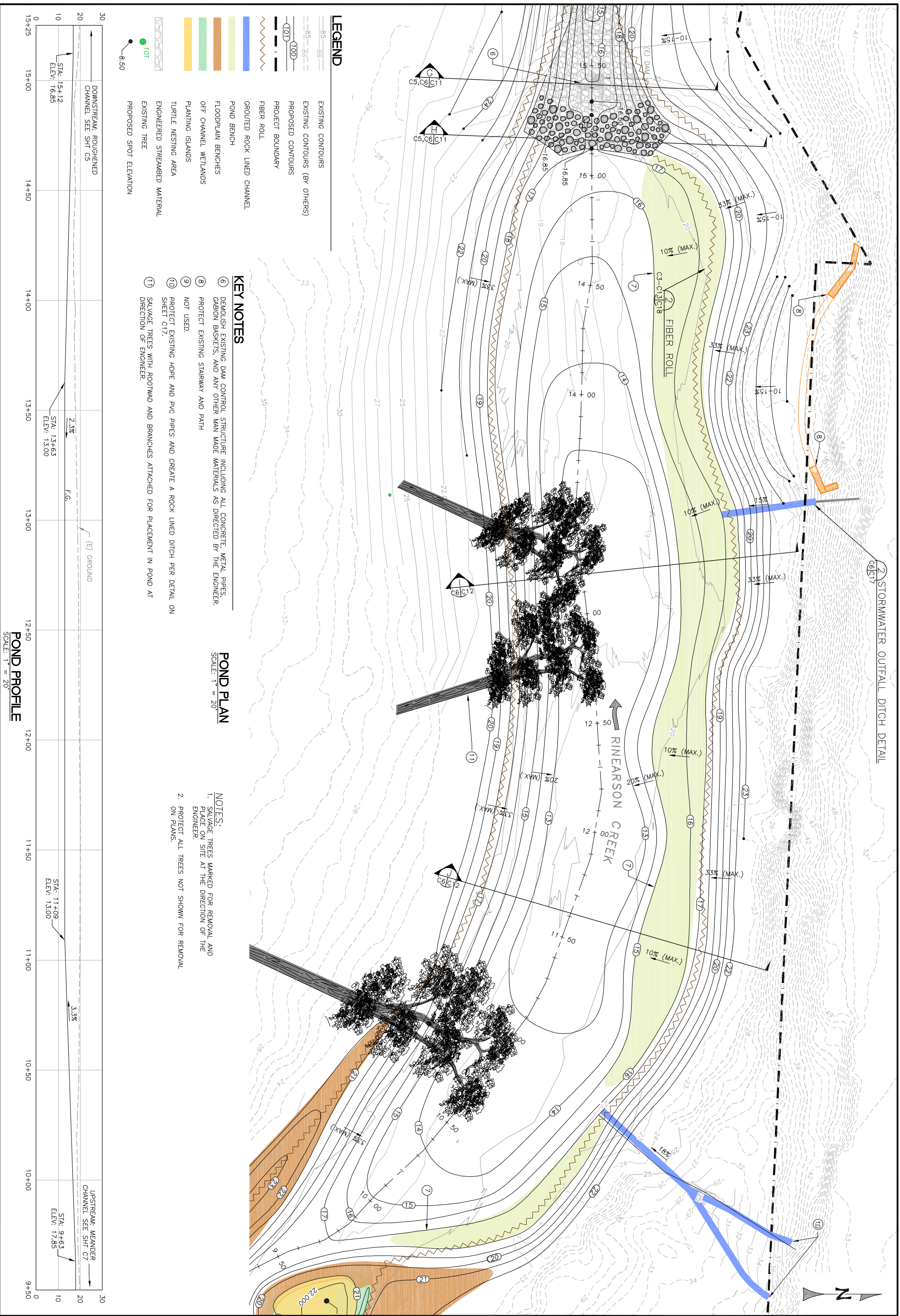
PREPARED AT THE REQUEST OF:
RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC

REGISTERED PROFESSIONAL ENGINEER 77870PE
 JAKE D. HOFELD
 OREGON JANUARY 3, 2011
 JAKE DYLAN HOFELD
 EXPIRES: 6/30/2019

8/8/17 DATE

WATERWAYS CONSULTING INC.

1020 SW TAYLOR STREET, STE. 380
 PORTLAND, OR 97205
 PH:(503)227-5979 // FAX:(888)819-6847
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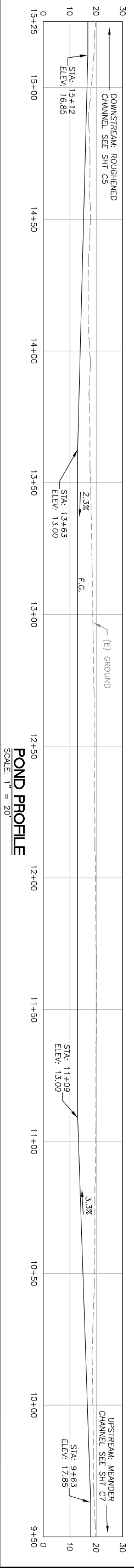
LEGEND

85-96	EXISTING CONTOURS
85-96	EXISTING CONTOURS (BY OTHERS)
100	PROPOSED CONTOURS
101	PROJECT BOUNDARY
---	FIBER ROLL
---	GROUTED ROCK LINED CHANNEL
---	POND BENCH
---	FLOODPLAIN BENCHES
---	OFF CHANNEL WETLANDS
---	PLANTING ISLANDS
---	TURTLE NESTING AREA
---	ENGINEERED STREAMBED MATERIAL
---	EXISTING TREE
---	PROPOSED SPOT ELEVATION

- KEY NOTES**
- 6 DEMOLISH EXISTING DAM CONTROL STRUCTURE INCLUDING ALL CONCRETE, METAL PIPES, GABION BASKETS, AND ANY OTHER MAN MADE MATERIALS AS DIRECTED BY THE ENGINEER.
 - 8 PROTECT EXISTING STAIRWAY AND PATH
 - 9 NOT USED.
 - 10 PROTECT EXISTING HOPE AND PVC PIPES AND CREATE A ROCK LINED DITCH PER DETAIL ON SHEET C17.
 - 11 SALVAGE TREES WITH ROOTWAD AND BRANCHES ATTACHED FOR PLACEMENT IN POND AT DIRECTION OF ENGINEER.

POND PLAN
SCALE: 1" = 20'

- NOTES:**
- 1. SALVAGE TREES MARKED FOR REMOVAL AND PLACE ON SITE AT THE DIRECTION OF THE ENGINEER.
 - 2. PROTECT ALL TREES NOT SHOWN FOR REMOVAL ON PLANS.



DESIGNED BY: J.H.
DRAWN BY: A.L./J.H.
CHECKED BY: M.M./M.W.
DATE: 08/08/17
JOB NO.: 11-042

BAR IS ONE INCH ON ORIGINAL DRAWING ADJUST SCALES FOR REDUCED PLOTS.

RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL

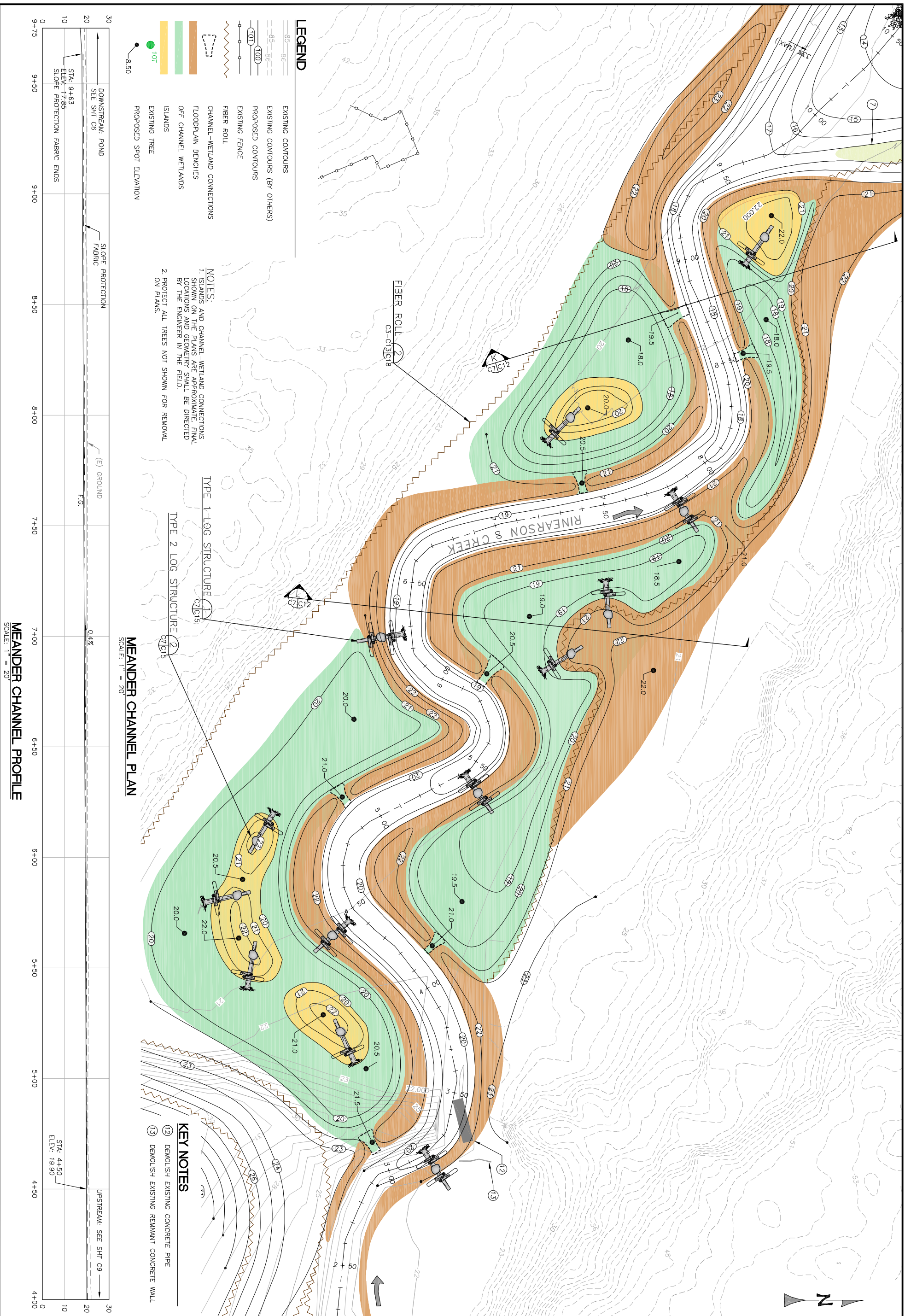
POND PLAN AND PROFILE

PREPARED AT THE REQUEST OF:
RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC

REGISTERED PROFESSIONAL ENGINEER 77870PE
JAKE D. HOFELD
OREGON JANUARY 3, 2011
JAKE DYLAN HOFELD
EXPIRES: 6/30/2019

8/8/17 DATE

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DESIGNED BY: J.H.
DRAWN BY: A.L./J.H.
CHECKED BY: M.M./M.W.
DATE: 08/08/17
JOB NO.: 11-042

BAR IS ONE INCH ON ORIGINAL DRAWING ADJUST SCALES FOR REDUCED PLOTS.

0 1" = 1'

RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL

MEANDER CHANNEL PLAN AND PROFILE

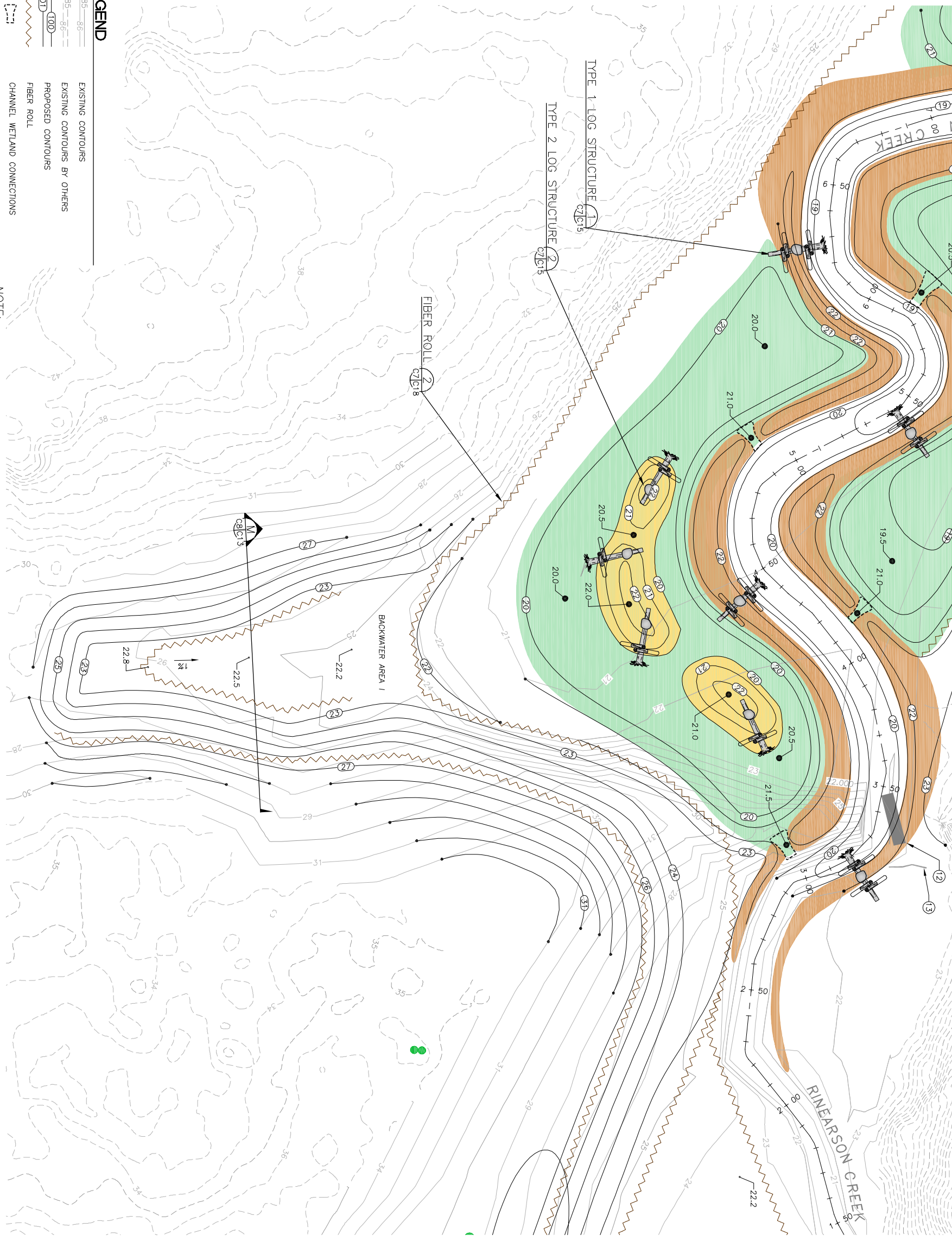
PREPARED AT THE REQUEST OF:
RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC

REGISTERED PROFESSIONAL ENGINEER 77870PE
JAKE D. HOFELD
OREGON JANUARY 3, 2011
JAKE DYLAN HOFELD
EXPIRES: 6/30/2019

8/8/17 DATE

WATERWAYS CONSULTING INC.

1020 SW TAYLOR STREET, STE. 380
PORTLAND, OR 97205
PH:(503)227-5979 // FAX:(888)819-6847
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LEGEND

- EXISTING CONTOURS
- EXISTING CONTOURS BY OTHERS
- PROPOSED CONTOURS
- FIBER ROLL
- CHANNEL WETLAND CONNECTIONS
- FLOODPLAIN BENCHES
- OFF CHANNEL WETLANDS
- PLANTING ISLANDS
- EXISTING TREE

NOTE:

1. BACKWATER AREA GRADING SHALL MAINTAIN POSITIVE DRAINAGE TOWARD RINEARSON CREEK.
2. SALVAGE TREES MARKED FOR REMOVAL AND PLACE ON SITE AT THE DIRECTION OF THE ENGINEER.
3. PROTECT ALL TREES NOT SHOWN FOR REMOVAL ON PLANS.

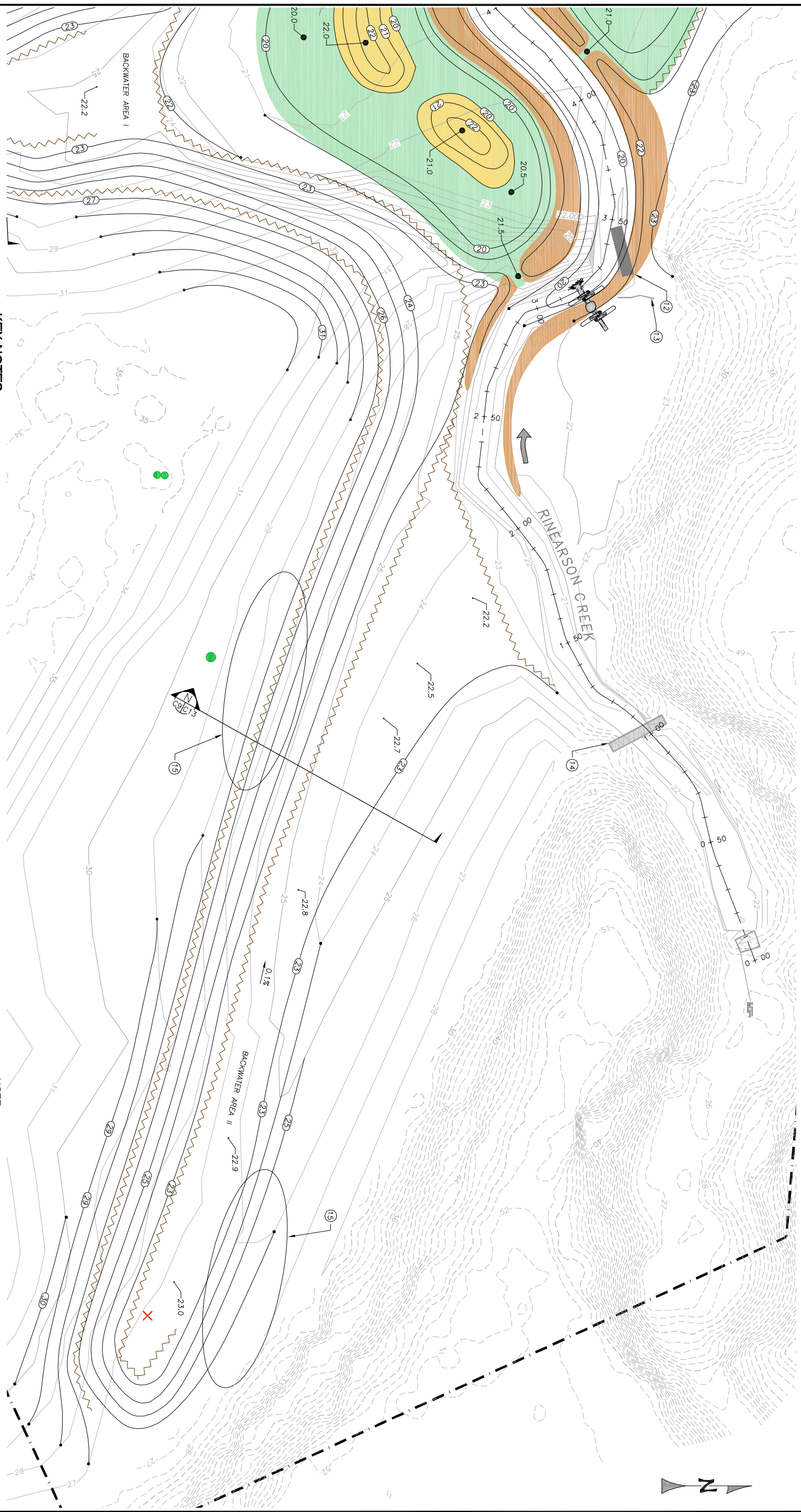
BACKWATER AREA I GRADING PLAN

SCALE: 1" = 20'

KEY NOTES

- (2) DEMOLISH EXISTING BURIED CONCRETE PIPE
- (3) DEMOLISH EXISTING REMNANT CONCRETE WALL

<p>DESIGNED BY: J.H. DRAWN BY: A.L./J.H. CHECKED BY: M.M./M.W. DATE: 08/08/17 JOB NO.: 11-042</p>	<p>RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL</p>	<p>BACKWATER AREA I GRADING PLAN</p>	<p>PREPARED AT THE REQUEST OF: RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC</p>	<p>REGISTERED PROFESSIONAL ENGINEER 77870PE OREGON JANUARY 3, 2011 JAKE DYLAN HOFELD EXPIRES: 6/30/2019</p>	<p>8/8/17 DATE</p>	<p>WATERWAYS CONSULTING INC.</p> <p>1020 SW TAYLOR STREET, STE. 380 PORTLAND, OR 97205 PH:(503)227-5979 // FAX:(888)819-6847 WWW.WATWAYS.COM</p>
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LEGEND

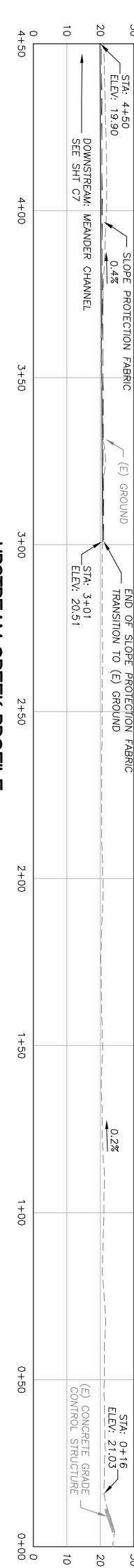
- 85- 86- EXISTING CONTOURS
- 85- 86- EXISTING CONTOURS BY OTHERS
- 100- 100- PROPOSED CONTOURS
- PROJECT BOUNDARY
- FIBER ROLL
- FLOODPLAIN BENCHES
- OFF CHANNEL WETLANDS
- PLANTING ISLANDS
- EXISTING TREE
- TREE TO BE REMOVED

KEY NOTES

- 12 DEMOLISH EXISTING BURIED CONCRETE PIPE
- 13 DEMOLISH EXISTING REMNANT CONCRETE WALL
- 14 PROTECT EXISTING BRIDGE
- 15 MODIFY LOCAL GRADING AS NECESSARY TO PROTECT EXISTING TREES AT DIRECTION OF ENGINEER

BACKWATER AREA II GRADING PLAN
SCALE: 1" = 20'

- NOTE:**
1. GRADING OF BACKWATER AREAS SHALL MAINTAIN POSITIVE DRAINAGE TOWARD RINEARSON CREEK
 2. SALVAGE TREES MARKED FOR REMOVAL AND PLACE ON SITE AT THE DIRECTION OF THE ENGINEER
 3. PROTECT ALL TREES NOT SHOWN FOR REMOVAL ON PLANS.
 4. PROTECT ALL PRIVATE STORMWATER INFRASTRUCTURE. CONTACT JASON RICE WITH OAK LODGE SANITARY DISTRICT IF ANY ISSUES ARISE DURING CONSTRUCTION 503-490-0016.

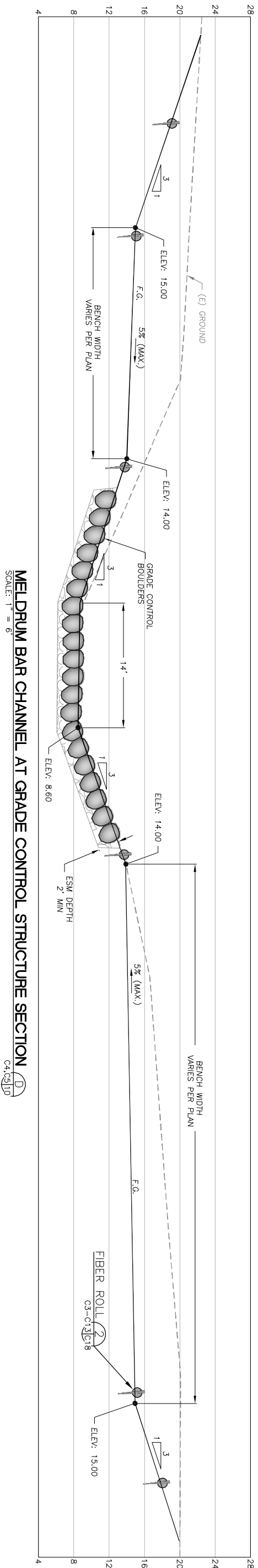
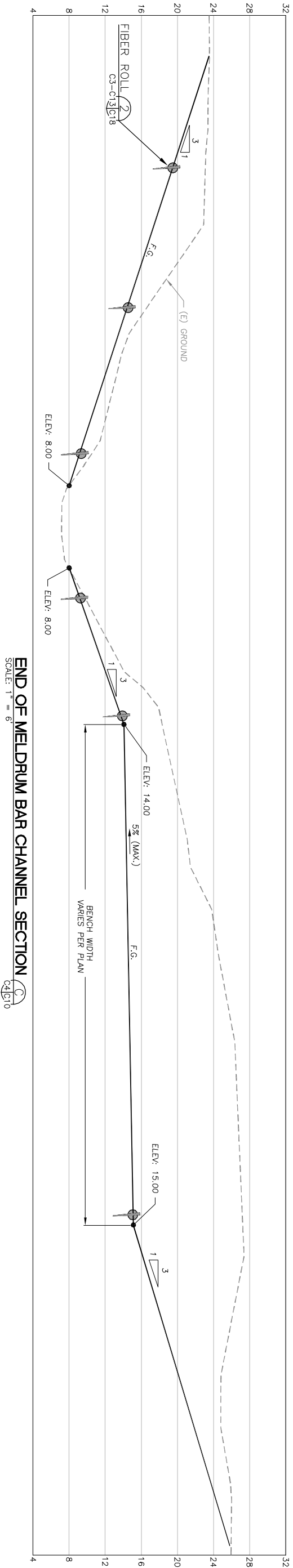
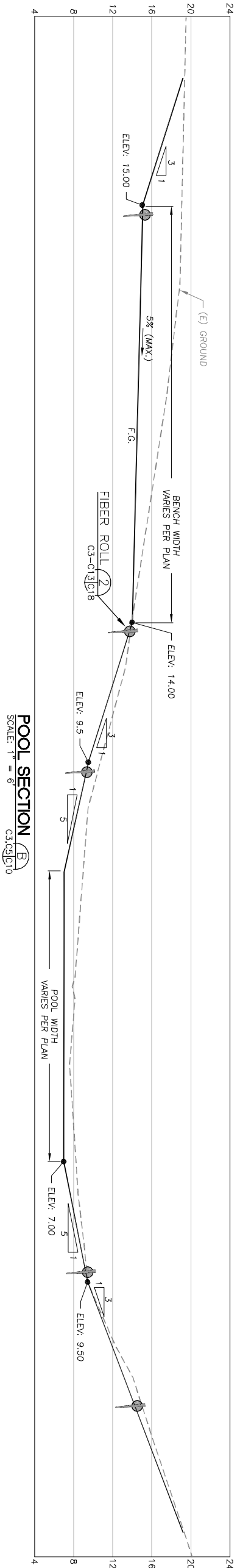
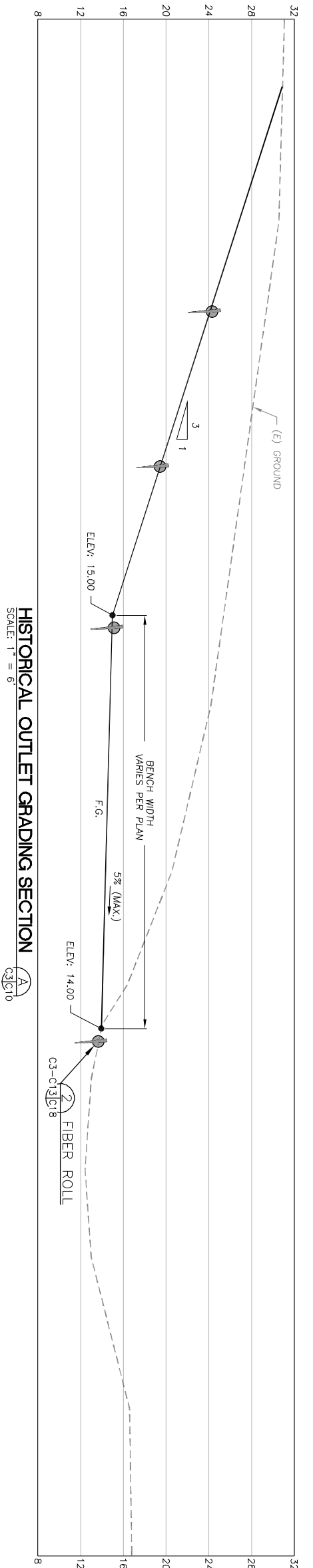


UPSTREAM CREEK PROFILE
SCALE: 1" = 20'

<p>C9 OF 18</p>	<p>BACKWATER AREA II GRADING PLAN AND UPSTREAM CREEK PROFILE</p>	<p>PREPARED AT THE REQUEST OF: RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC</p>	<p>REGISTERED PROFESSIONAL ENGINEER 77870PE JAKE D. HOFELD OREGON JANUARY 3, 2011 JAKE DYLAN HOFELD EXPIRES: 6/30/2019</p>	<p>8/8/17 DATE</p>	<p>WATERWAYS CONSULTING INC.</p> <p>1020 SW TAYLOR STREET, STE. 380 PORTLAND, OR 97205 PH: (503)227-5979 // FAX: (888)819-6847 WWW.WATWAYS.COM</p>
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DESIGNED BY: J.H.
DRAWN BY: A.L./J.H.
CHECKED BY: M.M./M.W.
DATE: 08/08/17
JOB NO.: 11-042

BAR IS ONE INCH ON ORIGINAL DRAWING ADJUST SCALES FOR REDUCED PLOTS.



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8/8/17 DATE
REGISTERED PROFESSIONAL ENGINEER 77870PE
JAKE D. HOFELD
OREGON JANUARY 3, 2011
JAKE DYLAN HOFELD
EXPIRES: 6/30/2019

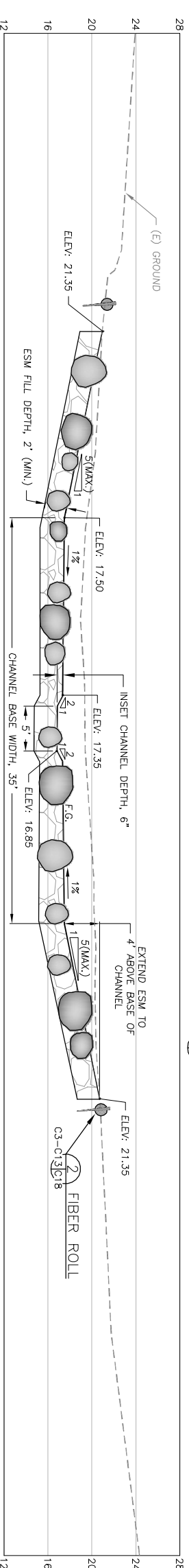
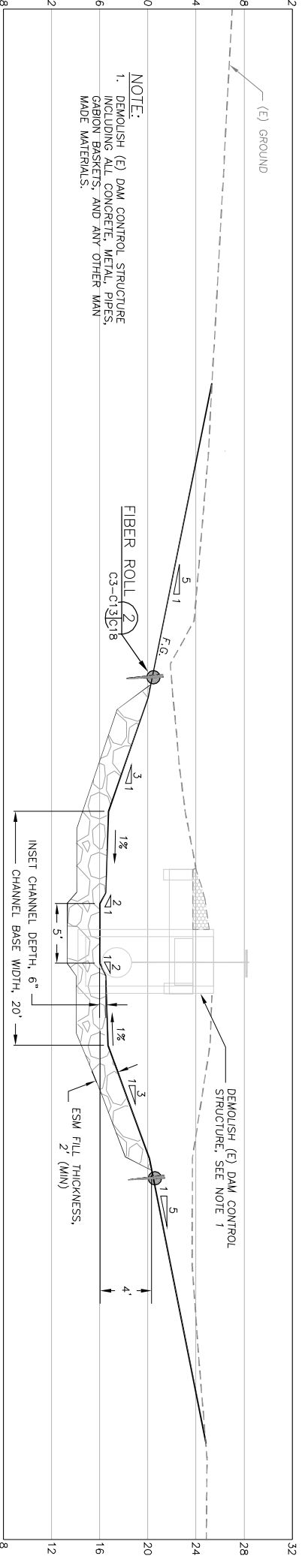
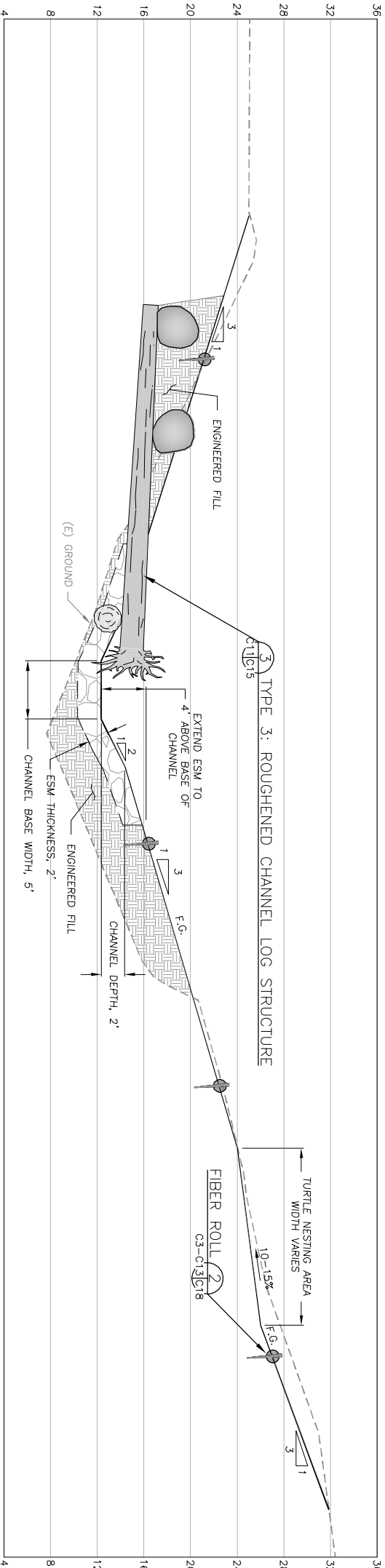
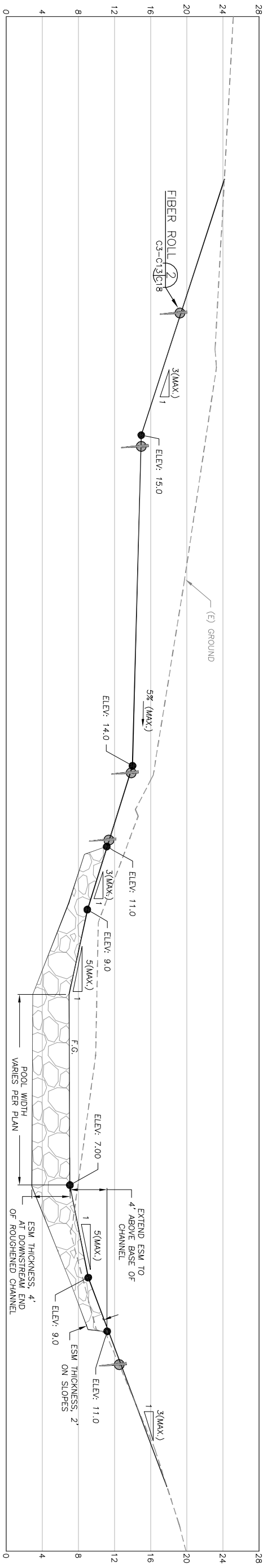
PREPARED AT THE REQUEST OF:
RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC

SECTIONS A-D

RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL

DESIGNED BY: J.H.
DRAWN BY: A.L./J.H.
CHECKED BY: M.M.
DATE: 08/08/17
JOB NO.: 11-042
BAR IS ONE INCH ON ORIGINAL DRAWING ADJUST SCALES FOR REDUCED PLOTS.
0 1" = 18'

C10 OF 18



WATERWAYS CONSULTING INC.
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REGISTERED PROFESSIONAL ENGINEER
77870PE
OREGON
JANUARY 3, 2011
DAKE DYLAN HOFELD
EXPIRES: 6/30/2019

8/8/17 DATE

PREPARED AT THE REQUEST OF:
RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC

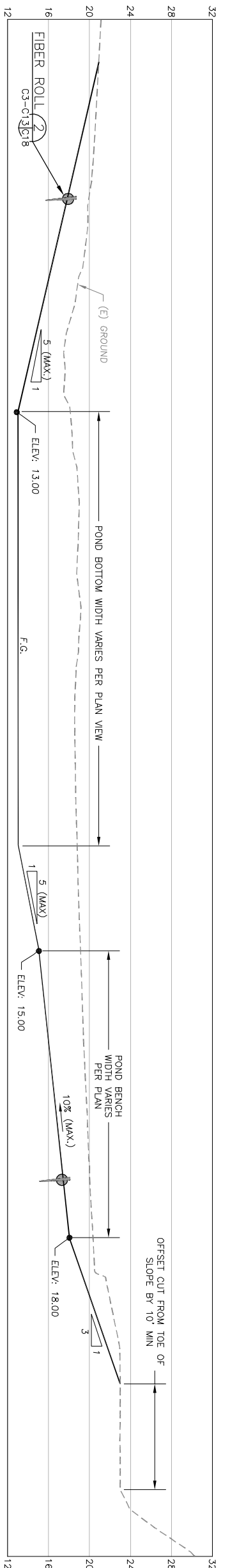
SECTIONS E-H

RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL

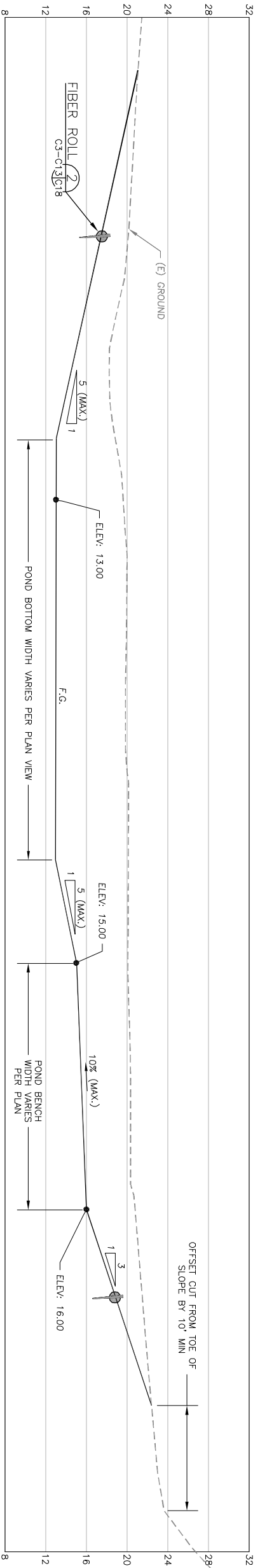
DESIGNED BY: J.H.
DRAWN BY: A.L./J.H.
CHECKED BY: M.M./M.M.
DATE: 08/08/17
JOB NO.: 11-042

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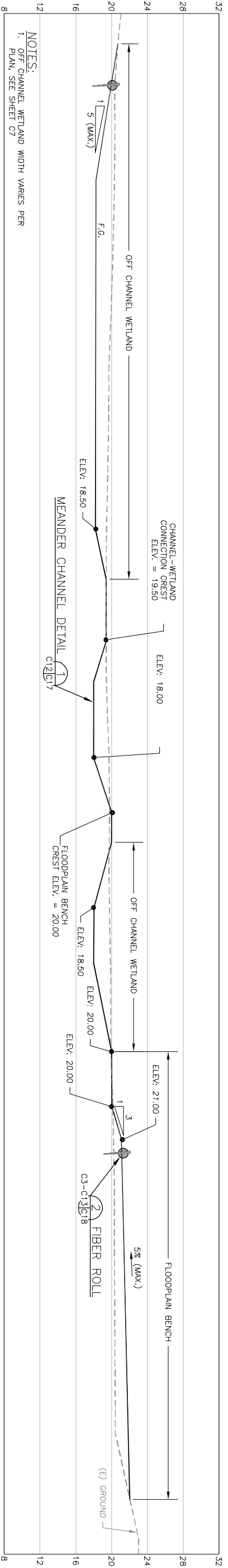
C11 OF 11
18



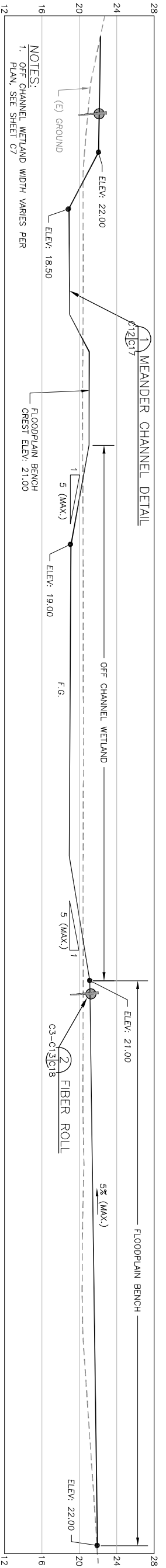
POND SECTION
SCALE: 1" = 8'
J
C6/C12



POND SECTION
SCALE: 1" = 6'
K
C6/C12



MEANDER CHANNEL SECTION
SCALE: 1" = 6'
K
C7/C17



MEANDER CHANNEL SECTION
SCALE: 1" = 6'
L
C7/C17

SECTIONS I-L

PREPARED AT THE REQUEST OF:
**RINEARSON NATURAL AREA,
LLC CARE OF FALLING
SPRINGS, LLC**

REGISTERED PROFESSIONAL
ENGINEER
77870PE
JANUARY 3, 2017
OREGON
JAKE DYLAN HOFELD
EXPIRES: 6/30/2019
JAKE D. HOFELD

8/8/17
DATE

WATERWAYS
CONSULTING INC.

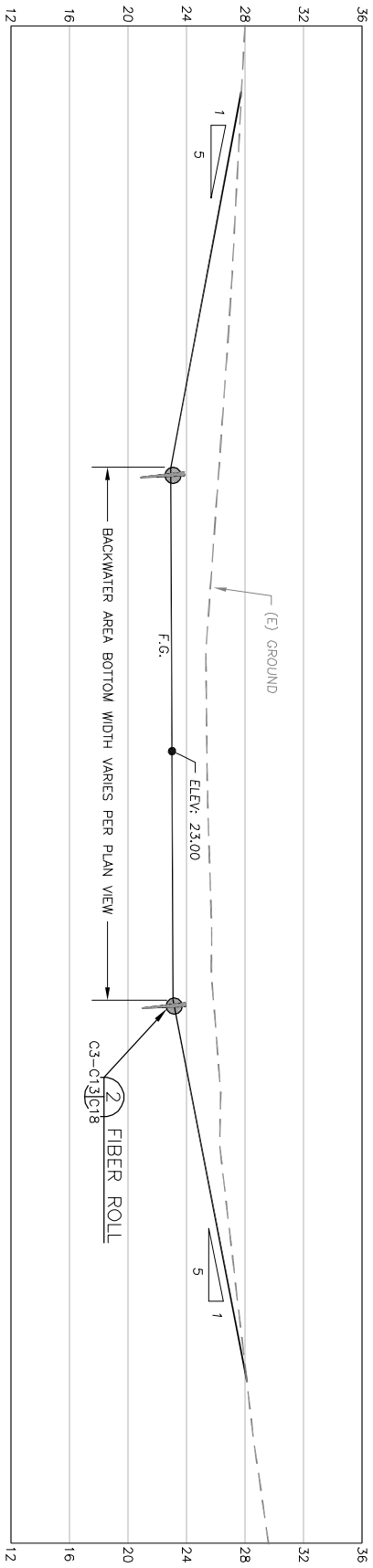
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PORTLAND, OR 97205
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**RINEARSON NATURAL AREA
RESTORATION PROJECT
100% DESIGN SUBMITTAL**

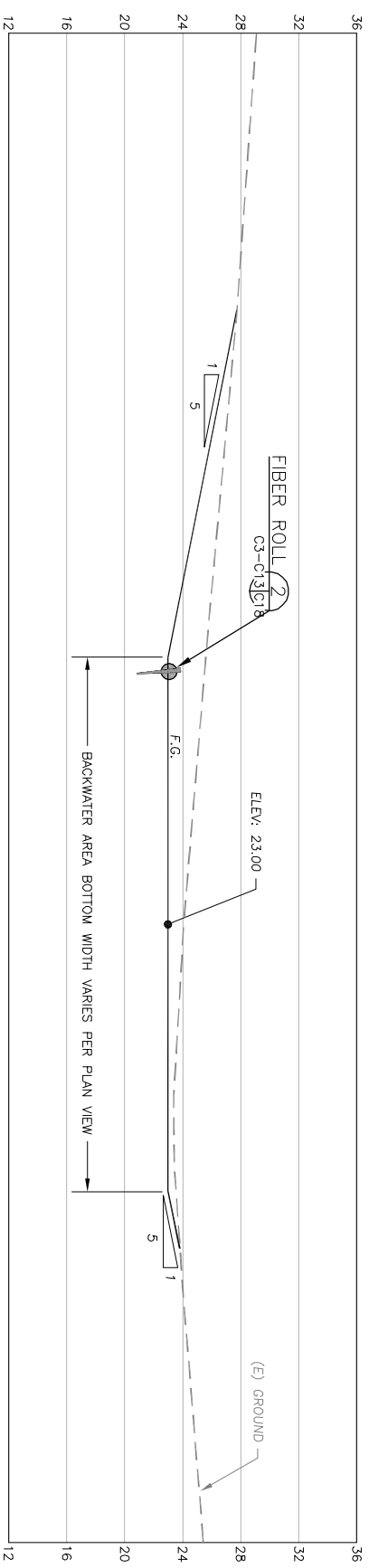
DESIGNED BY: J.H.
DRAWN BY: A.L./J.H.
CHECKED BY: M.M./M.M.
DATE: 08/08/17
JOB NO.: 11-042

BAR IS ONE INCH ON
ORIGINAL DRAWING
ADJUST SCALES FOR
REDUCED PLOTS.
0 1"

C12
12 OF 18



BACKWATER AREA I
SCALE: 1" = 6'



BACKWATER AREA II
SCALE: 1" = 6'

WATERWAYS CONSULTING INC.
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WWW.WATWAYS.COM

8/8/17 DATE

 JAKE D. HOFELD

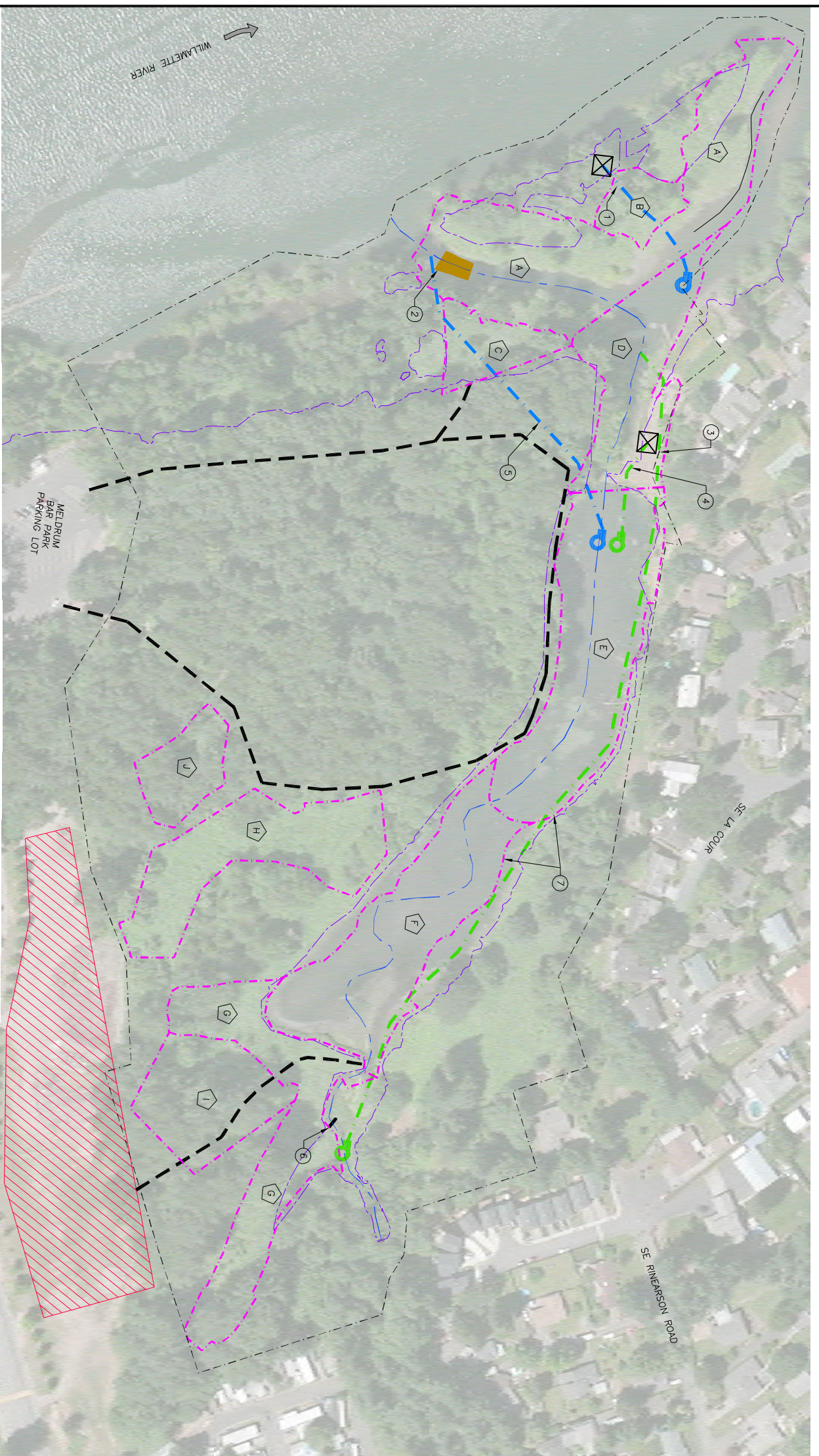
PREPARED AT THE REQUEST OF:
RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC

SECTIONS M-N

RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL

DESIGNED BY: J.H.
 DRAWN BY: A.L./J.H.
 CHECKED BY: M.M.
 DATE: 08/08/17
 JOB NO.: 11-042

BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS.



CONSTRUCTION PHASING NOTES

1. PHASE 1: POND, MEANDER CHANNEL, AND BACKWATER CONSTRUCTION
 - 1.1. CONSTRUCT TEMPORARY ACCESS ROADS AND PERIMETER EROSION AND SEDIMENTATION CONTROL STRUCTURES FROM 1200' BENT REEF TO MAX ELEVATION. OPEN PILES ON EXISTING DAM TO LOWER THE POND SURFACE ELEVATION.
 - 1.2. ISOLATE THE UPSTREAM END OF RINEARSON CREEK WITH FISH BLOCK NETS AND CONDUCT FISH SALVAGE BETWEEN (E) DAM AND UPSTREAM LIMITS OF PROJECT AREA.
 - 1.3. INSTALL DIVERSION PUMP AT THE UPSTREAM END OF THE PROJECT AREA TO PUMP FLOW AROUND THE PHASE 1 PROJECT AREA.
 - 1.4. INSTALL DEWATERING PUMP(S) IN POND AND PUMP WATER TO FILTER BAGS.
 - 1.5. CONSTRUCT MASS GRADING OF POND AND UPSTREAM CHANNEL.
 - 1.6. INSTALL PERMANENT EROSION CONTROL BMPS INCLUDING FIBER ROLLS AND SLOPE PROTECTION FABRIC.
 - 1.7. SEED AND MULCH ALL DISTURBED SOILS.
 - 1.8. REMOVE DIVERSION PUMP FROM THE UPSTREAM END OF RINEARSON CREEK.
 - 1.9. MAINTAIN THE DEWATERING PUMP(S) IN THE POND FOR DEWATERING/DIVERGING FLOW DURING PHASE 2 CONSTRUCTION.
2. PHASE 2: ROUGHENED CHANNEL, MELDRUM BAR CHANNEL, AND HISTORICAL OUTLET AREA CONSTRUCTION
 - 2.1. DIVERT CREEK FLOW FROM THE POND TO THE WILLAMETTE RIVER.
 - 2.2. CONSTRUCT TEMPORARY ACCESS ROAD ACROSS THE MELDRUM BAR CHANNEL AT THE WESTERN END OF THE PROJECT AND INSTALL PERIMETER EROSION AND SEDIMENT CONTROL BMPS.
 - 2.3. CONDUCT FISH SALVAGE IN ISOLATED POOL DOWNSTREAM OF THE DAM.
 - 2.4. INSTALL DEWATERING PUMP(S) IN ISOLATED POOL AND PUMP WATER TO FILTER BAGS.
 - 2.5. DEMOLISH DAM STRUCTURES, CONSTRUCT ROUGHENED CHANNEL, GRADE MELDRUM BAR CHANNEL, AND GRADE HISTORICAL OUTLET AREA.
 - 2.6. INSTALL PERMANENT EROSION CONTROL BMPS INCLUDING FIBER ROLLS AND SLOPE PROTECTION FABRIC.
 - 2.7. SEED AND MULCH ALL DISTURBED SOILS.
 - 2.8. REMOVE ALL DIVERSION AND DEWATERING PUMPS TO RELEASE FLOW INTO THE NEW CONSTRUCTED CHANNEL.

GRADING SUMMARY TABLE

GRADING AREA	UNCLASSIFIED EXCAVATION, CY	ESM, CY	ENGINEERED FILL, CY	UNCLASSIFIED FILL, CY	GRADING ABOVE OR W/ (±) CUT/±	DESCRIPTION AND CRITERIA
A	12,650	93	0	0	-4589	HISTORICAL AND MELDRUM BAR CHANNEL: GRADING PER PLANS
B	0	0	0	910	0	ISLAND FILL AREA: MAX FILL SLOPES 3:1. FILL UP TO ELEVATION 24'
C	0	0	0	770	0	MELDRUM BAR CHANNEL FILL AREA: MAX FILL SLOPES 3:1. FILL UP TO ELEVATION 24'
D	2170	675	120	0	-260	ROUGHENED CHANNEL AND POOL: GRADING PER PLANS
E	7150	0	0	0	-37	POND GRADING: ASSUMES 1' OF SETTLEMENT BELOW E.G. FROM DEWATERING
F	1380	0	1050	0	0	MEANDER CHANNEL/WETLAND GRADING: ASSUMES 0.5' OF SETTLEMENT BELOW E.G. FROM DEWATERING
G	4240	0	0	0	-4052	UPPER BACKWATER AREAS: GRADING PER PLANS
H	0	0	0	11044	+11044	OVERLOOK FILL AREA: MAX FILL SLOPES 3:1. FILL ABOVE ELEVATION OF 24' TO MAX DEPTH OF 6'
I	0	0	0	3950	+3950	OLD ROAD UPLAND FILL AREA: MAX FILL SLOPES 3:1. FILL ABOVE ELEVATION OF 24'
J	0	0	0	10920	+10920	UPLAND DEPRESSION FILL AREA: MAX FILL SLOPES 3:1. MAX FILL DEPTH OF 20'

GRADING SUMMARY TABLE NOTE: THE QUANTITIES SHOWN REPRESENT ESTIMATES BASED ON THE EXISTING AND FINISHED GRADES, PROFILES, AND CROSS SECTIONS. EXCAVATION QUANTITIES SHOWN DO NOT ACCOUNT FOR ANY EXCAVATION NECESSARY TO INSTALL ESM OR LOG STRUCTURES. ALL EXCESS MATERIALS SHALL BE DISPOSED OF PER THE TECHNICAL SPECIFICATIONS.

GRADING, ACCESS, AND PHASING PLAN
SCALE: 1" = 100'

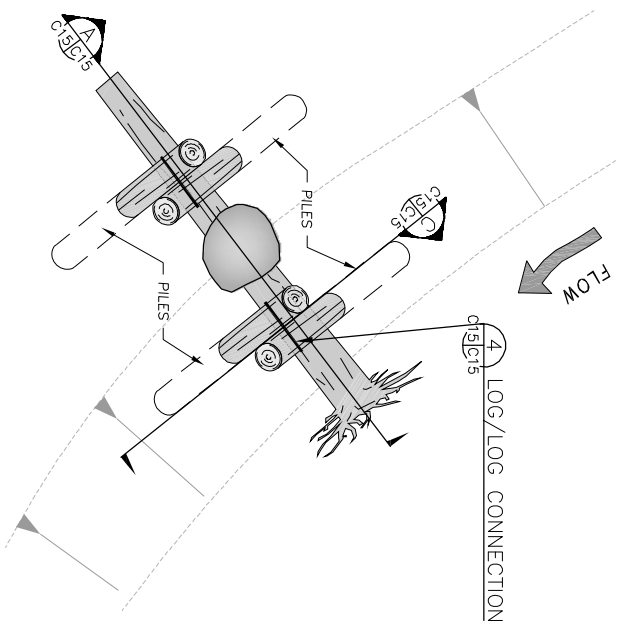
LEGEND

- PROJECT BOUNDARY
- - - PROPOSED FLOW LINE
- - - TEMPORARY ACCESS ROUTE
- ORDINARY HIGH WATER (24.1' NAVD 88)
- PHASE I DEWATERING HOSE/PIPE
- PHASE II DEWATERING HOSE/PIPE
- PHASE I PUMP
- PHASE II PUMP
- ⊗ FILTER BAG
- ▭ STAGING AREA
- ▭ GRADING AREAS

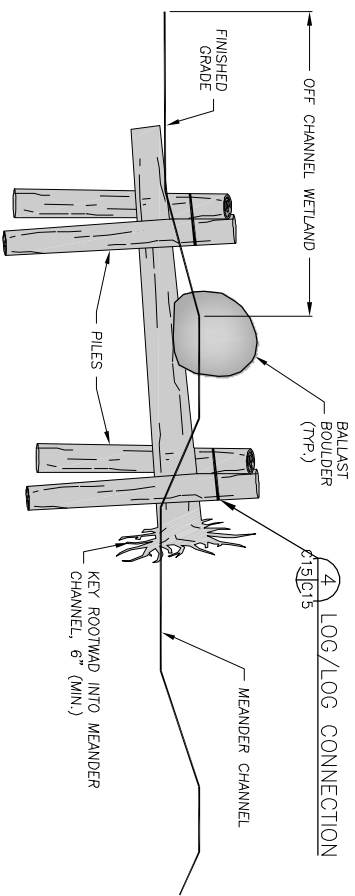
KEY NOTES

- 1 PHASE II DEWATERING PIPE
- 2 CONSTRUCT EARTHEN PLUG ACROSS CHANNEL TO ACCESS WESTERN PORTION OF PROJECT
- 3 PHASE I DIVERSION PIPE
- 4 PHASE II DEWATERING PIPE
- 5 PHASE II DIVERSION PIPE
- 6 INSTALL SANDBAG BERM DOWNSTREAM OF PUMP TO ISOLATE THE PHASE I WORK AREA

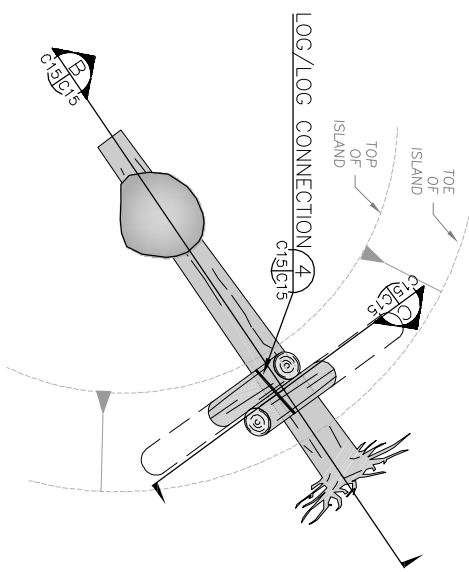
<p>C14 OF 18</p>	<p>RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL</p>	<p>GRADING, ACCESS AND PHASING PLAN</p>	<p>PREPARED AT THE REQUEST OF: RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC</p>	<p>REGISTERED PROFESSIONAL ENGINEER 77870PE JANUARY 3, 2011 DAKE DYLAN HOFELD EXPIRES: 6/30/2019</p>	<p>8/8/17 DATE</p>	<p>WATERWAYS CONSULTING INC. 1020 SW TAYLOR STREET, STE. 380 PORTLAND, OR 97205 PH:(503)227-5979 // FAX:(888)819-6847 WWW.WATWAYS.COM</p>
<p>DESIGNED BY: J.H. DRAWN BY: A.L./J.H. CHECKED BY: M.M. DATE: 08/08/17 JOB NO.: 11-042</p> <p>BAR IS ONE INCH ON ORIGINAL DRAWING ADJUST SCALES FOR REDUCED PLOTS</p>						



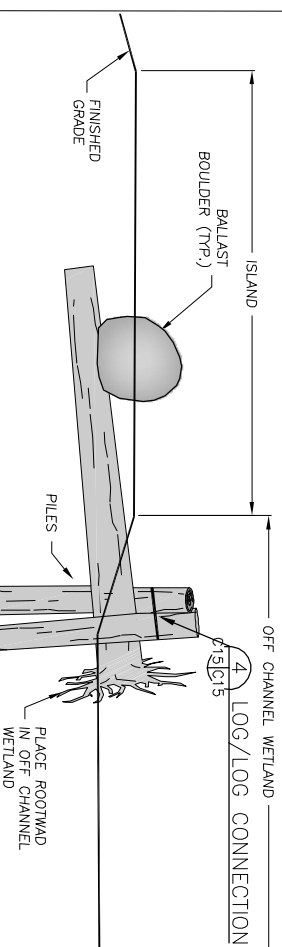
TYPE 1: MEANDER CHANNEL LOG STRUCTURES
SCALE: 1" = 5'



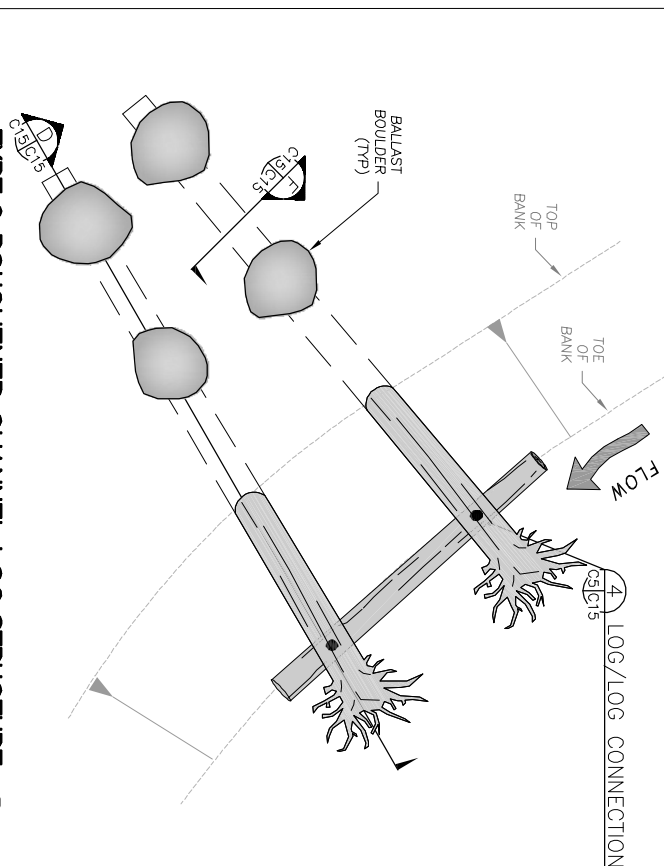
TYPE 1: TYPICAL ROOTWAD SECTION
SCALE: 1" = 5'



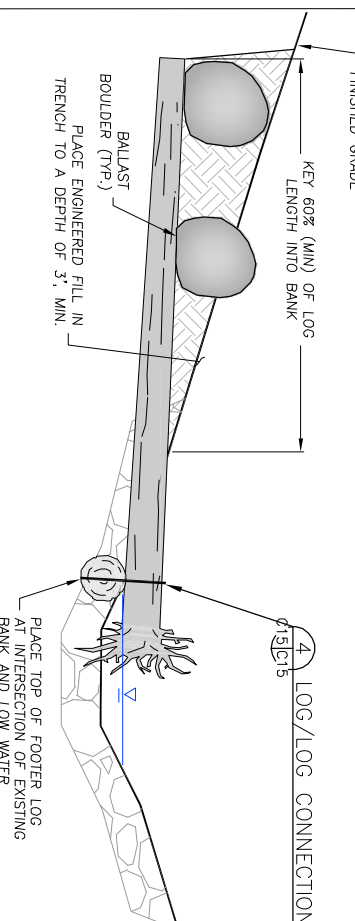
TYPE 2: OFF CHANNEL WETLAND LOG STRUCTURE
SCALE: 1" = 5'



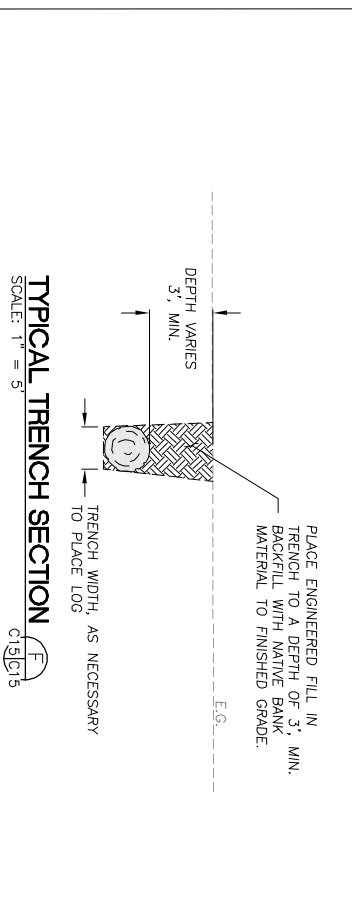
TYPE 2: TYPICAL ROOTWAD SECTION
SCALE: 1" = 5'



TYPE 3: ROUGHENED CHANNEL LOG STRUCTURE
SCALE: 1" = 5'



TYPE 3: TYPICAL ROOTWAD SECTION
SCALE: 1" = 5'



TYPICAL TRENCH SECTION
SCALE: 1" = 5'

LOG STRUCTURE NOTES

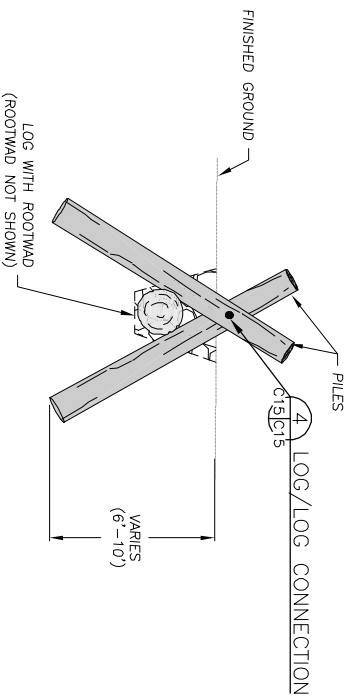
1. PLACEMENT LOCATIONS: LOG STRUCTURE DESIGNS ARE SHOWN CONCEPTUALLY DUE TO THE INHERENT VARIABILITY OF THE MATERIAL PROPERTIES. THE DESIGN REQUIREMENTS THAT THE ENGINEER WILL OBSERVE CONSTRUCTION OF THE DESIGN IS MET. OBSERVATIONS MUST INCLUDE LOG AND BOULDER SELECTION, PLACEMENT, AND BACKFILLING. ANY LOG STRUCTURES CONSTRUCTED WITHOUT THE ENGINEER PRESENT ON-SITE MAY RESULT IN REJECTION OF THE WORK BY THE ENGINEER.
2. LOGS: LOGS SHALL BE DOUGLAS FIR, CEDAR, HEMLOCK, OR OTHER SPECIES APPROVED BY THE ENGINEER. SOUND AND FREE OF SIGNIFICANT DECAY. MATERIALS FOR USE IN THE STRUCTURES SHALL MEET THE FOLLOWING MINIMUM COUNT AND SIZE CRITERIA:

LOG STRUCTURE TABLE

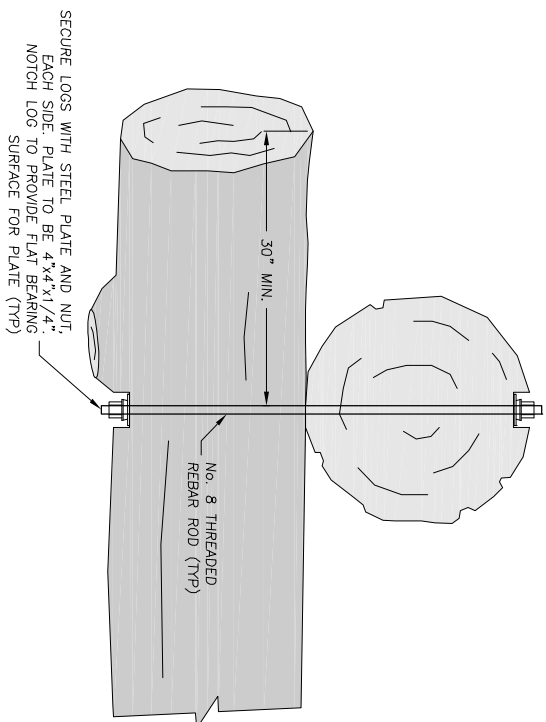
ITEMS PER STRUCTURE	NUMBER OF STRUCTURES	LOGS WITH ROOTWAD	PILES/TOE LOGS	BOULDERS	LOG/LOG CONNECTIONS
TYPE 1	5	1	4	5	2
TYPE 2	8	1	2	5	1
TYPE 3	4	2	1	2	2
		TOTAL	7	12	5

ITEM	DIAMETER	LENGTH	TOTAL COUNT
LOG WITH ROOTWAD	18"-24" (MIN. 18" AT ANY POINT)	25'-30'	21
PILES/ TOE LOGS	12"-18" (MIN. 12" AT ANY POINT)	10'-15'	40
TOTAL			61

ITEM	TOTAL COUNT
BALLAST BOULDERS	73
LOG/LOG CONNECTIONS	26



TYPE 1+2: TYPICAL PILES SECTION
SCALE: 1" = 5'



LOG/LOG CONNECTION
SCALE: 1" = 1'

LOG STRUCTURE DETAILS

PREPARED AT THE REQUEST OF:
RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC

REGISTERED PROFESSIONAL ENGINEER 77870PE
DAKE D. HOFELD
OREGON JANUARY 3, 2011
DAKE DYLAN HOFELD
8/8/17 DATE
EXPIRES: 6/30/2019

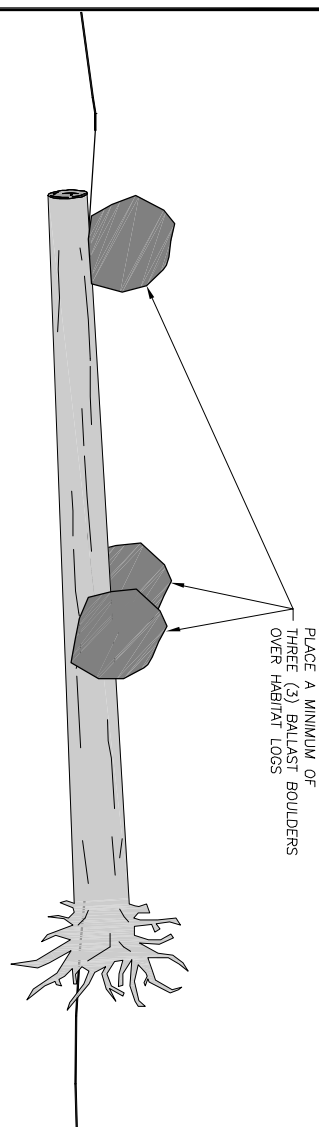
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BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS.

C15
15 OF 18

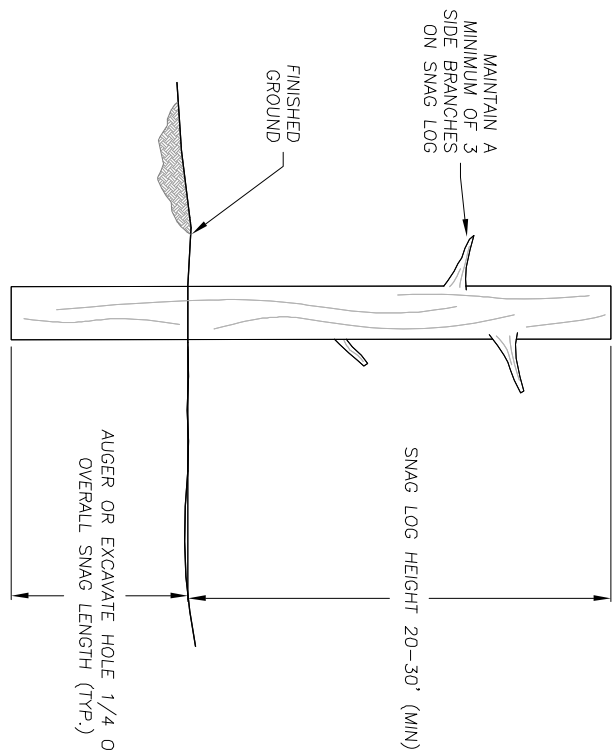
RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL



UPLAND LOG STRUCTURE



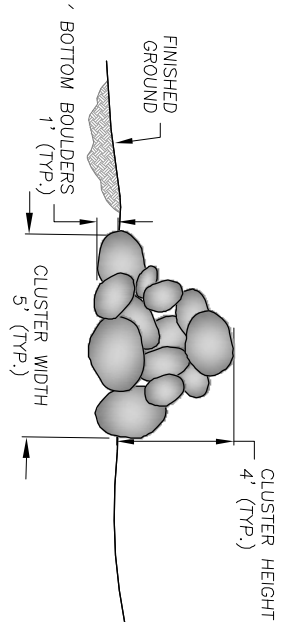
SCALE: 1" = 4'



SNAG LOG



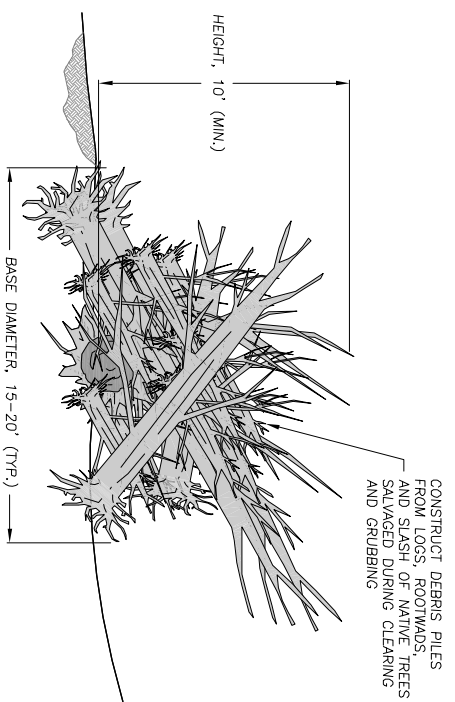
SCALE: 1" = 4'



BOULDER CLUSTER



SCALE: 1" = 4'



DEBRIS PILE



SCALE: 1" = 4'

CONSTRUCT DEBRIS PILES FROM LOGS, ROOTWADS AND SLASH OF NATIVE TREES SALVAGED DURING CLEARING AND GRUBBING

UPLAND HABITAT FEATURE NOTES:

- ALL UPLAND HABITAT FEATURE (INCLUDING LOGS, SNAGS, DEBRIS PILES, AND BOULDER CLUSTERS) LOCATIONS SHALL BE SELECTED BY THE OWNER'S REPRESENTATIVE TO MAXIMIZE THE HABITAT VALUE BASED ON FIELD CONDITIONS.
- NO CABLES OR CHAINS SHALL BE USED IN THE CONSTRUCTION OF ANY HABITAT FEATURES SHOWN.
- LOGS: NATIVE TREES AND BRUSH SALVAGED DURING CLEARING AND GRUBBING OPERATIONS (INCLUDING ALDERS AND COTTONWOODS) SHALL BE USED FOR CONSTRUCTION OF DEBRIS PILES AND HABITAT LOGS ABOVE ORDINARY HIGH WATER. FOR GRAPHICAL CLARITY, MOST LOGS ARE SHOWN WITH BRANCHES OMITTED. HOWEVER, IT IS PREFERRED THAT LOGS BE SUPPLIED WITH THE MAXIMUM NUMBER OF BRANCHES AND ROOTS INTACT TO ENHANCE PERFORMANCE OF THE HABITAT ELEMENTS.
- SNAG LOGS: SNAG LOGS SHALL EITHER BE SALVAGED OR IMPORTED FROM ELSEWHERE AND INSTALLED ON SITE PER THE DETAILS, OR SHALL BE CREATED BY GIRDLING AN EXISTING TREE MEETING THE MINIMUM DIMENSIONS LISTED BELOW.
- MATERIAL QUANTITIES FOR HABITAT ELEMENTS ABOVE ORDINARY HIGH WATER (53 ELEMENTS TOTAL):

ITEM (QUANTITY)	DIAMETER*	LENGTH	TOTAL QUANTITY
LOGS W/ ROOTWADS	18" - 30"	30' - 40'	10
SNAG LOGS**	18" - 24"	25' - 40'	18
BOULDER CLUSTERS	15
DEBRIS PILES	10

*A MINIMUM OF 3 SNAG LOGS SHALL BE 40' LONG.
 **BOULDER CLUSTERS SHALL CONSIST OF COBBLES AND BOULDERS RANGING IN SIZE FROM 2" TO 2' WITH NO VOIDS LARGER THAN 6".
 ***DEBRIS PILES SHALL CONSIST OF A MINIMUM OF 2 ROOTWADS COVERED LOOSELY WITH SLASH, BRANCHES, AND LOGS SALVAGED FROM THE PROJECT AREA DURING CLEARING AND GRUBBING OPERATIONS.



WATERWAYS CONSULTING INC.
 1020 SW TAYLOR STREET, STE. 380
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PREPARED AT THE REQUEST OF:
RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC

REGISTERED PROFESSIONAL ENGINEER 77870PE
 JAKE D. HOFELD
 OREGON JANUARY 3, 2011
 JAKE DYLAN HOFELD
 EXPIRES: 6/30/2019

8/8/17 DATE

RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL

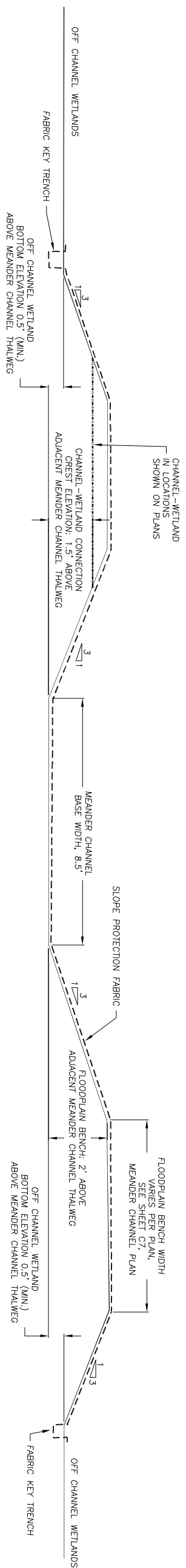
UPLAND HABITAT FEATURE DETAILS

DESIGNED BY: J.H.
 DRAWN BY: A.L./J.H.
 CHECKED BY: M.M./M.M.
 DATE: 08/08/17
 JOB NO.: 11-042

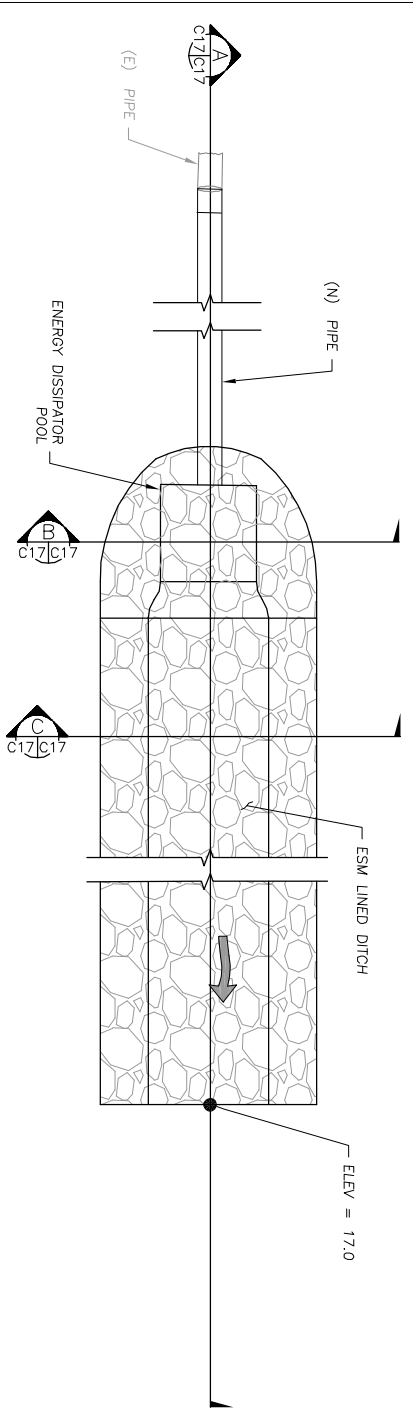
BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS.

0 1" = 1"

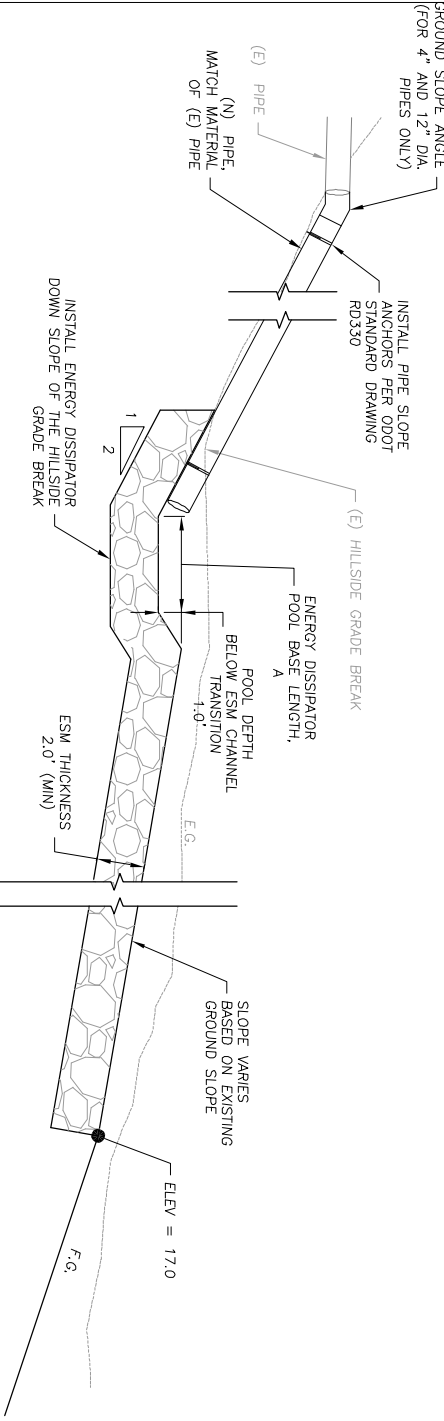
C16 OF 17



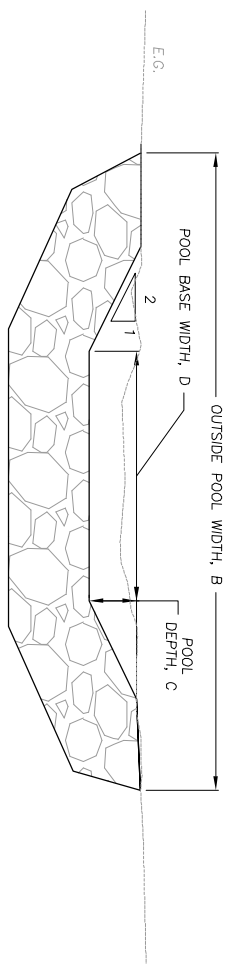
TYPICAL MEANDER CHANNEL DETAIL
SCALE: 1" = 2'
c17c17 (1)



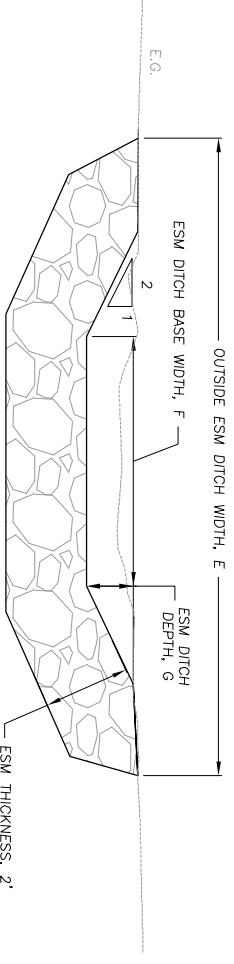
TYPICAL STORMWATER OUTFALL DITCH PLAN
SCALE: N.T.S.



STORMWATER OUTFALL DITCH PROFILE
SCALE: N.T.S.



ENERGY DISSIPATOR POOL SECTION
SCALE: N.T.S.



ESM DITCH SECTION
SCALE: N.T.S.

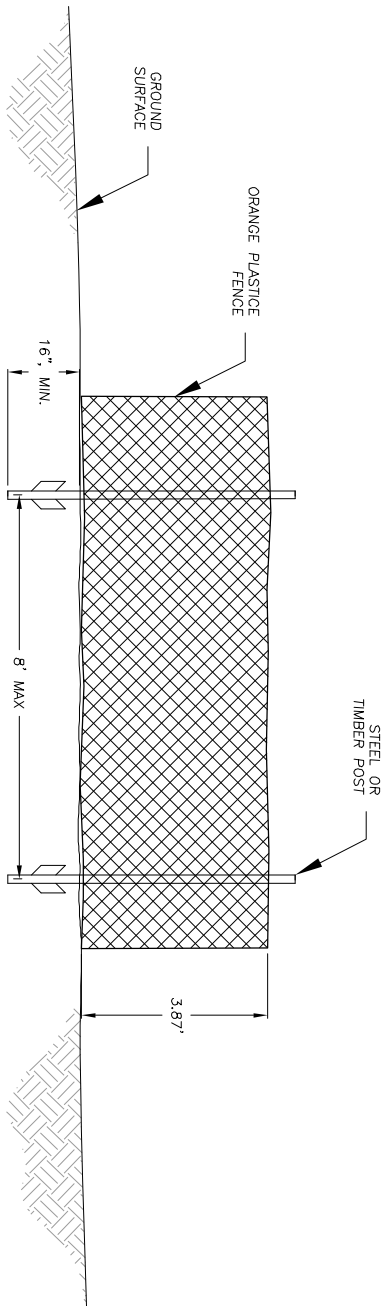
OUTFALL DITCH DIMENSIONS TABLE

PIPE DIAMETER	DIMENSIONAL VARIABLE, FT						
	A	B	C	D	E	F	G
4 INCHES	1	10	1.5	1.5	10*	1*	0.5*
12 INCHES	4	16	2	4	16	4	2
15 INCHES	4	17	2	5	17	5	2

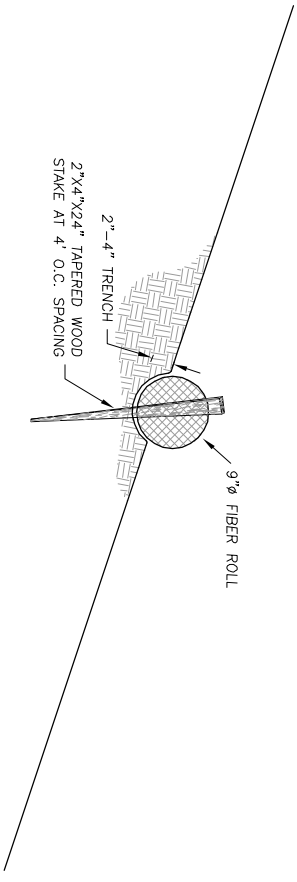
*STORMWATER OUTFALL CHANNEL FOR 4 INCH DIAMETER PIPE SHALL TRANSITION INTO 12 INCH PIPE OUTFALL CHANNEL AS SHOWN ON THE PLANS. DIMENSIONAL VARIABLES FOR THE 12 INCH PIPE CHANNEL SHALL GOVERN DOWNSTREAM OF THIS CONFLUENCE.

STORMWATER DITCH OUTFALL DETAIL
SCALE: N.T.S.

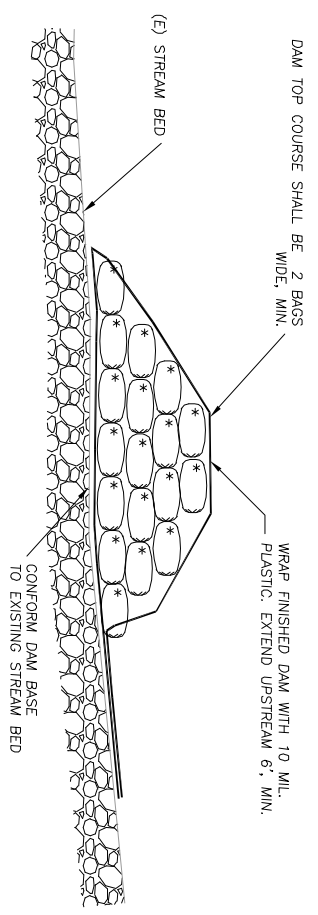




ESA FENCE DETAIL
SCALE: 1" = 2'



FIBER ROLL
SCALE: 1" = 1'



DIVERSION DAM DETAIL
SCALE: 1" = 5'

DIVERSION NOTES

THE DIVERSION PLAN SHOWN IS SCHEMATIC. GENERAL REQUIREMENTS ARE PROVIDED BELOW. THE FULL REQUIREMENTS OF THE DIVERSION AND DEWATERING PLAN ARE SPECIFIED IN THE PROJECT TECHNICAL SPECIFICATIONS.

1. GENERAL
 - 1.1. POTENTIAL IMPACTS TO WATER QUALITY DOWNSTREAM OF THE PROJECT SITE. THE PROPOSED DIVERSION STRUCTURE SHALL CONSIST OF A SEALED SAND BAG COFFER DAM AND PUMPED OR GRAVITY FLOW PIPELINES. THE DAM AND METHOD OF SEALING SHALL BE PLACED AT AN APPROPRIATE DEPTH TO CAPTURE SUBSURFACE STREAM FLOW, AS NEEDED TO DEWATER THE STREAMBED.
 - 1.2. NO OTHER DIVERSION METHOD SHALL BE USED WITHOUT AUTHORIZATION OF THE ENGINEER. IF AN ALTERNATE DIVERSION METHOD IS PREFERRED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUBMIT A PLAN TO THE ENGINEER FOR APPROVAL, DETAILING THE DESIRED DIVERSION METHOD.
 - 1.3. CONFIRM THAT A FAVORABLE LONG TERM WEATHER FORECAST (1 WEEK, MIN.) IS OBSERVED PRIOR TO PLACEMENT OF DIVERSION STRUCTURES.
 - 1.4. PRIOR TO PLACEMENT OF DIVERSION STRUCTURE, REMOVE FISH FROM THE PROJECT REACH, IN ACCORDANCE WITH SECTION 2.
 - 1.5. APPROVAL OF THE COMPLETED WORK, REMOVE DIVERSION BEGINNING AT THE DOWNSTREAM LIMIT, IN AN UPSTREAM DIRECTION.
2. FISH REMOVAL
 - 2.1. FISH SHALL BE REMOVED FROM THE PROJECT SITE BY A QUALIFIED FISHERIES BIOLOGIST, AUTHORIZED BY THE NATIONAL MARINE FISHERIES SERVICE AND THE OREGON DEPARTMENT OF FISH AND WILDLIFE.
 - 2.2. BLOCK NETS SHALL BE PROVIDED AND INSTALLED BY THE FISHERIES BIOLOGIST. BLOCK NETS SHALL BE MAINTAINED BY THE CONTRACTOR BOTH UPSTREAM AND DOWNSTREAM OF THE DIVERSION, THROUGHOUT THE PERIOD OF CONSTRUCTION. MAINTENANCE INCLUDES PERIODIC REMOVAL OF ACCUMULATED DEBRIS, AS NECESSARY TO ENSURE FUNCTION. BLOCK NETS SHALL BE REMOVED BY THE FISHERIES BIOLOGIST AFTER THE DIVERSION IS REMOVED AND THE IN CHANNEL WORK AREA IS RE-WATERED.
 - 2.3. ALL PUMPS SHALL INCLUDE SCREENS MEETING NMFS SCREENING STANDARDS.
3. DIVERSION SYSTEM
 - 3.1. THE CONTRACTOR SHALL INSTALL A TEMPORARY SEALED SANDBAG DAM TO CAPTURE AND DIVERT STREAM FLOW UPSTREAM OF THE PROJECT SITE. THE DIVERSION STRUCTURE SHALL BE CONSTRUCTED AS SHOWN ON DETAIL 3 THIS SHEET, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.
 - 3.2. IN THE EVENT OF A SIGNIFICANT STORM, THE CONTRACTOR SHALL BE PREPARED TO TAKE NECESSARY MEASURES TO INSURE SAFE PASSAGE OF STORM WATER FLOW THROUGH THE PROJECT AREA, WITHOUT DAMAGE TO EXISTING STRUCTURES, OR INTRODUCTION OF EXCESSIVE SEDIMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY EROSION CONTROL B.M.P.'S.
4. DEWATERING OF CONSTRUCTION AREAS
 - 4.1. ANY DEWATERING ACTIVITIES WHICH MAY BE REQUIRED FOR CONSTRUCTION PURPOSES SHALL BE CONDUCTED IN A MANNER WHICH DOES NOT VIOLATE ANY WATER QUALITY STANDARDS ESTABLISHED BY THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY.
 - 4.2. DISCHARGE OF WATER FROM THE DEWATERED CONSTRUCTION SITE, EITHER BY GRAVITY OR PUMPING, SHALL BE PERFORMED IN A MANNER TO PREVENT EXCESSIVE TURBIDITY FROM ENTERING THE RECEIVING WATERWAYS AND TO PREVENT SCOUR AND EROSION OUTSIDE OF THE CONSTRUCTION SITE. PUMPED WATER SHOULD BE PRE-FILTERED WITH APPROVED FILTRATION DEVICES FOR SUBSURFACE FLOWS AND A SILT FENCE OR HAY BALES AROUND PUMPS FOR SURFACE FLOW. PUMPED WATER SHALL BE DISCHARGED INTO ISOLATED LOCAL DEPRESSIONS, FILTER BAGS, SETTLING (BAKER) TANKS, OR TEMPORARY SEDIMENT BASINS, AS NECESSARY TO MEET WATER QUALITY REQUIREMENTS. WHERE WATER TO BE DISCHARGED INTO THE RIVER WILL CREATE EXCESSIVE TURBIDITY, THE WATER SHALL BE ROUTED THROUGH A SEDIMENT INTERCEPTOR OR OTHER FACILITIES TO REMOVE SEDIMENT FROM WATER.
 - 4.3. CONTRACTOR SHALL SUPPLY ALL NECESSARY PUMPS, PIPING, FILTERS, SHORING, AND OTHER TOOLS AND MATERIALS NECESSARY FOR DEWATERING.

TABLE 1: WETLAND SEED MIX

BOTANICAL NAME	COMMON NAME	% BY WEIGHT
AGROSTIS EXERATA	SPRIKE BENTGRASS	10%
BECKMANNIA SYZACHNE	AMERICAN SILOPHGRASS	15%
DESCHAMPSIA CESPITOSA	TUFTED HAIRGRASS	15%
ELEOCHARIS PALUSTRIS	COMMON SPIDERGRASS	15%
FESTUCA RUBRA VAR RUBRA	RED FESCUE	25%
GLYCERIA ELATA	TALL MANNAGRASS	10%
JUNCUS ENSIPOLIUS	DAUGENLEAF RUSH	10%

APPLY AT A RATE OF: 12.0 LBS PER ACRE
AREA OF APPLICATION = 3.9 ACRES
APPLY FROM ELEVATION 14' - 21.5/22 FEET

TABLE 2: UPLAND-RIPARIAN SEED MIX

BOTANICAL NAME	COMMON NAME	% BY WEIGHT
BROMUS CARINATUS	CALIFORNIA BROME	15%
BROMUS VULGARIS	COLUMBIA BROME	20%
CAREX DEWEYANA	DEWEY'S SEDGE	25%
ELYMUS GLAUCUS	BLUE WILDRYE	25%
FESTUCA RUBRA VAR RUBRA	RED FESCUE	15%

APPLY AT A RATE OF: 12.0 LBS PER ACRE
AREA OF APPLICATION = 8.4 ACRES
APPLY ABOVE ELEVATION 21.5/22 FEET

SEEDING NOTES

1. SEED AND MULCH ALL DISTURBED SURFACES, EXCEPT THE FOLLOWING:
 - 1.1. ESM AND BOULDER SURFACES.
 - 1.2. BELOW ELEVATION 17' IN POND
 - 1.3. BED OF THE MEANDER CHANNEL.

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PORTLAND, OR 97205
PH: (503) 227-5979 // FAX: (888) 819-6847
WWW.WATWAYS.COM

8/8/17 DATE
REGISTERED PROFESSIONAL ENGINEER 77870PE
OREGON JANUARY 3, 2011
JAKE DYLAN HOFELD
EXPIRES: 6/30/2019
JAKE D. HOFELD

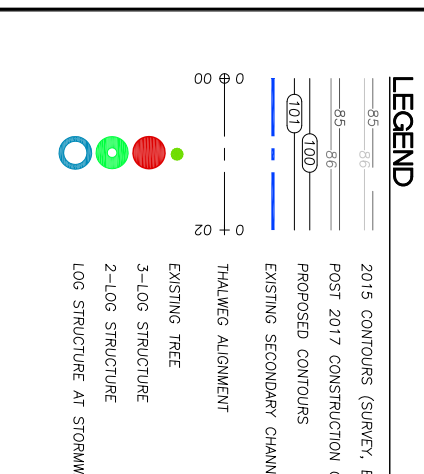
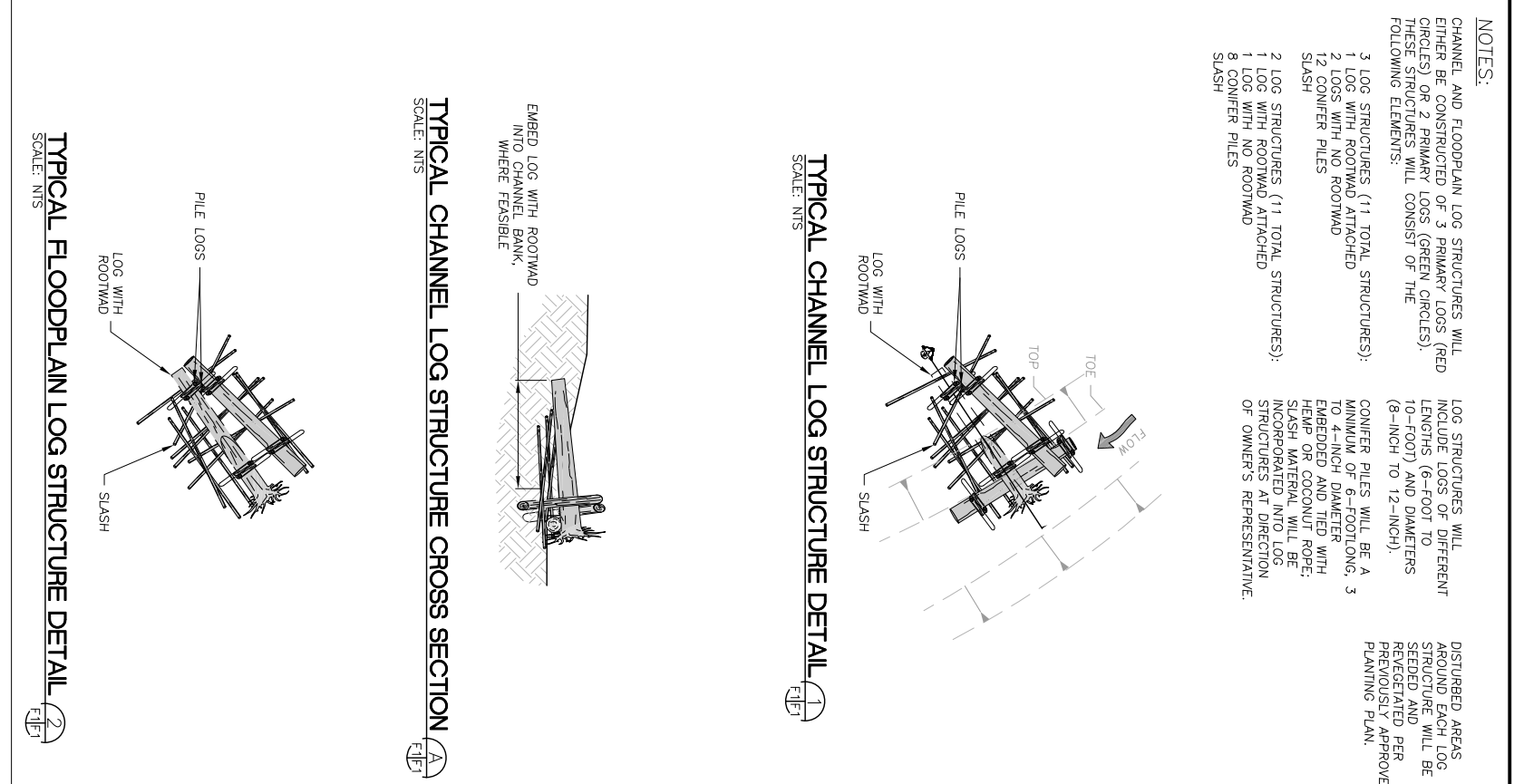
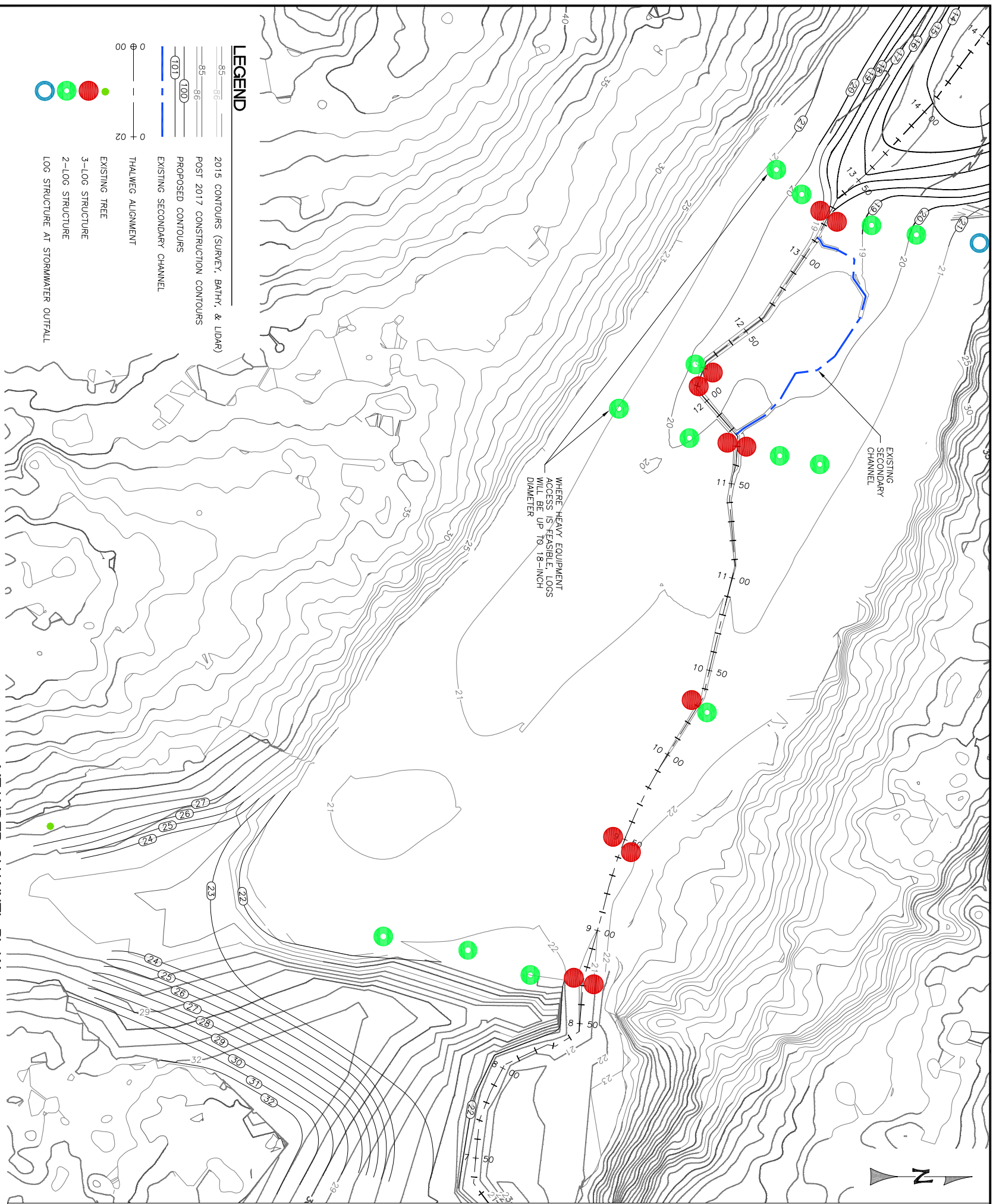
PREPARED AT THE REQUEST OF:
RINEARSON NATURAL AREA, LLC CARE OF FALLING SPRINGS, LLC

DIVERSION, ESC NOTES AND DETAILS

RINEARSON NATURAL AREA RESTORATION PROJECT 100% DESIGN SUBMITTAL

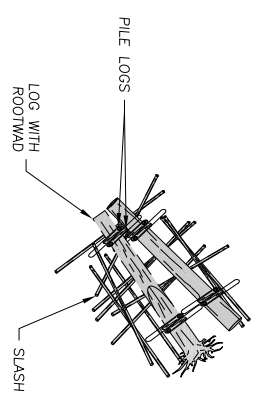
DESIGNED BY: J.H.
DRAWN BY: A.L./J.H.
CHECKED BY: M.M.
DATE: 08/08/17
JOB NO.: 11-042
BAR IS ONE INCH ON ORIGINAL DRAWING ADJUST SCALES FOR REDUCED PLOTS
0 1"=1"
C18 OF 18

Appendix C2: Meander Re-Design (Construction Documents)

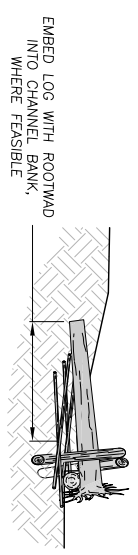


MEANDER CHANNEL PLAN
SCALE: 1" = 60'

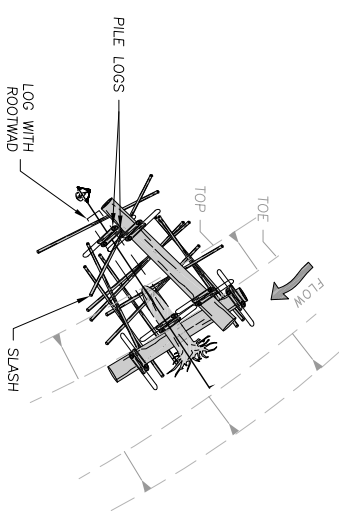
TYPICAL FLOODPLAIN LOG STRUCTURE DETAIL
SCALE: NTS



TYPICAL CHANNEL LOG STRUCTURE CROSS SECTION
SCALE: NTS



TYPICAL CHANNEL LOG STRUCTURE DETAIL
SCALE: NTS



NOTES:
CHANNEL AND FLOODPLAIN LOG STRUCTURES WILL EITHER BE CONSTRUCTED OF 3 PRIMARY LOGS (RED CIRCLES) OR 2 PRIMARY LOGS (GREEN CIRCLES). THESE STRUCTURES WILL CONSIST OF THE FOLLOWING ELEMENTS:
1 LOG STRUCTURES (11 TOTAL STRUCTURES):
1 LOG WITH ROOTWAD ATTACHED
2 LOGS WITH NO ROOTWAD
12 CONFIR PILES
SLASH
2 LOG STRUCTURES (11 TOTAL STRUCTURES):
1 LOG WITH ROOTWAD ATTACHED
1 LOG WITH NO ROOTWAD
8 CONFIR PILES
SLASH

LOG STRUCTURES WILL INCLUDE LOGS OF DIFFERENT LENGTHS (6-FOOT TO 10-FOOT) AND DIAMETERS (8-INCH TO 12-INCH). CONFIR PILES WILL BE A MINIMUM OF 6-FOOT LONG, 3 TO 4-INCH DIAMETER EMBEDDED AND TIED WITH HEMU OR LOGCUNT ROPE. HEMU OR LOGCUNT ROPE SHALL BE TIED INTO LOG STRUCTURES AT DIRECTION OF OWNER'S REPRESENTATIVE.

DISTURBED AREAS AROUND EACH LOG STRUCTURE WILL BE RESEED AND REVEGETATED PER REVEGETATION PLAN.

MEANDER CHANNEL PROFILE
SCALE: 1" = 60'

Appendix D: Exceedance Tables

Willamette River Backwater Influence on Rinearson Project Area

Frequency of Inundation at Base of Meldrum Bar Channel

Exceedance Probability	Elevation in NAVD88 - feet											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
100%	7.5	7.3	8.0	9.7	10.2	8.9	6.8	5.5	4.9	5.6	5.7	6.6
90%	10.3	9.6	9.7	11.6	11.8	11.3	8.3	7.0	6.5	7.0	8.6	8.5
80%	11.4	10.3	10.5	12.1	12.9	12.3	9.0	7.6	6.8	7.5	9.6	9.2
70%	12.3	10.8	11.1	12.6	13.6	13.8	9.6	8.0	7.1	7.8	10.3	9.9
60%	13.2	11.3	11.9	13.4	14.2	14.9	10.3	8.4	7.5	8.2	10.9	11.0
50%	14.6	11.7	12.9	14.7	14.7	15.6	11.0	8.7	7.8	8.5	11.4	12.7
40%	16.4	12.2	14.1	16.2	15.2	16.7	11.7	9.1	8.1	8.9	12.0	15.6
30%	17.8	13.0	15.6	17.4	16.1	17.6	12.8	9.5	8.6	9.3	12.7	18.0
20%	20.2	14.0	18.3	19.3	18.3	20.0	13.9	10.0	9.1	9.8	13.6	20.2
10%	24.4	15.8	20.8	21.0	20.8	21.7	15.5	10.7	9.6	10.6	15.6	21.8

Frequency of Inundation in Meldrum Bar Channel and Alcove Excavation Area

Exceedance Probability	Elevation in NAVD88 - feet											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
100%	7.5	7.3	8.0	9.7	10.2	8.9	6.8	5.5	4.9	5.6	5.7	6.6
90%	10.3	9.6	9.7	11.6	11.8	11.3	8.3	7.0	6.5	7.0	8.6	8.5
80%	11.4	10.3	10.5	12.1	12.9	12.3	9.0	7.6	6.8	7.5	9.6	9.2
70%	12.3	10.8	11.1	12.6	13.6	13.8	9.6	8.0	7.1	7.8	10.3	9.9
60%	13.2	11.3	11.9	13.4	14.2	14.9	10.3	8.4	7.5	8.2	10.9	11.0
50%	14.6	11.7	12.9	14.7	14.7	15.6	11.0	8.7	7.8	8.5	11.4	12.7
40%	16.4	12.2	14.1	16.2	15.2	16.7	11.7	9.1	8.1	8.9	12.0	15.6
30%	17.8	13.0	15.6	17.4	16.1	17.6	12.8	9.5	8.6	9.3	12.7	18.0
20%	20.2	14.0	18.3	19.3	18.3	20.0	13.9	10.0	9.1	9.8	13.6	20.2
10%	24.4	15.8	20.8	21.0	20.8	21.7	15.5	10.7	9.6	10.6	15.6	21.8

Frequency of Inundation over Historic Channel Sand Bar

Exceedance Probability	Elevation in NAVD88 - feet											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
100%	7.5	7.3	8.0	9.7	10.2	8.9	6.8	5.5	4.9	5.6	5.7	6.6
90%	10.3	9.6	9.7	11.6	11.8	11.3	8.3	7.0	6.5	7.0	8.6	8.5
80%	11.4	10.3	10.5	12.1	12.9	12.3	9.0	7.6	6.8	7.5	9.6	9.2
70%	12.3	10.8	11.1	12.6	13.6	13.8	9.6	8.0	7.1	7.8	10.3	9.9
60%	13.2	11.3	11.9	13.4	14.2	14.9	10.3	8.4	7.5	8.2	10.9	11.0
50%	14.6	11.7	12.9	14.7	14.7	15.6	11.0	8.7	7.8	8.5	11.4	12.7
40%	16.4	12.2	14.1	16.2	15.2	16.7	11.7	9.1	8.1	8.9	12.0	15.6
30%	17.8	13.0	15.6	17.4	16.1	17.6	12.8	9.5	8.6	9.3	12.7	18.0
20%	20.2	14.0	18.3	19.3	18.3	20.0	13.9	10.0	9.1	9.8	13.6	20.2
10%	24.4	15.8	20.8	21.0	20.8	21.7	15.5	10.7	9.6	10.6	15.6	21.8

Frequency of Inundation at Crest of Roughened Channel/Pond

Exceedance Probability	Elevation in NAVD88 - feet											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
100%	7.5	7.3	8.0	9.7	10.2	8.9	6.8	5.5	4.9	5.6	5.7	6.6
90%	10.3	9.6	9.7	11.6	11.8	11.3	8.3	7.0	6.5	7.0	8.6	8.5
80%	11.4	10.3	10.5	12.1	12.9	12.3	9.0	7.6	6.8	7.5	9.6	9.2
70%	12.3	10.8	11.1	12.6	13.6	13.8	9.6	8.0	7.1	7.8	10.3	9.9
60%	13.2	11.3	11.9	13.4	14.2	14.9	10.3	8.4	7.5	8.2	10.9	11.0
50%	14.6	11.7	12.9	14.7	14.7	15.6	11.0	8.7	7.8	8.5	11.4	12.7
40%	16.4	12.2	14.1	16.2	15.2	16.7	11.7	9.1	8.1	8.9	12.0	15.6
30%	17.8	13.0	15.6	17.4	16.1	17.6	12.8	9.5	8.6	9.3	12.7	18.0
20%	20.2	14.0	18.3	19.3	18.3	20.0	13.9	10.0	9.1	9.8	13.6	20.2
10%	24.4	15.8	20.8	21.0	20.8	21.7	15.5	10.7	9.6	10.6	15.6	21.8

Appendix E: PSET Determination Memo

CENWP-EC-HR (Sediment Quality)

6 October 2015

Memorandum for: Portland District, Regulatory Branch, (CENWP-OD-G, Yballe)**Subject:** Portland Sediment Evaluation Team (PSET) Level 2 supplemental suitability determination for proposed Rinearson Creek restoration project by the City of Gladstone (City) (Regulatory File No. NWP-2013-340).**Introduction:** This supplemental suitability determination memorandum (Supplemental SDM) documents the consensus of the reviewing agencies regarding the suitability of sediments in the Rinearson Creek restoration project area for unconfined, aquatic placement and aquatic exposure. Sediment chemistry data from the project were generated using guidance found in the 2009 *Sediment Evaluation Framework for the Pacific Northwest* (SEF). Bulk sediment concentrations were compared to the 2015 freshwater benthic toxicity screening levels (FW SLs).

The PSET agencies include the U.S. Army Corps of Engineers (Corps), Environmental Protection Agency – Region 10 (EPA), National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife (USFWS), Washington Department of Ecology (Ecology), and Oregon Department of Environmental Quality (ODEQ). The reviewers for this project included:

- James McMillan (Corps, Lead) Bridgette Lohrman (EPA, Co-Lead)
- James Holm (Corps) Pete Anderson (ODEQ) Laura Inouye (Ecology)
- Tom Hausmann (NMFS) Jeremy Buck (USFWS)

Review Timeline:

November 20, 2014 The PSET issued a revised SDM (PSET 2014) for the Rinearson Creek project stating the dredge prism materials (0 to -2.5') from DMMU 1 were not suitable for unconfined, aquatic placement due to a DDE exceedance of 10 ug/kg. The dredge prism materials (0 to -2.0') from DMMU 2 were suitable for unconfined, aquatic placement and the new surface materials (NSM) in each DMMU were suitable for unconfined, aquatic exposure. The PSET assigned a management area rank of “moderate” to the site. The need to re-characterize project sediments, in the event of future aquatic enhancements that involve site grading activities, would be within five years of the 2014 sampling date (i.e., by September 2019*).

* If site conditions or the proposed project change, or if new information related contaminants of concerns are discovered, additional project coordination with PSET may be required to determine the validity of this SDM.

April 10, 2015 The applicant requested evaluation of a deeper cut in DMMU1. The PSET determined the NSM in DMMU 1 below -2.5 ft., including the in situ sediments below -4.1 ft., have decreasing concentrations of contamination with depth and are likely to encounter native sediments. The PSET determined the NSM interval and underlying sediments in DMMU 1 are suitable for unconfined, aquatic exposure or unconfined, aquatic placement if excavated (PSET 2015).

September 14, 2015 Maul Foster & Alongi (MFA) requested the PSET review the 2014 sediment data using the 2015 FW SLs. MFA submitted a revised table of the project's analytical results with the additional 2015 parameters compared to the 2015 SLs.

Federal Regulatory Authorities:

- Section 10, Rivers and Harbors Act
- Section 404, Clean Water Act (CWA)
- Section 401, CWA
- Section 7, Endangered Species Act
- Section 305 of the Magnuson-Stevens Act
- Section 103, Marine Protection, Research and Sanctuaries Act
- Comprehensive Environmental Response, Compensation, and Liability Act

Project Description: A summary of the project details and evaluation of the SAP and SCRs appears in the PSET's November 20, 2014 revised SDM. Table 1 provides a summary of the 31-acre restoration project details for the City's Rinearson Creek restoration project. The restoration project is located in lower Rinearson Creek near its confluence with the Willamette River at Meldrum Bar, in Gladstone, Clackamas County, Oregon.

Site restoration activities include removal of an earthen dam, filling auxiliary channels, excavate the historic channel, raise the downstream stream bed, site grading, manual invasive species control, large woody debris installation, and native vegetation replanting. The project is planned to restore fish passage and create seasonal and perennial emergent wetlands with open water.

Table 1. Rinearson Creek Project Details

Project address	Meldrum Bar Park and Robinwood Riviere neighborhood, Gladstone, Clackamas Co., Oregon
Waterbody/river mile (RM)	Rinearson Creek @ confluence w/ Willamette River (RM 24)
Excavation areas	DMMU 1 (downstream) DMMU 2 (upstream)
Max. proposed excavation depths (stream)	DMMU 1: ~-4.1' DMMU 2: ~-2'
Excavation method	Land based backhoes or spider hoes
Proposed disposal locations	Onsite (in-stream, wetland, upland) Meldrum Bar Park (upland)
Proposed excavation date(s)	2016 or 2017 in-water work window
No. of dredged material mgmt. units (DMMUs)	2

Results: A summary of the 2014 chemical testing results for the Rinearson Creek project is shown in Table 2, which only includes the results of additional 2015 analytes and any parameters that exceed the 2015 FW SL, as presented in MFA's revised table.

None of the analytes added in 2015 were detected at or above their respective 2015 SL. Of the analytes tested for in the 2014, only nickel (Ni) was detected above the 2015 FW SL (26 mg/kg). Nickel concentrations were detected above the 2015 FW SL in all samples, including the duplicate samples and NSM samples.

Table 2. Comparison of the Rinearson Creek 2014 Sediment Chemistry to the Regional Sediment Evaluation Team's 2015 Freshwater Screening Levels*

Analyte	2015 FW SL1	DMMU 1	DMMU 1 DUP	NSM 1	DMMU 2	DMMU 2 DUP	NSM 2
Nickel (mg/kg)	26	28.2	30.0	26.7	26.7	28.1	28.2
Selenium (mg/kg)	11	0.9 U	0.9 U	0.8 U	1.2	0.8 U	1.0
beta-Hexachlorocyclohexane (ug/kg)	7.2	2.4 U	1.5 U	0.49 U	2.2 U	1.2 U	2.1 U
Endrin Ketone (ug/kg)	8.5	1 U	0.98 U	0.98 U	0.96 U	0.96 U	0.95 U
Carbazole (ug/kg)	900	19 U	20 U	19 U	19 U	19 U	10 J
Total PAH (ug/kg)	17,000	214	199	172	328	319	220
* - Data qualifiers: SL = 2015 FW screening level; U = analyte not detected at or above method reporting limit (MRL); J = estimated result at method detection limit (MDL); BOLD = exceed 2015 FW SL							

Discussion: The only analyte that had detections exceeding the 2015 FW SL was nickel (Ni). Across the six samples, the average Ni concentration is 27.98 mg/kg.

The application of “soil” background levels are not recommended by the PSET when sediment background data is available, because soils are not comparable to aquatic sediments that are subjected to riverine processes and influence. The 95% Upper Prediction Limit (26.1 mg/kg) for Ni background values in the 2012 Portland Harbor RI/FS, Willamette River bedded surface sediment (RM 15.3-28.4) will be used in this case, rather than local soil concentrations.

The PSET agencies determined that this exceedance would not trigger bioassays for the following reasons:

1. This area is known to have elevated natural nickel issues.
2. The 2014 laboratory results of the 10 other SEF metal analytes are each below the 2015 FW SLs and their concentrations are similar across the DMMUs laterally and vertically, indicating that metals are not likely a cause for concern for contamination within this watershed (there is no point source in the vicinity).
3. No mining or other sources of Ni are known in the Rinearson Creek watershed.
4. The average value was within 10% of the background value, which is within typically accepted analytical variability.

Any one of these reasons alone would not be sufficient information to not trigger bioassays, but combined with the other rationales, the PSET agencies made a best professional judgment call to not trigger bioassays in this case.

Suitability Determination: The dredge prism materials from DMMU 1 and DMMU 2 are suitable for unconfined, aquatic placement. The NSM from DMMU 1 and DMMU 2 to be exposed are suitable for aquatic exposure.

Contact: This memorandum was prepared by James Holm (PSET member), and reviewed by the participating PSET agencies, identified above. Questions regarding this memorandum should be directed to James Holm at (503) 808-4963 or e-mail to: james.a.holm@usace.army.mil.

References:

PSET. 2014. *Rinearson Creek Restoration (NWP-2013-340) Site Suitability Determination Memorandum (SDM)*. Prepared by the PSET. 20 November 2014. 5 pp + tables and figures.

PSET. 2015. *Rinearson Pond Sediment Management (NWP-2013-340)*. Email from James Holm (USACE). 10 April 2015.

U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, Washington Department of Ecology, Washington Department of Natural Resources, Oregon Department of Environmental Quality, Idaho Department of Environmental Quality, National Marine Fisheries Service, and U.S. Fish and Wildlife Service. 2009. *Sediment Evaluation Framework for the Pacific Northwest*. Published May 2009, by the U.S. Army Corps of Engineers, Northwestern Division, 128 pp + Appendices

Appendix F: Invasive Species List

Appendix F: Invasive Species List

FINAL HDP - December 3, 2018

This list is a compilation of the City of Portland list (Rank A, B, and C) and the ODA list of invasive species. ODA species specific to east of the Cascades are not included. Species which occur within the RNA project site are indicated in Column 5

Scientific Name	Common Name	City of Portland Rank	ODA Rank	Observed Onsite	"Invasive" Species (controlled in site management)	Nonnative, Unmanaged (not included in native or invasive cover estimate; will be considered as <i>nonnative</i> in cover estimates)
<i>Abutilon theophrasti</i>	Velvetleaf	B	B	N	Y	N
<i>Acer platanoides</i>	Norway maple	B	-	N	Y	N
<i>Acroptilon repens</i>	Russian knapweed	A*	B	N	Y	N
<i>Ailanthus altissima</i>	Tree-of-heaven	B	-	N	Y	N
<i>Alliaria petiolata</i>	garlic mustard	B	B/T	N	Y	N
<i>Amorpha fruticosa</i>	indigo bush	B	B	N	Y	N
<i>Arctium minus</i>	Common burdock	C	-	Y	Y	N
<i>Arrhenatherum elatius</i>	Tall oatgrass	C	-	N	Y	N
<i>Betula pendula</i>	cutleaf birch	C	-	Y	Y	N
<i>Brachypodium sylvaticum</i>	false brome	A*	B/T	Y	Y	N
<i>Bromus tectorum</i>	Cheatgrass	C	-	N	Y	N
<i>Buddleja (Buddleia) davidii</i>	butterfly bush	B	B	Y	Y	N
<i>Callitriche stagnalis</i>	Pond water starwort	C	-	N	N	Y
<i>Carduus pycnocephalus and C. tenuiflorus</i>	Italian thistle or slender flowered thistle	A*	B	N	Y	N
<i>Carex pendula</i>	Pendant sedge	A	-	N	Y	N
<i>Centaurea diffusa</i>	Diffuse knapweed	B	B	N	Y	N
<i>Centaurea pratensis (C. debeauxii ssp. thuillieri)</i>	Meadow knapweed	C	B	N	Y	N
<i>Centaurea stoebe ssp. micranthus (C. biebersteinii)</i>	Spotted knapweed	B	B	N	Y	N
<i>Chondrilla juncea</i>	Rush skeletonweed	B	B/T	N	Y	N
<i>Cirsium arvense</i>	Canada thistle	C	B	Y	Y	N
<i>Cirsium vulgare</i>	Common thistle	C	B	Y	Y	N
<i>Clematis vitalba</i>	wild clematis	C	B	N	Y	N
<i>Conium maculatum</i>	Poison-hemlock	C	-	N	Y	N
<i>Convolvulus arvensis</i>	field bindweed	C	B/T	Y	Y	N
<i>Convolvulus sepium</i>	Lady's-nightcap		-	N	Y	N
<i>Cortaderia jubata</i>	Jubata grass	A*	B	N	Y	N

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Scientific Name	Common Name	City of Portland Rank	ODA Rank	Observed Onsite	"Invasive" Species (controlled in site management)	Nonnative, Unmanaged (not included in native or invasive cover estimate; will be considered as <i>nonnative</i> in cover estimates)
<i>Crataegus monogyna</i>	English hawthorn	C	-	Y	Y	N
<i>Cyperus esculentus</i>	yellow nutsedge	-	B	Y	Y	N
<i>Cytisus scoparius</i>	Scotch broom	C	B	N	Y	N
<i>Daphne laureola</i>	Spurge laurel	B	B	N	Y	N
<i>Daucus carota</i>	wild carrot	C	-	Y	N	Y
<i>Dipsacus fullonum</i>	teasel	C	B	Y	Y	N
<i>Echium plantagineum</i>	Paterson's curse	A*	A/T	N	Y	N
<i>Egeria densa</i>	S. American waterweed	B	B	N	Y	N
<i>Fallopia bohemica</i>	Bohemian knotweed	B	-	N	Y	N
<i>Foeniculum vulgare</i>	fennel	C	-	N	Y	N
<i>Geranium lucidum</i>	Shining geranium	C	B	N	Y	N
<i>Geranium robertianum</i>	herb-Robert	C	B	Y	Y	N
<i>Geum urbanum</i>	European avens	C	-	N	Y	N
<i>Hedera helix</i>	English ivy	C	B	Y	Y	N
<i>Hedera hibernica</i>	Irish ivy	C	-	N	Y	N
<i>Heracleum mantegazzianum</i>	giant hogweed	A*	A/T	N	Y	N
<i>Hieracium aurantiacum</i>	Orange hawkweed	A*	A/T	N	Y	N
<i>Hieracium laevigatum</i>	Smooth hawkweed	B	-	N	Y	N
<i>Hieracium pilosella</i>	Mouse-ear hawkweed	B	A	N	Y	N
<i>Hieracium pratense</i> (<i>H. cespitosum</i>)	(formerly listed as Yellow hawkweed)	A*	A/T	N	Y	N
<i>Hieracium vulgatum</i> (<i>H. lachanelii</i>)	Common hawkweed	B	-	N	Y	N
<i>Hypericum perforatum</i>	St. John's wort	C	B	Y	Y	N
<i>Hypochaeris radicata</i>	hairy cat's ear	C	-	Y	N	Y
<i>Ilex aquifolium</i>	English holly	C	-	Y	Y	N
<i>Impatiens capensis</i>	spotted jewelweed	C	-	Y	N	Y
<i>Impatiens glandulifera</i>	Policemen's helmet	A*	B	N	Y	N

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<i>Iris pseudacorus</i>	yellow flag iris	B	B	Y	Y	N
<i>Juncus effusus</i> v. <i>effusus</i>	soft rush	B	-	Y	N	Y
<i>Lactuca serriola</i>	prickly lettuce	C	-	Y	N	Y
<i>Lamiastrum galeobdolon</i>	Yellow archangel	A	B	N	Y	N
<i>Lapsana communis</i>	nipplewort	C	-	Y	N	Y
<i>Leucanthemum vulgare</i>	oxeye daisy	C	-	Y	N	Y
<i>Ligustrum vulgare</i>	Privet	C	-	N	Y	N
<i>Linaria dalmatica</i> ssp. <i>dalmatica</i>	Dalmation toadflax	B	B/T	N	Y	N
<i>Lotus corniculatus</i>	birds foot trefoil	C	-	Y	N	Y
<i>Ludwigia hexapetala</i> (<i>Jussiaea uruguayensis</i>)	Water primrose	A	B	N	Y	N
<i>Lunaria annua</i>	Money plant	B	-	N	Y	N
<i>Lythrum portula</i>	spatulaleaf purslane	B	-	Y	N	Y
<i>Lythrum salicaria</i>	purple loosestrife	B	B*	Y	Y	N
<i>Melilotus alba</i>	sweetclover	C	-	N	N	Y
<i>Melissa officinalis</i>	Lemon balm	C	-	N	N	Y
<i>Mentha pulegium</i>	pennyroyal	C	-	Y	N	Y
<i>Myriophyllum aquaticum</i>	Parrots feather	B	B	N	N	Y
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	C	B	N	N	Y
<i>Nymphaea odorata</i>	Fragrant water lily	C	-	N	N	Y
<i>Onopordum acanthium</i>	Scotch thistle	A*	B	N	Y	N
<i>Parentucellia viscosa</i>	Yellow glandweed	C	-	N	N	Y
<i>Phalaris aquatica</i>	Harding grass	A	-	N	Y	N
<i>Phalaris arundinacea</i>	reed canarygrass	C	-	Y	Y	N
<i>Phragmites australis</i> (introduced var. only)	Common reed	A*	A	N	Y	N
<i>Phytolacca americana</i>	Pokeweed	A	-	N	Y	N
<i>Polygonum convolvulus</i>	Climbing bindweed	B	-	N	Y	N

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<i>Polygonum cuspidatum</i> (<i>Fallopia cuspidata</i>)	Japanese knotweed	B	B*	Y	Y	N
<i>Polygonum polystachyum</i> (<i>Persicaria wallachii</i>)	Himalayan knotweed	B	B	N	Y	N
<i>Polygonum sachalinense</i> (<i>Fallopia sachalinensis</i>)	Giant knotweed	B	B	N	Y	N
<i>Populus alba</i>	White poplar	B	-	N	Y	N
<i>Potamogeton crispus</i>	curly leaf pondweed	C	-	N	N	Y
<i>Potentilla recta</i>	Sulphur cinquefoil	C	-	N	Y	N
<i>Prunus avium</i>	sweet cherry	C	-	Y	Y	N
<i>Prunus laurocerasus</i>	English laurel	C	-	Y	Y	N
<i>Prunus lusitanica</i>	Portugal laurel	C	-	Y	Y	N
<i>Pueraria lobata</i>	Kudzu	A*	A/T	N	Y	N
<i>Ranunculus ficaria</i> (formerly listed as <i>Chelidonium majus</i>)	Lesser celandine	B	B	N	Y	N
<i>Ranunculus repens</i>	creeping buttercup	C	-	Y	N	Y
<i>Robinia pseudoacacia</i>	black locust	C	-	Y	Y	N
<i>Rosa eglanteria</i>	Sweetbriar rose	C	-	N	Y	N
<i>Rosa multiflora</i>	Multiflora rose	C	-	N	N	Y
<i>Rubus armeniacus</i>	Himalayan blackberry	C	B	Y	Y	N
<i>Rubus laciniatus</i>	cutleaf blackberry	C	-	Y	Y	N
<i>Senecio jacobaea</i>	tansy ragwort	C	B/T	Y	Y	N
<i>Silene coronaria</i>	Rose campion	C	-	N	Y	N
<i>Silybum marianum</i>	Blessed milk thistle	A*	B	N	Y	N
<i>Sisymbrium officinale</i>	Hedge mustard	C	-	N	Y	N
<i>Solanum dulcamara</i>	bittersweet nightshade	C	-	N	Y	N
<i>Solanum nigrum</i>	Garden nightshade	B	-	N	Y	N
<i>Sonchus arvensis</i> , <i>S. asper</i> , <i>S. oleraceus</i>	perennial sowthistle	C	-	Y	N	Y

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<i>Taeniatherum caput-medusae</i>	Medusahead	C	B	N	Y	N
<i>Tamarix ramosissima</i>	Salt cedar	A*	B/T	N	Y	N
<i>Tanacetum vulgare</i>	common tansy	C	-	Y	N	Y
<i>Trifolium arvense</i>	Hare's foot clover	C	-	N	N	Y
<i>Trifolium pratense</i>	red clover	C	-	Y	N	Y
<i>Trifolium repens</i>	white clover	C	-	Y	N	Y
<i>Trifolium subterraneum</i>	Subterranean clover	C	-	N	N	Y
<i>Ulex europaeus</i>	Gorse	A*	B/T	N	Y	N
<i>Utricularia inflata</i>	Swollen bladderwort	A	-	N	Y	N
<i>Verbascum blattaria</i>	moth mullein	C	-	N	N	Y
<i>Verbascum thapsus</i>	common mullein	C	-	Y	N	Y
<i>Verbena bonariensis</i>	tall verbena	A	-	N	Y	N
<i>Vicia cracca</i>	tufted vetch	C	-	N	N	Y
<i>Vicia villosa</i>	Hairy vetch	C	-	N	N	Y
<i>Vinca major</i>	periwinkle (large leaf)	C	-	N	N	Y
<i>Vinca minor</i>	periwinkle (small leaf)	C	-	N	N	Y

***Required eradication/EDRR species**

Appendix G-1: Credit Release Schedule

**APPENDIX G-1
CREDIT RELEASE SCHEDULE**

Rinearson Natural Area	
Release Schedule for Restored and Enhanced Habitat	Credits / DSAY's Released
1	15% release upon recording of deed restriction, establishment of planting security, establishment of project construction completion security in an amount equal to 50 percent of the total construction cost based on the highest construction bid, establishment of contingency fund/performance security, adaptive management set-aside, and lamprey monitoring years 15 and 20 funding security.
2	35% release upon completion of habitat construction and Trustee Council review of as-built and as-planted drawings and additional requested information to document compliance with construction, planting plans and other aspects of project completion.
3	30% release upon achievement of year 3 performance standards.
4	10% release upon achievement of year 5 performance standards.
5	10% release upon achievement of year 10 performance standards, recording a conservation easement (if not already in place), approval of a site-specific management plan, advanced payment for years 15 and 20 lamprey monitoring events and the fully funded stewardship fund.
Total Credits	
345	

- Notes:
- 1) Although credits may be sold to potentially responsible parties, they will only be recognized for purposes of settlement following negotiation of individual settlement agreements, public review and comment, and court approval or when credits are purchased by the Trustee Council or its members.
 - 2) With respect to Credits/DSAY's Released, the number of Credits / DSAYs has been based on preliminary calculations. The final number of DSAYs shall be determined by the Trustee Council based upon attainment of the Performance Standards.

3) The project implementer will provide a copy of the DSAY credit ledger and a copy of the executed Bill-of-sale to the Trustee Council upon closing of each sales transaction. The Restoration Implementer shall also provide the Trustee Council with a copy of the ledger, as of December 31 of the previous year, by February 15 of each year until all credits have been awarded and sold, or until the Restoration Implementer has informed the Trustee Council or its designee(s) that it has terminated credit sales. The following information will be recorded in the ledger for each transaction:

- Date of transaction
- Number of credits transacted
- For credits released for sale, reference the performance standard to which the released credits correspond
- For credit sales, include the name, address, telephone number, and contact for purchaser; and a reference number, if applicable.
- For credits withdrawn from the ledger for reasons other than credit purchase, include the specific reason for the withdrawal
- Number of credits available from the Project at the time of transaction
- Project's credit balance after this transaction

4) Upon prior approval of the project implementer, this credit release schedule will be made public

Appendix G-2: Credit Sales Agreement

**Appendix G-2:
Credit Sales Agreement**

**AGREEMENT FOR PURCHASE AND SALE OF
DISCOUNTED SERVICE ACRE-YEAR CREDITS**

This Agreement for Purchase and Sale of Discounted Service Acre-Year Credits ("Agreement") is entered into by and between RINEARSON NATURAL AREA, LLC, an Oregon limited liability company ("RNA"), and _____ ("PRP"). RNA and PRP are sometimes individually referred to as a "Party" and collectively referred to as the "Parties."

Recitals

A. RNA controls a site located in the City of Gladstone and Clackamas County, Oregon, comprising approximately 33.156 acres along lower Rinearson Creek within the floodplain of the Willamette River and including a dammed pond, segments of flowing Rinearson Creek, and riparian and upland forests. Rinearson Creek is a perennial tributary that enters the lower Willamette River at River Mile 24, just downstream from the confluence with the Clackamas River within the broader Portland Harbor restoration focus area (the "Rinearson Site"). A map of the Rinearson Site is attached hereto as Exhibit A and incorporated herein by this reference.

B. RNA has constructed, or intends to construct, a restoration project at the Rinearson Site, which will, among other things, restore and create intertidal channels, marsh/mudflat and riparian habitat (the "Project").

C. The Project has been developed in coordination with the Portland Harbor Natural Resource Trustee Council, which consists of the National Oceanic and Atmospheric Administration on behalf of the Department of the Commerce, the United States Fish and Wildlife Service on behalf of the Department of the Interior, the Oregon Department of Fish and Wildlife on behalf of the State of Oregon, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe ("Trustee Council").

D. The Project, if implemented in accordance with the Rinearson Natural Area Habitat Development Plan (and all appendices), will provide habitat values. These habitat values are measured and quantified through a crediting system, and the credits generated from the Project are called Discounted Service Acre-Year Credits ("DSAY Credits"). The DSAY Credits may be sold from the Project to third parties and proposed by the Trustee Council as part of a settlement, subject to approval by all appropriate public officials, public review and comment, and court approval. The DSAY Credits are to be released over time in accordance with the schedule set forth on Exhibit B attached hereto and incorporated herein by this reference. The DSAY Credits may not be transferred until they are released.

F. PRP is seeking to offset its liability for natural resource damages for injury to natural resources in Portland Harbor, which has resulted in adverse impacts to those natural resources, by purchasing DSAY Credits generated by the Project from RNA.

G. PRP desires to purchase [_____] DSAY Credits from RNA.

H. RNA desires to sell [_____] DSAY Credits to PRP on the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the foregoing recitals, and the mutual covenants contained herein, the Parties agree as follows:

Agreement

1. Effective Date. For the purposes of this Agreement, the date on which the last Party executes this Agreement (as indicated below each Party's signature) shall hereinafter be referred to as the "Effective Date."

2. Allocation of DSAY Credits. Pursuant to the terms and conditions of this Agreement, RNA agrees to sell to PRP, and PRP agrees to purchase from RNA, [_____] DSAY Credits (the "Purchased Credits").

3. Purchase Price. The purchase price ("Purchase Price") for the Purchased Credits is [_____] , which was calculated by multiplying [_____] (the per credit purchase price) by [_____] , the number of Purchased Credits.

4. Payment of Purchase Price. The Purchase Price shall be paid by PRP to RNA as follows:

(a) *Deposit*. Within three (3) Business Days (as hereinafter defined) after the Effective Date, PRP shall deposit with RNA the amount of [_____] , which constitutes ten percent (10%) of the Purchase Price (the "Deposit"). The Deposit may be used by RNA upon receipt and shall be nonrefundable except as otherwise expressly set forth in this Agreement. The Deposit shall be credited to the Purchase Price upon Closing.

(b) *Balance of Purchase Price*. At Closing, PRP shall deliver to RNA the balance of the Purchase Price, in immediately available funds.

5. Closing. For purposes of this Agreement, "Closing" shall be defined as the date on which the Bill of Sale (as hereinafter defined) is delivered to PRP. Closing shall occur on or before [_____] . If requested by the Trustee Council, RNA shall be a party to any natural resources damage settlement accepting the credits purchased by PRP. The Trustee Council and the U.S. Department of Justice shall coordinate with RNA on the terms of any natural resource damage settlement directly bearing on the rights and responsibilities of RNA.

6. Closing Documents and Costs.

(a) *Deliveries by RNA*. At Closing, RNA shall deliver to PRP a Bill of Sale ("Bill of Sale") executed by RNA, evidencing the sale of the Purchased Credits to PRP, in the form attached hereto as Exhibit C and incorporated herein by this reference. RNA shall submit a completed Bill of Sale to the Trustee Council. RNA also shall complete the Payment Receipt

form attached hereto as Exhibit D and submit the completed Payment Receipt to the Trustee Council.

(b) *Deliveries by PRP.* At Closing, PRP shall deliver the balance of the Purchase Price, in immediately available funds, together with such other documents as may be reasonably required by RNA in order to close on the purchase and sale of the Purchased Credits. Upon PRP's delivery of the Purchase Price to RNA, RNA shall deliver to PRP the Bill of Sale.

(c) *Costs and Expenses.* All closing fees and costs shall be divided equally between the PRP and RNA, except that each Party shall pay its own legal and professional fees and fees of other consultants hired by such Party.

7. Limitation of Obligations and Rights of PRP.

(a) *Limitation of Obligations.* PRP shall have no obligation whatsoever by reason of the purchase of the DSAY Credits to support, pay for, monitor, report on, sustain, continue in perpetuity or otherwise be obligated or liable for the success or continued expense or maintenance in perpetuity of the DSAY Credits sold, the Project or the Rinearson Site. RNA shall be fully and completely responsible for satisfying any and all conditions placed on the Rinearson Site, the Project, or the DSAY Credits by all federal and state agencies, including any requirement to monitor and make reports to the appropriate agency or agencies on the status of any DSAY Credits sold to PRP.

(b) *Limitation of Rights to Restoration Site.* Nothing in this Agreement shall result in PRP having any right, title or interest in the Rinearson Site.

(c) *Joint Use.* Nothing contained in this Agreement shall restrain RNA from selling the remaining DSAY Credits at the Project to other parties, so long as the aggregate number of DSAY Credits sold to all parties, including PRP, from the Project, does not exceed the aggregate number of DSAY Credits available at the Project.

(d) *No Representations.* PRP is purchasing the DSAY Credits "AS IS WHERE IS". RNA has made and makes no representation, warranty or guaranty that the Purchased Credits will be recognized by the Trustee Council to satisfy PRP's potential natural resource damage obligations. RNA shall reasonably cooperate with PRP's efforts to obtain the Trustee Council's acceptance of the use of the Purchased Credits by PRP to satisfy its potential natural resource damage liability in Portland Harbor.

8. Termination Rights.

(a) *RNA Termination Rights.* RNA's right to terminate this Agreement shall be limited to the following circumstances:

(i) *Release of Credits Not Obtained.* In the event that the Purchased Credits have not been released by the Closing, as extended pursuant to Section 5, RNA shall have the right to terminate this Agreement, in which event the entire Deposit shall be promptly refunded

to PRP, and the Parties shall have no further rights, duties or obligations under this Agreement from and after such termination.

(ii) **Default.** RNA shall have the right to terminate this Agreement by written notice to PRP at any time after the date on which a default by PRP has occurred under this Agreement, provided that PRP fails to cure such default within five (5) business days after it has received written notice stating the nature of the default. In the event that this Agreement is terminated pursuant to the provisions of this subsection (ii), the provisions of Section 9 below shall apply.

(b) **PRP Termination Rights.** PRP's right to terminate this Agreement shall be limited to the following circumstances:

(i) **Release of Credits Not Obtained.** In the event that the Purchased Credits have not been released by the Closing, as extended pursuant to Section 5, PRP shall have the right to terminate this Agreement, in which event the entire Deposit shall be promptly refunded to PRP, and the Parties shall have no further rights, duties or obligations under this Agreement from and after such termination.

(ii) **Default.** PRP shall have the right to terminate this Agreement by written notice to RNA at any time after the date on which a default by RNA has occurred under this Agreement, provided that RNA fails to cure such default within thirty (30) days, or a reasonable period of time agreed upon in writing by the parties, after PRP's delivery of written notice to RNA stating the nature of the default. In the event that this Agreement is terminated pursuant to the provisions of this subsection (ii), the entire Deposit and any other sums paid to RNA by PRP shall be refunded and PRP shall have the remedies set forth in Section 10 below, which are the PRP's sole and exclusive remedies.

9. **Default by PRP; Damages.** PRP RECOGNIZES THAT THE PURCHASED CREDITS WILL BE REMOVED BY RNA FROM THE MARKET DURING THE EXISTENCE OF THIS AGREEMENT, AND THAT IF THE CLOSING DOES NOT OCCUR BECAUSE OF PRP'S DEFAULT WHICH CONTINUES AFTER ANY APPLICABLE NOTICE AND CURE PERIOD, IT WOULD BE EXTREMELY DIFFICULT AND IMPRACTICAL TO ASCERTAIN THE EXTENT OF THE DETRIMENT TO RNA. THE PARTIES HAVE DETERMINED AND AGREED THAT THE ACTUAL AMOUNT OF DAMAGES THAT WOULD BE SUFFERED BY RNA AS A RESULT OF ANY SUCH DEFAULT IS DIFFICULT OR IMPRACTICABLE TO DETERMINE AS OF THE DATE OF THIS AGREEMENT AND THAT THE DEPOSIT IS A REASONABLE ESTIMATE OF THE AMOUNT OF SUCH DAMAGES. FOR THESE REASONS, THE PARTIES AGREE THAT IF THE CLOSING DOES NOT OCCUR BECAUSE OF PRP'S DEFAULT, WHICH CONTINUES AFTER ANY APPLICABLE NOTICE AND CURE PERIOD, THE DEPOSIT SHALL BE FORFEITED AS LIQUIDATED DAMAGES. UPON ANY SUCH UNCURED BREACH OR DEFAULT BY PRP HEREUNDER, THIS AGREEMENT SHALL BE TERMINATED, AND NEITHER PARTY SHALL HAVE ANY FURTHER RIGHTS OR OBLIGATIONS HEREUNDER, EACH TO THE OTHER, EXCEPT FOR THE RIGHT OF RNA TO RETAIN SUCH LIQUIDATED DAMAGES.

10. Default by RNA; PRP Remedies. In the event that Closing does not occur because of a material default by RNA under this Agreement that is not cured by RNA pursuant to Section 8 above, PRP, as its sole and exclusive remedy, shall be entitled to an immediate return of the entire Deposit and any other sums paid to RNA by PRP.

11. No Broker. Each of the Parties hereto represents to the other that it has dealt with no real estate salesperson, broker or finder in connection with this transaction, and insofar as they know, no salesperson, broker or other person is entitled to any commission, finder's fee or other compensation in connection with this transaction. If any claims for any brokers' or finders' fees for the consummation of this Agreement arise, then RNA hereby agrees to indemnify, hold harmless and defend PRP from and against such claims if they shall be based upon any statement, representation or agreement by RNA, and PRP hereby agrees to indemnify, hold harmless and defend RNA if such claims shall be based upon any statement, representation or agreement made by PRP.

12. Limitations on Assignment; Transfer. PRP may not assign, sell or otherwise transfer the DSAY Credits, in whole or in part, without in each instance notifying the Trustee Council and RNA in writing. PRP shall not use the DSAY Credits as conservation or mitigation for any other purpose, except as set forth herein.

13. Survival. The provisions of paragraphs 7, 9, 10, 12, 13, 14(a) and 14(e) shall survive Closing.

14. Miscellaneous Provisions.

(a) *Ownership of Documents.*

(i) RNA Documents. All work papers, drawings, internal memoranda of any kind, photographs, and any written or graphic material, however produced, prepared by RNA in connection with its performance of services hereunder shall be, and shall remain after termination of this Agreement, the property of RNA, and may be used by RNA for any purpose whatsoever. PRP shall be permitted to use any such documents for any lawful purpose, including, but not limited to, disclosure pursuant to the Oregon Public Records Law, disclosure in response to a subpoena, correspondence with the Trustee Council, and public education and outreach.

(ii) PRP Documents. All work papers, drawings, internal memoranda of any kind, photographs, and any written or graphic material, however produced or prepared by PRP shall be, and shall remain after termination of this Agreement, the property of PRP. RNA agrees to return to PRP upon termination of this Agreement all such documents and materials received from PRP and used by RNA in the performance of its services hereunder. RNA shall not be permitted to use any such documents or materials prepared by PRP for any purpose following termination of this Agreement.

(b) *Notices.* All notices, demands, consents, requests or other communications

required to or permitted to be given pursuant to this Agreement shall be in writing, shall be given only in accordance with the provisions of this Section, shall be addressed to the Parties in the manner set forth below, and shall be conclusively deemed to have been properly delivered: (i) upon receipt when hand delivered during normal business hours (provided that notices which are hand delivered shall not be effective unless the sending Party obtains a signature of a person at such address or subsequent confirmation by electronic mail that the notice has been received); (ii) upon receipt when sent by facsimile prior to 5:00 p.m. Pacific Standard Time of a given Business Day (otherwise such receipt is deemed as of the following Business Day) to the number set forth below (provided, however, that notices given by facsimile shall not be effective unless the sending Party's machine provides written confirmation of successful delivery thereof); (iii) upon the day of delivery if the notice has been deposited in an authorized receptacle of the United States Postal Service as first-class, registered or certified mail, postage prepaid, with a return receipt requested (provided that the sender has in its possession the return receipt to prove actual delivery); or (iv) one (1) Business Day after the notice has been deposited with either FedEx or United Parcel Service to be delivered by overnight delivery (provided that the sending Party receives a confirmation of actual delivery from the courier). The addresses of the Parties to receive notices are as follows:

To RNA: Rinearson Natural Area, LLC
c/o Falling Springs, LLC
6243 River Road, Suite 7
Richmond, Virginia 23229
Attention: Robert J. Proutt, Jr.
Telephone: (804) 823-8248
Electronic Mail: bproutt@fallingspringsllc.com

To PRP: _____

Telephone: _____
Facsimile: _____
Electronic Mail: _____

Any Party may change its address for purposes of this section by giving the other Party written notice of the new address in the manner set forth above.

(c) *Partial Invalidity.* If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each such term and provision of this Agreement shall be valid, and shall be enforced to the fullest extent permitted by law.

(d) *Waivers.* No waiver of any breach of any covenant or provision herein contained shall be deemed a waiver of any preceding or succeeding breach thereof, or of any other

covenant or provision herein contained. No extension of time for performance of any obligation or act shall be deemed an extension of time for performance of any other obligation or act except those of the waiving Party, which shall be extended by a period of time equal to the period of the delay.

(e) *Successors and Assigns.* This Agreement shall be binding upon and shall inure to the benefit of the successors and permitted assigns of the Parties hereto.

(f) *Attorneys' Fees.* In the event any of the Parties shall commence legal proceedings for the purpose of enforcing any provision or condition hereof, or by reason of any breach arising under the provisions hereof, each party shall assume its own attorneys' fees incurred in the prosecution or defense of such legal proceedings.

(g) *Entire Agreement.* This Agreement (including all Exhibits attached hereto) is the final expression of, and contains the entire agreement between, the Parties with respect to the subject matter hereof and supersedes all prior understandings with respect thereto. This Agreement may not be modified, changed, supplemented, superseded, canceled or terminated, nor may any obligations hereunder be waived, except by written instrument signed by the Party to be charged or by its agent duly authorized in writing or as otherwise expressly permitted herein. The Parties do not intend to confer any benefit hereunder on any person, firm or corporation other than the Parties hereto and lawful assignees.

(h) *Time of Essence.* The Parties hereby acknowledge and agree that time is strictly of the essence with respect to each and every term, condition, obligation and provision under this Agreement and that failure to timely perform any of the terms, conditions, obligations or provisions hereof by either Party shall constitute a material breach under this Agreement by the Party so failing to perform.

(i) *Relationship of Parties.* Nothing contained in this Agreement shall be deemed or construed by the Parties to create the relationship of principal and agent, a partnership, joint venture or any other association between the Parties, except as provided in this Agreement.

(j) *Construction.* Headings at the beginning of each paragraph and subparagraph are solely for the convenience of the Parties and are not a part of the Agreement. Whenever required by the context of this Agreement, the singular shall include the plural and the masculine shall include the feminine and vice versa. This Agreement shall not be construed as if it had been prepared by one of the Parties, but rather as if both Parties had prepared the same. Unless otherwise indicated, all references to paragraphs, sections, subparagraphs and subsections are to this Agreement. All exhibits referred to in this Agreement are attached and incorporated by this reference.

(k) *Recitals/Exhibits.* The Recitals set forth in this Agreement and the exhibits referenced herein are incorporated herein by this reference.

(l) *Choice of Law; Venue.* This Agreement shall be governed by and construed in accordance with the laws of the State of Oregon.

(m) *Counterparts.* This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which, together, shall constitute one and the same instrument.

(n) *Days of Week.* A "Business Day," as used herein, shall mean any day other than a Saturday, Sunday or federal holiday. If any date for performance herein falls on a day other than a Business Day, the time for such performance shall be extended to 5:00 p.m. on the next Business Day.

(o) *Electronic Transmittals.* The Parties agree that if this Agreement is transmitted electronically, the electronic transmittal of the original execution signatures shall be treated as original signatures and given the same legal effect as an original signature.

(p) *Representation by Counsel.* Notwithstanding any rule or maxim of construction to the contrary, any ambiguity or uncertainty shall not be construed against either Party based upon authorship of any of the provisions hereof. Each Party hereby warrants, represents and certifies to the other as follows: (i) that the contents of this Agreement have been completely and carefully read by the representing Party and counsel for the representing Party; (ii) that the representing Party has been separately represented by counsel and the representing Party is satisfied with such representation; (iii) that the representing Party's counsel has advised the representing Party of, and the representing Party fully understands, the legal consequences of this Agreement; and (iv) that no other person (whether a Party to this Agreement or not) has made any threats, promises or representations of any kind whatsoever to induce the execution hereof, other than the performance of the terms and provisions hereof.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK;
SIGNATURES APPEAR ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the dates set forth below.

RNA:

RINEARSON NATURAL AREA, LLC,
an Oregon limited liability company

By: Rinearson, LLC, a Virginia limited liability company,
Its sole member

By: Falling Springs, LLC, a Virginia limited
liability company,
Its sole member

By: _____
Name: _____
Title: _____
Date _____

PRP:

_____,
a _____

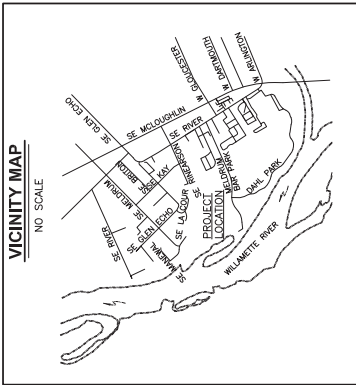
By: _____
Name: _____
Title: _____
Date: _____

LIST OF EXHIBITS

Exhibit A	Rinearson Natural Area Restoration Site
Exhibit B	Credit Table and Release Schedule
Exhibit C	Bill of Sale
Exhibit D	Project Payment Receipt Form

EXHIBIT "LIMITS OF IMPROVEMENTS"

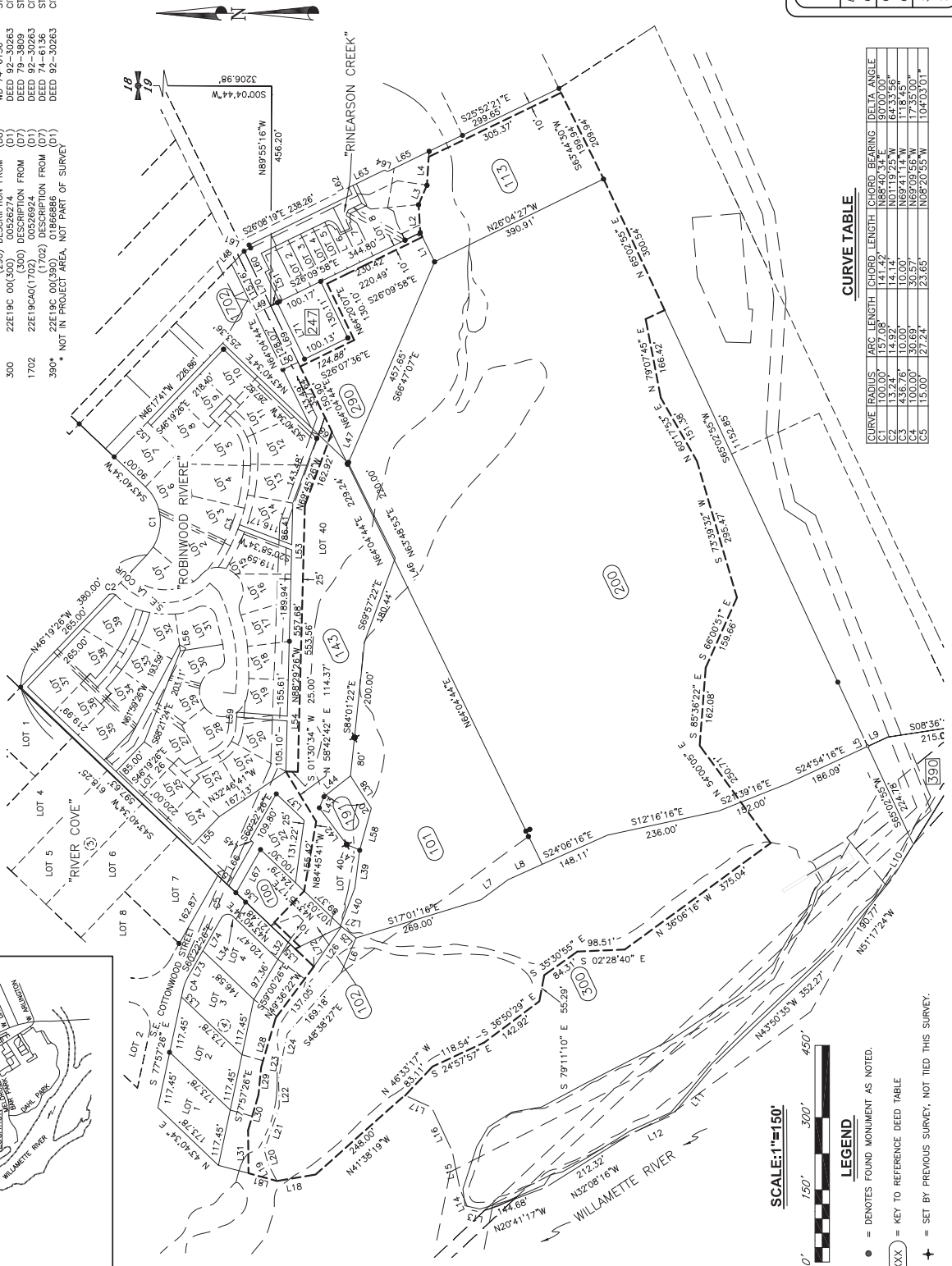
FOR
RINEARSON NATURAL RESOURCE AREA
SITUATED IN SOUTH EAST OF SECTION 19
TOWNSHIP 2 SOUTH, RANGE 2 EAST, WILLAMETTE MERIDIAN,
CITY OF GLADSTONE, CLACKAMAS COUNTY, STATE OF OREGON.
NO CORNERS SET WITH THIS MAPPING.



REFERENCE DEEDS

ALL IN CLACKAMAS COUNTY DEED RECORDS

SURVEY	TAX LOT	PARCEL#	DEED REF. #	DEED
101	22E19C00(01)	00526354	(01)	DEED 92-30263
102 & 100	22E19C00(02)	00526354	(02)	WD 72-37511
113	22E19B00(13)	05019648	(03)	CCD 2005-00728
143	22E19C00(13)	01606925	(04)	WD 76-22579
190	22E19C00(13)	01606925	(05)	EXP B&S DEED 99-088195
200	22E19C00(20)	00526256	(06)	DEED 92-30263
290	22E19C00(20)	00526256	(07)	DEED 74-6136
300	22E19C00(20)	00526256	(08)	ST OF OR DOT-HWY DIV
1702	22E19C00(1702)	00526824	(09)	STATE OF OREGON, DOT
390*	22E19C00(390)	01866866	(10)	DEED 92-30263
			(11)	DEED 92-30263
			(12)	DEED 92-30263
			(13)	DEED 92-30263
			(14)	DEED 92-30263
			(15)	DEED 92-30263
			(16)	DEED 92-30263
			(17)	DEED 92-30263
			(18)	DEED 92-30263
			(19)	DEED 92-30263
			(20)	DEED 92-30263
			(21)	DEED 92-30263
			(22)	DEED 92-30263
			(23)	DEED 92-30263
			(24)	DEED 92-30263
			(25)	DEED 92-30263
			(26)	DEED 92-30263
			(27)	DEED 92-30263
			(28)	DEED 92-30263
			(29)	DEED 92-30263
			(30)	DEED 92-30263
			(31)	DEED 92-30263
			(32)	DEED 92-30263
			(33)	DEED 92-30263
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			(99)	DEED 92-30263
			(100)	DEED 92-30263



REGISTERED PROFESSIONAL LAND SURVEYOR
JULY 27, 1988
OREGON LICENSE #2073
EXPIRES: 06/30/2016

STATEWIDE LAND SURVEYING INC.
WWW.STATEWIDELANDSURVEYING.COM
500 NW 20TH ST #101
BREHMAN, OR 97030
(503) 665-7988
(503) 665-7777

DRAWN: DATE: 8/7/2015
CHECKED: DATE: 9-29-15
SCALE: SHEET: 1 OF 1
PROJECT NO.: 2015-42

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	100.00'	157.08'	141.42'	N88°40'34" E	90°00'00"
C2	13.24'	14.92'	14.14'	N07°19'25" W	64°33'56"
C3	100.00'	30.57'	30.57'	N89°49'45" W	17°55'00"
C5	150.00'	27.24'	23.65'	N08°20'55" W	104°03'01"

SCALE: 1"=150'
0' 150' 300' 450'

LEGEND

- = DENOTES FOUND MONUMENT AS NOTED.
- XXX = KEY TO REFERENCE DEED TABLE
- + = SET BY PREVIOUS SURVEY, NOT TIED THIS SURVEY.

Exhibit B
Credit Release Schedule

Rinearson Natural Area	
Release Schedule for Restored and Enhanced Habitat	Credits / DSAY's Released
1	15% release upon recording of deed restriction, establishment of planting security, establishment of project construction completion security in an amount equal to 50 percent of the total construction cost based on the highest construction bid, establishment of contingency fund/performance security, adaptive management set-aside, and lamprey monitoring years 15 and 20 funding security.
2	35% release upon completion of habitat construction and Trustee Council review of as-built and as-planted drawings and additional requested information to document compliance with construction, planting plans and other aspects of project completion.
3	30% release upon achievement of year 3 performance standards.
4	10% release upon achievement of year 5 performance standards.
5	10% release upon achievement of year 10 performance standards, recording a conservation easement (if not already in place), approval of a site-specific management plan, advanced payment for years 15 and 20 lamprey monitoring events and the fully funded stewardship fund.
Total Credits	
345	

- Notes:
- 1) Although credits may be sold to potentially responsible parties, they will only be recognized for purposes of settlement following negotiation of individual settlement agreements, public review and comment, and court approval or when credits are purchased by the Trustee Council or its members.
 - 2) With respect to Credits/DSAY's Released, the number of Credits / DSAYs has been based on preliminary calculations. The final number of DSAYs shall be determined by the Trustee Council based upon attainment of the Performance Standards.

3) The project implementer will provide a copy of the DSAY credit ledger and a copy of the executed Bill-of-sale to the Trustee Council upon closing of each sales transaction. The Restoration Implementer shall also provide the Trustee Council with a copy of the ledger, as of December 31 of the previous year, by February 15 of each year until all credits have been awarded and sold, or until the Restoration Implementer has informed the Trustee Council or its designee(s) that it has terminated credit sales. The following information will be recorded in the ledger for each transaction:

- Date of transaction
- Number of credits transacted
- For credits released for sale, reference the performance standard to which the released credits correspond
- For credit sales, include the name, address, telephone number, and contact for purchaser; and a reference number, if applicable.
- For credits withdrawn from the ledger for reasons other than credit purchase, include the specific reason for the withdrawal
- Number of credits available from the Project at the time of transaction
- Project's credit balance after this transaction

4) Upon prior approval of the project implementer, this credit release schedule will be made public

Exhibit C

Bill of Sale No. ____

In consideration of [_____] [*Note: Insert Purchase Price*], receipt of which is hereby acknowledged, Rinearson Natural Area, LLC, an Oregon limited liability company ("RNA"), does hereby bargain, sell and transfer to _____ ("Transferee") [_____] [*Note: Insert Number of Credits*] Discounted Service Acre-Year credits (the "DSAY Credits") from the Rinearson Site.

RNA represents and warrants that it has good title to the DSAY Credits, has good right to sell the same, and they are free and clear of all claims, liens, or encumbrances.

RNA covenants and agrees with Transferee to warrant and defend the sale of the DSAY Credits against all and every person and persons whomsoever lawfully claiming or to claim the same.

RINEARSON NATURAL AREA, LLC,
an Oregon limited liability company

By: Rinearson, LLC, a Virginia limited liability company,
Its sole member

By: Falling Springs, LLC, a Virginia limited liability company,
Its sole member

By: _____
Name: _____
Title: _____
Date _____

Appendix G-3: Conservation Easement Instrument

Appendix G-3a – City Interim Deed Restriction
DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICTIONS
AND GRANT OF IRREVOCABLE RIGHT OF ENTRY

Property Address: N/A

Tax Parcel IDs: 00526354; 05019648; 05000035; 00526256; 00526265; 00526274; 00526924

Deed Reference(s): 92-30263; 2007-092290; 99-088195

County Recording No.

CITY OF GLADSTONE, an Oregon municipal corporation (hereafter, the “DECLARANT”), is the fee simple owner of certain property located in the City of Gladstone, Clackamas County, Oregon, which property is more particularly described and depicted in the Deeds referenced below (hereafter the “City Land”):

Tax Parcel ID	Vesting Deed(s)
00526354	Deed made by the State of Oregon, Parks and Recreation Department, on May 12, 1992 and recorded in the Recorder’s Office for Clackamas County, Oregon (the “Recorder’s Office”) as Instrument Number 92-30263 (the “Parks and Rec Deed”). Warranty Deed made by Duane Peabody and Verle R. Peabody on November 22, 1972 and recorded in the Recorder’s Office as Instrument Number 72-37511.
05019648	Dedication Agreement for Real Property made by Adam F. Hoesly on October 12, 2007 and recorded in the Recorder’s Office as Instrument Number 2007-092290.
05000035	Bargain & Sale Deed made by Robinwood Riviere Property Owners Association on September 1, 1999 and recorded in the Recorder’s Office as Instrument Number 99-088195 (the “Robinwood Deed”).
00526256, 00526265 and 00526924	Deed made by the State of Oregon, Parks and Recreation Department, on May 12, 1992 and recorded in the Recorder’s Office as Instrument Number 92-30263. Warranty Deed made by Jack W. Parker on March 5, 1974 and recorded in the Recorder’s Office as Instrument Number 74-

	6136.
00526274	<p>Deed made by the State of Oregon, Parks and Recreation Department, on May 12, 1992 and recorded in the Recorder's Office as Instrument Number 92-30263.</p> <p>Deed made by the State of Oregon, acting by and through the Division of State Lands, on January 22, 1979 and recorded in the Recorder's Office as Instrument Number 79-3809 (the "DSL Deed").</p>

Rinearson Natural Area, LLC, an Oregon limited liability company ("Rinearson"), intends to implement a natural resource damage assessment restoration project known as the Rinearson Natural Area Restoration Project (the "Project") on certain property located in the City of Gladstone and Clackamas County, Oregon containing approximately 33.156 acres, including a portion of the City Land, and being more particularly shown on Attachment "A-1" and described on Attachment "A-2" (the "Project Land"). Attachments "A-1" and "A-2" are incorporated herein by reference. The portion of the City Land included in the Project is hereafter referred to as the "Property". Rinearson and Declarant have entered into an agreement by which Rinearson has the sole and exclusive right to conduct all activities on the Property necessary to complete the Project (the "Project Agreement"). Pursuant to the Project Agreement, Declarant has agreed to restrict the Property in order to protect the completed Project in perpetuity.

Therefore, in accordance with the Project Agreement, Declarant hereby restricts, as set forth below, the uses to which the Property may be put. The Declarant declares that these restrictions shall constitute covenants that run with the land, as provided by applicable law, and said restrictions shall continue in perpetuity or for the maximum period allowed by law. The restrictions on the Property's use under this Declaration of Covenants, Conditions and Restrictions and Grant of Irrevocable Right of Entry (this "Declaration") shall be binding on the Declarant, its personal representatives, heirs, successors, assigns, employees, agents, lessees, permittees, licensees and invitees, and any subsequent person or entity claiming an interest in the Property. However, this Declaration will terminate at the time that Declarant conveys a conservation easement approved by the Trustee Council (defined below) to an authorized holder. Declarant and the Trustee Council shall prepare and record any instruments reasonably necessary to remove any cloud to title on the Property.

COVENANTS, CONDITIONS, AND RESTRICTIONS:

The Property shall be restricted to the following uses:

1. Uses by Rinearson and the Trustee Council (as defined in this section) furthering natural resource damage assessment restoration objectives. The Portland Harbor Natural Resource Trustee Council consists of the National Oceanic and Atmospheric Administration on behalf of the Department of the Commerce, the United States Fish and Wildlife Service on behalf of the Department of Interior, the Oregon

Department of Fish and Wildlife on behalf of the State of Oregon, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe (collectively hereinafter the “Trustee Council”). The term “natural resource” shall be defined pursuant to 42 U.S.C. § 9601 (16).

2. Implementation of the Project consistent with and pursuant to the terms of the Rinearson Natural Area Habitat Development Plan (including Exhibits), incorporated herein by reference and agreed to by the Trustee Council and Rinearson (the “Habitat Development Plan”).
3. Purposes compatible with the preservation and enhancement of native species and their habitats in a manner consistent with the conservation purposes and performance standards set forth in the Habitat Development Plan.

The Property shall not be used for any purposes inconsistent with the Project and the perpetual protection and conservation of the Property as provided in the Habitat Development Plan. All rights accruing from Declarant’s ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited herein and are not inconsistent with the purposes of this Declaration are reserved to Declarant and Declarant’s personal representatives, heirs, successors, and assigns.

Prohibited uses of the Property, insofar as they are not actions specifically identified by the Habitat Development Plan and its Exhibits, include, but are not limited to, the following:

1. Construction, reconstruction or placement of any permanent building or structure.
2. Unseasonable watering; use of fertilizers, biocides, or other agricultural chemicals; incompatible fire protection activities; and any and all other uses which may adversely affect conservation objectives and performance standards set forth in the Habitat Development Plan.
3. Grazing or agricultural activity of any kind.
4. Commercial or industrial uses.
5. Depositing or accumulating soil, trash, ashes, refuse, waste, bio-solids or any other material.
6. Filling, dumping, excavating, draining, dredging, mining, drilling, removing, exploring for or extracting minerals, loam, gravel, soil, rock, sand or other material on or to a depth of 100 feet below the surface of the Property, or granting or authorizing surface entry for any of these purposes.
7. Altering the surface or general topography of the Property, including building roads, paving or otherwise covering the Property with concrete, asphalt, or another impervious material.
8. Removing, destroying, or cutting trees, shrubs or other vegetation, except to the extent otherwise consistent with the Habitat Development Plan and as required for: (i) fire breaks; (ii) maintenance of existing foot trails or roads; (iii) prevention or treatment of disease; (iv) utility line clearance; (v) levee easement clearance; (vi)

- invasive species management; or (vii) prevention or remediation of vegetation that creates a substantial risk of bodily injury or property damage. Except (i) for activities specifically authorized under the Habitat Development Plan or (ii) in the event of an emergency, in which case Declarant shall notify Rinearson and the Trustee Council as soon as practicable; Declarant shall provide prior notice and consult with Rinearson and the Trustee Council prior to cutting or removing trees, shrubs or other vegetation for the purposes authorized in this section.
9. Use of motorized vehicles, including off-road vehicles, except on existing roadways, inasmuch as they are harmful or adverse to the conservation objectives of the Habitat Development Plan. Notwithstanding the forgoing, use of motorized vehicles is allowed for the limited purposes of land management, restoration project implementation, and monitoring to the extent consistent with the Habitat Development Plan. Use of emergency vehicles is allowed for the limited purpose of emergency response, in which case Declarant shall notify Rinearson and the Trustee Council as soon as practicable.
 10. Transferring any water, mineral, or air rights potentially beneficial to the maintenance or restoration of the biological resources of the Property.
 11. Planting, introduction, or dispersal of invasive or exotic plant or animal species.
 12. Manipulating, impounding or altering any natural watercourse, body of water or water circulation on the Property, other than those actions set forth under the Habitat Development Plan, and any activities or uses that are or are likely to be detrimental to water quality, including but not limited to degradation or pollution of any surface or sub- surface waters.
 13. Permitting a general public right of access to the Property, provided, however, that (i) public access may be permitted on the trails identified in the Habitat Development Plan and (ii) volunteer organizations, education-related groups, news media and similar third parties may be allowed to temporarily enter the Property for the limited purposes of inspection, education or public relations. All rights of access permitted under this section shall be in accordance with and subject to the provisions of and restrictions set forth in this Declaration.
 14. Hunting.
 15. Trapping of native species.

GRANT OF RIGHT OF ENTRY:

The Declarant hereby grants Rinearson, the Trustee Council or either of their designee(s) an irrevocable right and license to enter the Property at reasonable times, subject to giving the Declarant 48-hours' notice (except in cases where Rinearson and/or the Trustee Council or either of their designee(s) determine that immediate entry is required to preserve the conservation values of the Property) to monitor the Declarant's compliance with the terms of this Declaration and for other purposes not inconsistent with this instrument; provided that Rinearson and/or the Trustee Council or its designee(s) shall not unreasonably interfere with the Declarant's authorized use and quiet enjoyment of the Property.

ENFORCEMENT:

The Declarant hereby grants Rinearson, the Trustee Council and either of their designee(s) the right to enforce the terms of this instrument and prevent any activity or use of the Property that is inconsistent with the terms of this instrument or the Habitat Development Plan and, thus, detrimental to the interests of Rinearson, the Trustee Council and either of their designee(s). Further, consistent with the forgoing grant of a right of enforcement, the Declarant hereby expressly recognizes that Rinearson, the Trustee Council and either of their designee(s) are intended third-party beneficiaries and have standing to enforce the terms of this instrument and the Habitat Development Plan and require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use or activity that is inconsistent with the purposes of this instrument and the Habitat Development Plan. In the event that the Trustee Council disbands during the term of this instrument, the Trustee Council's appointed designee(s), if any, shall enforce the terms of this instrument pursuant to any agreement entered into by members of the Trustee Council which governs the Trustee Council members' process to exercise enforcement rights, including the third-party right of enforcement granted to the Trustee Council and its designee(s) pursuant to this instrument. In the event that the members of the Trustee Council do not enter into a separate agreement governing the Trustee Council's exercise of the third-party rights of enforcement granted herein prior to disbanding or otherwise ceasing to act as a group, each party that comprised the Trustee Council shall be deemed a third-party beneficiary to this instrument and may enforce the terms of this instrument as if such former member or member(s) are named parties to this instrument. Declarant, at the written request of a member of the Trustee Council or its authorized representative, agrees to promptly execute and deliver all such further documents or instruments, and to promptly take and forbear from all such actions, as may be reasonably necessary or appropriate in order more effectively confirm or carry out the provisions of this Declaration and the rights granted herein.

PROPERTY:

It is Declarant's intention that any and all property now or hereafter owned by Declarant, its successors or assigns, comprising a part of the Project Land be subject to this Declaration. Therefore, if it is ever determined that Declarant, its successors or assigns, owns additional property within the Project Land, this Declaration shall automatically and without further action apply to such additional property.

Declarant specifically acknowledges and confirms that (i) the Project is consistent with the use restrictions set forth in the Parks and Rec Deed, the Robinwood Deed, DSL Deed and the 2007 Deed "Dedication Agreement for Real Property" (collectively, the "Use Restriction Deeds") and (ii) the Project does not trigger the reversionary rights set forth in any of the Use Restriction Deeds. A copy of a letter confirming the reversionary right under the Robinwood Deed is not triggered is attached as Attachment "B". Notwithstanding anything else contained herein or elsewhere to the contrary, Declarant confirms that the restrictions set forth in this Declaration shall continue to apply to the property described in the Use Restriction Deeds even if a reversionary right is triggered.

IN WITNESS WHEREOF, the undersigned being duly authorized by the Declarant herein, has unto set its hand this _____ day of __, 2017.

FOR THE DECLARANT,
CITY OF GLADSTONE, OREGON

By: _____
Name: _____
Title: _____

STATE OF OREGON
COUNTY OF _____

This instrument was acknowledged before me on _____ (date) by
_____ as _____ on behalf of the City.

NOTARY PUBLIC

Print Name: _____

My Commission Expires:

VICINITY MAP

NO SCALE

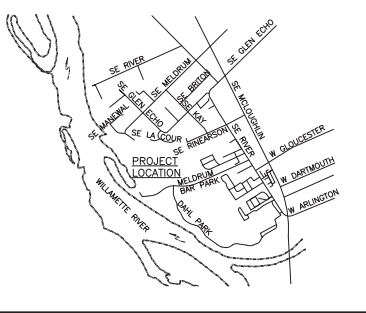


EXHIBIT "LIMITS OF IMPROVEMENTS"

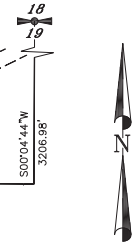
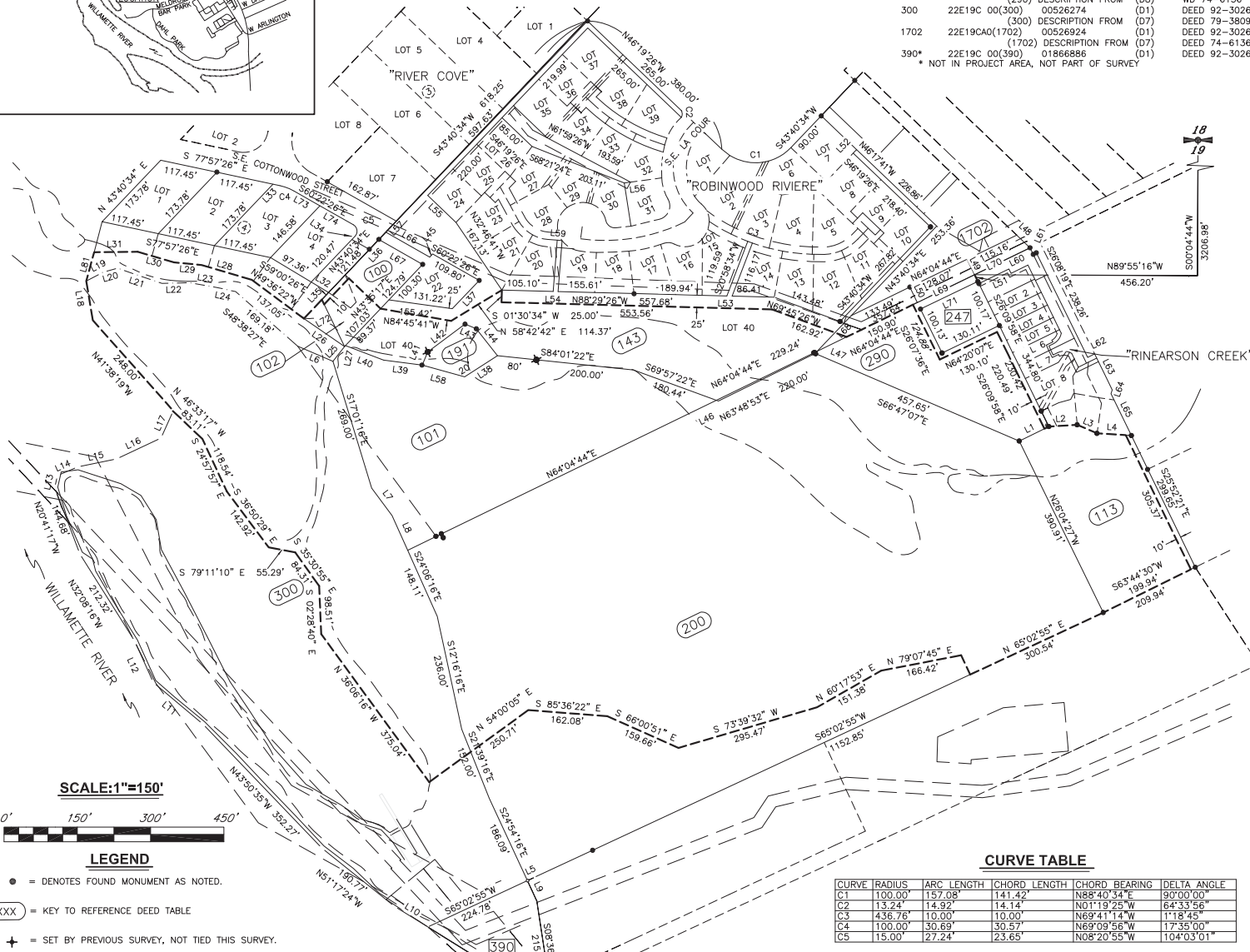
FOR
RINEARSON NATURAL RESOURCE AREA
SITUATED IN SOUTH HALF OF SECTION 19
TOWNSHIP 2 SOUTH, RANGE 2 EAST, WILLAMETTE MERIDIAN,
CITY OF GLADSTONE, CLACKAMAS COUNTY, STATE OF OREGON.
NO CORNERS SET WITH THIS MAPPING.

REFERENCE DEEDS

SURVEY	TAX LOT	ALL IN CLACKAMAS COUNTY DEED RECORDS	GRANTEE (OWNER)
		PARCEL# REF. # DEED	
101	22E19CA00(101)	00526354 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(101)	DESCRIPTION FROM (D2)	WD 72-37511 STATE OF OREGON, DOT
102 & 100	22E19CA00(102)	00526363 (D3)	QCD 2005-050728 CORNELL V SAPTENON
113	22E19DB00(113)	05019648 (D4)	DED 2007-092290 CITY OF GLADSTONE, OR
143	22E19CA00(143)	01606925 (D5)	WD 76-22575 EXP BAS DEED 99-088195
191	22E19CA00(191)	05000355 (D6)	BAS DEED 99-088195 CITY OF GLADSTONE, OR
200	22E19C 00(200)	00526256 (D7)	DEED 92-30263 CITY OF GLADSTONE, OR
	(200)	DESCRIPTION FROM (D1)	DEED 74-6136 ST OF OR DOT-HWY DIV
290	22E19C 00(290)	00526265 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
300	22E19C 00(300)	00526274 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(300)	DESCRIPTION FROM (D7)	DEED 79-3809 ST OF OR DOT-HWY DIV
1702	22E19CA00(1702)	00526924 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(1702)	DESCRIPTION FROM (D7)	DEED 74-6136 ST OF OR DOT-HWY DIV
390*	22E19C 00(390)	01866886 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
* NOT IN PROJECT AREA, NOT PART OF SURVEY			

LINE TABLE

LINE	BEARING	DISTANCE
L1	N63°55'33"E	87.25'
L2	N86°24'24"E	58.33'
L3	S66°44'30"E	44.13'
L4	S66°24'20"E	70.31'
L5	S65°02'56"W	16.26'
L6	S65°31'16"E	80.00'
L7	S36°36'16"E	70.00'
L8	S45°08'15"E	77.89'
L9	S24°54'16"E	45.91'
L10	N58°19'55"W	79.59'
L11	N49°57'42"W	132.22'
L12	N24°12'08"W	91.96'
L13	N12°25'58"E	25.00'
L14	N66°56'28"E	44.94'
L15	N78°14'00"E	81.88'
L16	N64°53'48"E	100.15'
L17	N24°14'34"E	60.99'
L18	N69°25'55"W	81.45'
L19	N62°19'00"E	38.55'
L20	N74°09'19"E	30.50'
L21	S71°09'55"E	96.46'
L22	N88°30'46"E	95.81'
L23	S80°14'48"E	57.71'
L24	N77°39'43"W	39.15'
L25	N44°55'38"E	75.00'
L26	S24°32'08"W	100.98'
L27	N43°35'17"E	2.66'
L28	S78°51'11"E	107.14'
L29	N64°32'08"W	46.87'
L30	S73°44'04"E	77.47'
L31	N89°26'35"E	89.18'
L32	N82°29'22"E	80.00'
L33	S77°57'26"E	14.63'
L34	S43°40'55"W	9.28'
L35	N43°40'55"E	9.28'
L36	N43°40'55"E	28.14'
L37	S43°40'54"W	79.93'
L38	N57°18'53"E	80.00'
L39	N88°30'46"E	80.00'
L40	S69°05'37"E	83.56'
L41	N22°44'44"E	29.25'
L42	N61°12'08"E	95.10'
L43	S67°38'13"E	24.97'
L44	S38°10'28"E	70.30'
L45	N43°40'54"E	8.98'
L46	S69°05'37"E	35.23'
L47	N43°40'55"E	6.49'
L48	N46°19'26"W	37.53'
L49	N59°18'17"E	4.56'
L50	N25°53'03"W	35.89'
L51	S26°04'28"E	15.34'
L52	S43°40'54"W	10.00'
L53	N88°09'28"W	10.61'
L54	N88°29'28"W	10.01'
L55	N46°19'26"W	80.00'
L56	N82°12'56"E	61.03'
L57	N43°40'54"E	31.30'
L58	S74°28'52"E	90.00'
L59	N59°18'17"E	61.03'
L60	S26°04'27"E	15.00'
L61	N63°55'31"E	7.15'
L62	N63°11'18"E	16.12'
L63	S26°02'48"E	82.00'
L64	S18°40'04"W	8.30'
L65	S26°01'13"E	95.08'
L66	S60°22'26"E	103.03'
L67	S60°15'47"E	102.98'
L68	N43°40'54"E	100.90'
L69	N43°40'54"E	130.15'
L70	N64°04'44"E	126.18'
L71	S64°19'08"W	130.20'
L72	S25°48'00"E	106.73'
L73	S60°22'26"E	61.20'
L74	S60°22'26"E	78.70'
L75	S60°22'26"E	41.25'
L76	S59°42'58"E	106.28'
L77	N26°04'27"W	20.34'
L78	N45°26'22"E	99.79'
L79	S60°24'45"E	102.68'



SCALE: 1"=150'



LEGEND

- = DENOTES FOUND MONUMENT AS NOTED.
- XXX = KEY TO REFERENCE DEED TABLE
- + = SET BY PREVIOUS SURVEY, NOT TIED THIS SURVEY.

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	100.00'	157.08'	141.42'	N88°40'34"E	90°00'00"
C2	13.24'	14.92'	14.14'	N01°19'25"W	64°33'56"
C3	436.76'	10.00'	10.00'	N69°11'14"W	1°18'45"
C4	100.00'	30.69'	30.53'	N69°09'56"W	17°35'00"
C5	15.00'	27.24'	23.65'	N08°20'55"W	104°03'01"

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 27, 1988
GREGORY D SPURLOCK
2307
EXPIRES: 06/30/2016

STATEWIDE LAND SURVEYING INC.
WWW.STATEWIDESURVEYING.COM
E.SURVEY@STATEWIDESURVEYING.COM

SWLS

DRAWN	DATE	500 NW 20TH ST #101 GRESHAM, OR 97030
G.D.S.	8/7/2015	(F) 503.665.7988
CHECKED	DATE	(D) 503.665.7777
G.D.S.	9-29-15	
SCALE	SHEET	PROJECT NO.
1" = 150'	1 OF 1	2015-42



BOUNDARY DESCRIPTION

A TRACT OF LAND LYING WITHIN A PORTIONS OF LAND FOUND IN DEED 92-30263 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON MAY 19 1990, ALSO WITHIN A PORTION OF LAND FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO WITHIN A PORTION OF LAND FOUND IN QUIT CLAIM DEED 2005-050728 TO CORNELL V SAFTENCU, AS RECORDED IN CLACKAMAS COUNTY ON JUNE 03 2005, ALSO WITHIN A PORTION OF LAND FOUND IN WARRANTY DEED 76-22575 TO THE ROBINWOOD RIVIERE PROPERTY OWNERS' ASSOCIATION, AS RECORDED IN CLACKAMAS COUNTY ON JULY 6 1976, ALSO WITHIN THE LAND FOUND IN BARGAIN & SALE DEED ``99-088195 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY SEPTEMBER 7 1999, ALL SAID LAND SITUATED WITHIN THE P.M. RINEARSON DONATION LAND CLAIM (D.L.C.) AND INDEXED WITHIN THE SOUTH HALF OF SECTION 19 TOWNSHIP 2 SOUTH, RANGE 2 EAST OF CLACKAMAS COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS TO WIT:

COMMENCING AT STONE (STONE NO. 1) SET IN THE DIVISION LINE BETWEEN THE NORTH 1/2 AND SOUTH 1/2 OF THE P.M. RINEARSON D.L.C, AS FOUND BY MELDRUM IN 1908, SEE BLUE FIELD BOOK FILE 1905-1908 BOOK 21 PAGES 111-118 AND AS SHOWN ON SURVEY CS-7476 BY BERTELL MASON JR, FROM WHICH BEARS ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST AT A DISTANCE OF 1341.93 FEET, (CS-7476 SOUTH 64°00'00" WEST - 1341.42 FEET) A STONE (STONE NO. 2), ALSO FOUND BY MELDRUM, SAID SECOND STONE IS REFERENCED BY; A 1-1/4" GAS PIPE BEARING SOUTH 42°24'46" EAST AT A DISTANCE OF 8.91 FEET, (CS-7476 SOUTH 40°30' WEST - 9.08 FEET), A 1/2" REBAR BEARING SOUTH 67°30'24" WEST AT A DISTANCE OF 8.91 FEET, A 5/8" IRON ROD BEARING NORTH 54°04'56" WEST AT A DISTANCE OF 2.64 FEET,

THENCE, FROM SAID STONE NO. 1 SOUTH 64°04'44" WEST ALONG SAID DIVISION LINE FOR A DISTANCE OF 266.39 FEET TO THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION;

THENCE, CONTINUING ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST FOR A DISTANCE OF 150.90 FEET;

THENCE, DEPARTING SAID DIVISION LINE AND RUNNING 25 FEET OFFSET AND PARALLEL TO THE SOUTHERLY LINE OF LOT 12 THROUGH LOT 20 OF



THE PLAT OF ROBINWOOD RIVIERE AS RECORDED IN PLAT BOOK 63 AT PAGE 30 (PLAT NO. 1943), RECORDED AT CLACKAMAS COUNTY, THE FOLLOWING COURSES AND DISTANCES;

NORTH 69°45'26" WEST FOR A DISTANCE OF 162.92 FEET;
NORTH 88°29'26" WEST FOR A DISTANCE OF 553.56 FEET;

THENCE, DEPARTING SAID OFFSET LINE NORTH 01°30'34" EAST FOR A DISTANCE OF 25.00 FEET TO THE SOUTHERLY CORNER COMMON TO LOT 20 AND LOT 21 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, SOUTH 58°42'42" WEST FOR A DISTANCE OF 121.53 FEET TO A POINT THAT BEARS SOUTH 05°38'35" WEST A DISTANCE 25 FEET FROM THE SOUTHEASTERLY CORNER OF LOT 22 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, NORTH 80°09'46" WEST FOR A DISTANCE OF 146.57 FEET TO A POINT ON THE EASTERLY LINE OF THAT CERTAIN LANDS OF CORNELL V. SAFTENCU, BEING THE SOUTHEASTERLY CORNER OF PARCEL 1 AND THE NORTHEASTERLY CORNER OF PARCEL 2, AS RECORDED BY DOCUMENT NUMBER 2005-050728 RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE LINE COMMON OF PARCEL 1 AND PARCEL 2 OF SAID CORNELL V. SAFTENCU LANDS NORTH 46°20'01" WEST FOR A DISTANCE OF 89.88 FEET TO A POINT 10 FOOT OFFSET SOUTHEASTERLY FROM THE EASTERLY LINE OF LOT A OF THE PLAT OF RIVER COVE AS RECORDED IN PLAT BOOK 29 AT PAGE 10 (PLAT NO. 801), RECORDS OF CLACKAMAS COUNTY;

THENCE, 10 FEET PARALLEL AND OFFSET FROM THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28' 20" WEST FOR A DISTANCE OF 73.40 FEET TO A POINT ON THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LANDS, (DESCRIBED IN SAID DEED AS THE EASTERLY BANK OF THE WILLAMETTE RIVER AT MEAN HIGH WATER STAGE);

THENCE, ALONG THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LAND NORTH 25°48'00" WEST FOR A DISTANCE OF 10.69 FEET TO POINT ON THE SOUTHERLY PROJECTION OF THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE;

THENCE, ALONG THE SOUTHERLY PROJECTION OF THE EASTERLY LINE LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28'20" WEST FOR A



DISTANCE OF 53.35 FEET TO THE APPROXIMATE CENTERLINE AND
EASTERLY TERMINUS OF MELDRUM'S SLOUGH;

THENCE, ALONG THE APPROXIMATE CENTERLINE OF MELDRUM'S SLOUGH
THE FOLLOWING COURSES AND DISTANCES;

NORTH 53°21'33" WEST FOR A DISTANCE OF 132.73 FEET,
NORTH 73°31'11" WEST FOR A DISTANCE OF 107.14 FEET,
NORTH 84°32'58" WEST FOR A DISTANCE OF 56.87 FEET ,
NORTH 73°44'04" WEST FOR A DISTANCE OF 77.47 FEET,
SOUTH 89°26'35" WEST FOR A DISTANCE OF 89.18 FEET TO POINT ON
THE EASTERLY BANK OF THE WILLAMETTE RIVER AT ORDINARY LOW
WATER;

THENCE, ALONG THE EASTERLY BANK OF SAID WILLAMETTE RIVER AT
ORDINARY LOW WATER, THE FOLLOWING COURSES AND DISTANCES,
SOUTH 15°14'52" WEST FOR A DISTANCE OF 61.17 FEET,
SOUTH 09°25'35" EAST FOR A DISTANCE OF 81.45 FEET,
SOUTH 41°38'19" EAST FOR A DISTANCE OF 241.44 FEET TO THE
APPROXIMATE BEGINNING OF THAT PORTION OF THE NORTHEASTERLY
BANK KNOWN AS MELDRUM'S BAR PUBLIC BOATWAY ACCESS CHANNEL,
AT ORDINARY LOW WATER;

THENCE, ALONG THE NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AT ORDINARY LOW WATER, THE
FOLLOW COURSES AND DISTANCES,

SOUTH 45°40'44" EAST FOR A DISTANCE OF 89.19 FEET,
SOUTH 24°57'57" EAST FOR A DISTANCE OF 118.54 FEET,
SOUTH 36°50'29" EAST FOR A DISTANCE OF 142.92 FEET,
SOUTH 79°11'10" EAST FOR A DISTANCE OF 55.29 FEET,
SOUTH 35°30'55" EAST FOR A DISTANCE OF 84.31 FEET,
SOUTH 02°28'40" EAST FOR A DISTANCE OF 98.51 FEET,
SOUTH 36°06'16" EAST FOR A DISTANCE OF 375.04 FEET,

THENCE, DEPARTING SAID NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AND ALONG THE FOLLOWING
COURSES AND DISTANCES,

NORTH 54°00'05" EAST FOR A DISTANCE OF 250.71 FEET,
SOUTH 85°36'22" EAST FOR A DISTANCE OF 162.08 FEET,
SOUTH 66°00'51" EAST FOR A DISTANCE OF 159.66 FEET,
NORTH 73°39'32" EAST FOR A DISTANCE OF 295.47 FEET,
NORTH 60°17'53" EAST FOR A DISTANCE OF 151.38 FEET,
NORTH 79°07'45" EAST FOR A DISTANCE OF 166.42 FEET,



SOUTH 24°57'05" EAST FOR A DISTANCE OF 43.59 FEET TO THE SOUTHERLY LINE OF LAND DESCRIBED IN WARRANTY DEED 74-6136 TO STATE OF OREGON, AS RECORD IN CLACKAMAS COUNTY ON MARCH 14, 1974;

THENCE ALONG SOUTHERLY LINE OF SAID WARRANTY DEED 74-6136, NORTH 65°02'55" EAST FOR AS DISTANCE OF 300.54 FEET TO THE SOUTHWESTERLY CORNER OF LANDS FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE, OREGON AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO THE SOUTHWESTERLY CORNER OF TRACT B PLAT OF RINEARSON CREEK AS RECORD IN PLAT BOOK 136 AT PAGE 25 (PLAT NO. 4163), RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE SOUTHERLY LINE OF LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK, NORTH 63°44'30' EAST FOR A DISTANCE 199.94 TO A POINT 10 FOOT OFFSET FROM THE EASTERLY LINE OF SAID TRACT B;

THENCE, NORTH 25°52'21" WEST OFFSET 10 FEET AND PARALLEL TO THE EASTERLY LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK FOR A DISTANCE OF 305.37 FEET TO A POINT ON THE SOUTHERLY LINE OF LOT 11 OF SAID PLAT OF RINEARSON CREEK;

THENCE ALONG THE SOUTHERLY LINE OF LOT 11, 10 AND 9 OF SAID PLAT OF RINEARSON CREEK;
NORTH 86°24'20" WEST FOR A DISTANCE OF 58.82 FEET,
NORTH 66°44'30" WEST FOR A DISTANCE OF 44.13 FEET,
SOUTH 86°24'24" WEST FOR A DISTANCE OF 58.33 FEET TO THE SOUTHWESTERLY CORNER OF LOT 9 OF SAID PLAT OF RINEARSON CREEK;

THENCE, DEPARTING SAID PLAT OF RINEARSON CREEK SOUTH 63°55'33" WEST FOR A DISTANCE OF 10 FEET AND OFFSET FROM SAID PLAT OF RINEARSON CREEK;

THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO THE WESTERLY LINE OF LOT 9, 8, 7, 6, 5, 4 OF SAID PLAT OF RINEARSON CREEK NORTH 26°04'27" WEST FOR A DISTANCE OF 220.49 FEET TO A POINT 10 FOOT OFFSET FROM THE SOUTHERLY LINE OF THE LAND OF NANCY JO TOWLE AND CARL E. POSTON AS RECORDED BY STATUTORY BARGAIN AND SALE DEED DOCUMENT NUMBER 2010-047066 RECORDS OF CLACKAMAS COUNTY;



THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO SAID DEED SOUTH 64°20'07" WEST FOR A DISTANCE OF 130.10 FEET;

THENCE, CONTINUING AT 10 FOOT OFFSET AND PARALLEL TO SAID DEED NORTH 26°07'36" WEST FOR A DISTANCE OF 124.88 FEET TO POINT ON SAID DIVISION LINE AND THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION, SAID DESCRIPTION ENCLOSES 33.156 ACRES, MORE OR LESS.

SUBJECT TO EASEMENTS AND ENCUMBRANCES OF RECORD, IF ANY.



July 19, 2016

Mr. Robert Proutt
Rinearson Natural Area, LLC
c/o Falling Springs, LLC
6243 River Road, Suite 7
Richmond, Virginia 23229

Re: Rinearson Natural Area Restoration Project – Reversionary Right Not Triggered

Bobby:

The Robinwood Riviere Property Owners' Association (POA) conveyed property to the City of Gladstone (the City) by a Property Transfer Agreement of May 1, 1997, and a Bargain and Sale Deed of September 1, 1999. Both documents are enclosed.

Section 4 of the Agreement provides:

"4. Use of Mitigation Parcel. Article II, Section 1.C of the Association's Declaration of Conditions and Restrictions (the "Restrictions") allows the Association to transfer the Mitigation Parcel only if said parcel is used for purposes of open space or recreational. The parties agree that the Mitigation Parcel will be used in perpetuity only for the construction of a dam and related improvements (which shall not deviate in any material respect from the improvements shown on the diagram attached as Exhibit A) and the maintenance of the resulting wetland area and if not so used and maintained, the Mitigation Parcel shall revert to the Association. The Association believes that the construction of a dam and the creation and maintenance of a wetland area constitutes "open space" as allowed by Article II, Section 1.C of the Restrictions, and agrees that, so long as the Mitigation Parcel continues to be used for such purposes, the Association will not make any claim to enforce or exercise its reverter right under the Declaration. Thomason shall, during the course of construction of the dam and related improvements, (i) provide periodic written progress reports to the President of the Association, and (ii) consult with the President of the Association prior to making any material changes to the improvements shown on Exhibit A."

The Deed provides:

"This conveyance is made upon the express condition that Grantee and its successors shall only use the Property for the construction and operation of a dam and related improvements. If the foregoing covenant is violated, the Grantor or its assigns may re-enter and terminate the estate hereby conveyed."

The POA and the City contracted with Rinearson Natural Area, LLC, to develop the Rinearson Natural Area Restoration Project on the property conveyed to the City, as well as other property owned by the

City, the POA and individual land owners situated on lower Rinearson Creek in Clackamas County. This project is an aquatic, wetland, floodplain and riparian restoration and enhancement project being developed in coordination with the Portland Harbor Natural Resource Trustee Council (Trustee Council) as part of a regional restoration plan for the lower Willamette River to mitigate for environmental damages incurred as a result of contamination of the Portland Harbor.

As part of the project approval process, you have explained that the Trustee Council wishes the assurance of the POA that the restoration project does not violate the conditions cited above in the Agreement and the Deed. We have reviewed the draft "95% Design Submittal" plan dated April 11, 2016, for the project as prepared by Waterways Consulting Inc. which proposes alterations and modifications of the existing dam and related improvements. We confirm that alterations and modifications of the existing dam and related improvements constructed in accordance with the April 11, 2016, draft plan satisfy, or conversely do not violate, the conditions cited above in the Agreement and the Deed in that the property will continue to be used for open space and recreational in accordance with the POA's Declaration of Conditions and Restrictions. Therefore, our POA's reversionary right will not be triggered by the project.

If you need anything further from the POA regarding this issue, please let me know.

Sincerely,



William J. Dugan
President
Robinwood Riviere Property Owners' Association

Enclosures:

Property Transfer Agreement, May 1, 1997

Bargain and Sale Deed, September 1, 1999

10P
50
10
20ns

AFTER RECORDING, RETURN TO:

John H. Hammond, Jr.
Hutchison, Hammond, Welsh, Herndon & Goss
P.O. Box 648
West Linn, OR 97068

UNTIL A CHANGE IS REQUESTED,
SEND ALL TAX STATEMENTS TO:

City of Gladstone
525 Portland Avenue
Gladstone, OR 97027

BARGAIN & SALE DEED

ROBINWOOD RIVIERE PROPERTY OWNERS ASSOCIATION, Grantor, conveys to the CITY OF GLADSTONE, an Oregon municipal corporation Grantee, that certain real property located in Clackamas County, Oregon, and more particularly described on Exhibit A attached hereto.

This conveyance is made upon the express condition that Grantee and its successors shall only use the Property for the construction and operation of a dam and related improvements. If the foregoing covenant is violated, the Grantor or its assigns may re-enter and terminate the estate hereby conveyed.

The true consideration for this conveyance is good and valuable consideration other than money.

The purpose of this Deed is to effect the Lot Line Adjustment approved by the Clackamas County Department of Transportation and Development on April 23, 1999, File No. Z0307-99-PLA.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930.

DATED this 1 day of ^{SEPT} ~~May~~, 1999.

GRANTOR:

ROBINWOOD RIVIERE PROPERTY OWNERS ASSOCIATION

By Gregory Donald Smith
Its President

STATE OF OREGON)
County of Clackamas) ss.

99-088195

The foregoing instrument was acknowledged before me on ^{SEP} ~~May~~ 1, 1999, by Gregory Donald Smith as PRESIDENT of the Robinwood Riviere Property Owners Association.

Michelle Fitzgerald
Notary Public for Oregon
My commission expires 7-19-2002



7125-1(0174)02 (01)



EXHIBIT A

WESTLAKE
CONSULTANTS INC.

ENGINEERING ♦ SURVEYING ♦ PLANNING

Phone: 503 684-0652
Fax: 503 624-0157

Meldrum Dam
Project No.: 1052-01A-97
October 6, 1997

PROPERTY DESCRIPTION

A tract of land located in the S.W. 1/4 of Section 19, T. 2 S., R. 2 E., W. M., Clackamas County, Oregon, being more particularly described as follows:

Commencing at a point on the Division Line P.M. Rinearson D.L.C., said point being the most southerly angle point of Lot 40, Robinwood Riviere Subdivision, (Plat Book 62, Page 30), Clackamas County Records;

thence, along the southerly line of said Lot 40, North 70°11'56" West, 185.00 feet to an angle point;

thence, continuing along the southerly line of said Lot 40, North 84°15'56" West, 280.00 feet to an angle point, and the True Point of Beginning;

thence, leaving the southerly line of said Lot 40, North 37°55'41" West, 70.00 feet;

thence North-67°55'41" West, 25.00 feet;

thence South 53°04'19" West, 95.00 feet;

thence South 23°25'35" West, 29.76 feet to a point on the southerly line of said Lot 40;

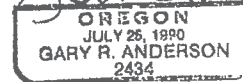
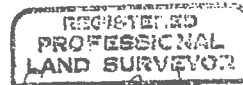
thence, continuing southeasterly along the southerly line of said Lot 40, South 74°43'26" East, 90.00 feet to an angle point;

thence, continuing along the southerly line of said Lot 40, North 57°04'19" East, 80.00 feet to the True Point of Beginning.

Containing 0.22 acres, more or less.

DAB: 10/6/97

h:\admin\105201\survey\pd\105201.doc /jk



Remud 2/3/97

|| Pacific Corporate Center, 15115 S.W. Sequoia Parkway, Suite 150, Tigard, Oregon 97224

AFFIDAVIT

We, the undersigned President and Secretary of Robinwood Riviere Property Owners' Association, hereby certify that the attached original of an Instrument Allowing Dedication or Transfer of Common Area contains the signatures required under Article II, Section 1.C. of our Declaration of Conditions and Restrictions in order to transfer a portion of the Association's common areas. The attached Instrument was prepared and signed in 1997; however, we do not know the exact date or dates on which the individuals signed the document.

Dated: August 11, 1999.

Gregory Smith
Greg Smith, President

Tami Sue Debord
Tami Debord, Secretary

STATE OF OREGON)
) ss.
County of Multnomah)

On this 13th day of August, 1999, personally appeared before me the within named GREG SMITH, known to me to be the identical individual described in and who executed the within instrument, and acknowledged to me that he executed the same freely and voluntarily.

Michelle Fitzgerald
Notary Public for Oregon

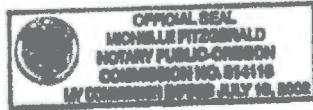


STATE OF OREGON)
) ss.
County of Multnomah)

On this 13th day of August, 1999, personally appeared before me the within named TAMI DEBORI, known to me to be the identical individual described in and who executed the within instrument, and acknowledged to me that she executed the same freely and voluntarily.

Michelle Fitzgerald

Notary Public for Oregon



Page 2 - AFFIDAVIT

**INSTRUMENT ALLOWING DEDICATION OR
TRANSFER OF COMMON AREA**

Robinwood Riviere Property Owners Association proposes to transfer certain real property which is a common area owned by the Association to the City of Gladstone (the Proposed Transfer). The parcel to be transferred and all of the common area to be effected is generally described and shown in Exhibit 1 attached hereto. The area will be used as open space for wetlands.

Article II, Section 1.C. of the Declaration of Conditions and Restrictions for the Association provides that no dedication or transfer of common area shall be effective unless an instrument signed by two-thirds (2/3) of each class of members agreeing to such dedication or transfer has been recorded.

This instrument, signed by the following members of Robinwood Riviere Property Owners Association constitutes the instrument required by Article II, Section 1.C. of the Declaration of Conditions and Restrictions to authorize the Proposed Transfer.

William J. Dugan
Name (signature)
WILLIAM J. DUGAN
Name (print)
4728 SE LA COUR
MILWAUKIE, OR 97267
Address

Roger L. Unis
Name (signature)
ROGER UNIS
Name (print)
4736 SE LACOUR
MILWAUKIE, OR 97267
Address

Paul M. Thompson
Name (signature)
PAUL M. THOMPSON
Name (print)
4732 SE LACOUR
MILWAUKIE, OR 97267
Address

Charles Flack
Name (signature)
Charles FLACK
Name (print)
4744 SE LACOUR CT
MILWAUKIE, OR 97267
Address

Page 1 - INSTRUMENT ALLOWING DEDICATION OR TRANSFER OF COMMON AREA

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**INSTRUMENT ALLOWING DEDICATION OR
TRANSFER OF COMMON AREA**

Robinwood Riviere Property Owners Association proposes to transfer certain real property which is a common area owned by the Association to the City of Gladstone (the Proposed Transfer). The parcel to be transferred and all of the common area to be effected is generally described and shown in Exhibit 1 attached hereto. The area will be used as open space for wetlands.

Article II, Section 1 C. of the Declaration of Conditions and Restrictions for the Association provides that no dedication or transfer of common area shall be effective unless an instrument signed by two-thirds (2/3) of each class of members agreeing to such dedication or transfer has been recorded.

This instrument, signed by the following members of Robinwood Riviere Property Owners Association constitutes the instrument required by Article II, Section 1.C. of the Declaration of Conditions and Restrictions to authorize the Proposed Transfer.

William J. Dugan
Name (signature)
WILLIAM J. DUGAN
Name (print)
4728 SE LA COUR
MILWAUKIE, OR 97267
Address

Dennis S. Guffey
Name (signature)
Dennis S. Guffey
Name (print)
4764 SE La Cour Ct
Milwaukie, OR 97267
Address

Paul M. Thompson
Name (signature)
PAUL M. THOMPSON
Name (print)
4732 SE LACOUR
MILWAUKIE, OR 97267
Address

Name (signature)

Name (print)

Address

[Signature]
Name (signature)
J S WESTERBROOK
Name (print)
4752 La Cour Ct Milwau
Address

[Signature]
Name (signature)
Kathleen D. Cooper
Name (print)
4720 S.E. La Cour
Milwaukie, OR 97267
Address

[Signature]
Name (signature)
PAUL MURNIGHAN
Name (print)
4785 SE LACOUR CT.
MILWAUKIE, OR 97267
Address

[Signature]
Name (signature)
Christine R. Curatilo
Name (print)
4765 SE La Cour Ct
Milwaukie, OR 97267
Address

[Signature]
Name (signature)
KARLA KREMERS
Name (print)
4755 SE LACOUR CT
MILWAUKIE OR 97267
Address

[Signature]
Name (signature)
Jack Krueger
Name (print)
4771 S.E. La Cour Ct.
Milwaukie, OR 97267
Address

[Signature]
Name (signature)
William T. McCormack
Name (print)
4814 SE Glen Echo
Milwaukie, OR 97267
Address

[Signature]
Name (signature)
Daryl D. LaClef
Name (print)
4691 SE LaCour Ct
Milwaukie, OR 97267
Address

[Signature]
Name (signature)
Heidi Reiners
Name (print)
4601 SE LACOUR CT
MILWAUKIE OR 97267
Address

[Signature]
Name (signature)
DOUGLAS C. M=ALLISTER
Name (print)
4620 S.E. LACOUR CT.
MILWAUKIE, OR 97267
Address

Douglas K. Chan
Name (signature)
DOUGLAS K. CHAN
Name (print)
4724 S.E. LaCour
Mil., Or 97267
Address

John L. Steinhilber
Name (signature)
John L. Steinhilber
Name (print)
4630 S.E. LaCour
Milwaukee, OR. 97267
Address

Laird Provy
Name (signature)
LAIRD PROVY
Name (print)
4660 LA COUR
97267
Address

Marshall E. Fox
Name (signature)
Marshall E. Fox
Name (print)

Address

Elizabeth A. Flintjer
Name (signature)
Elizabeth A. Flintjer
Name (print)
4700 SE LaCour
97267
Address

Dennis R. Dehard
Name (signature)
DENNIS R. DEHARD
Name (print)
4740 SE. La Cour Ct.
Milwaukee, OR 97267
Address

Victor McPherson
Name (signature)
VICTOR MCPHERSON
Name (print)
4640 SE LACOUR
MILWAUKEE, OR 97267
Address

Louis F. Cannon Jr
Name (signature)
LOUIS F. CANNON JR
Name (print)
4760 SE LA COUR Ct.
97267
Address

Brenda Densen
Name (signature)
BRENDA DENSEN
Name (print)
4741 SE La Cour Ct
Milwaukee OR 97267
Address

Shirley Holmberg
Name (signature)
SHIRLEY HOLMBERG
Name (print)
4830 SE GLEN ECHO
97267
Address

Yvonne Carr
Name (signature)
Yvonne Carr
Name (print)
4630 La Cour
Milwaukie, Ore. 97167
Address

Name (signature)

Name (print)

Address

Name (signature)

Name (print)

Address

Name (signature)

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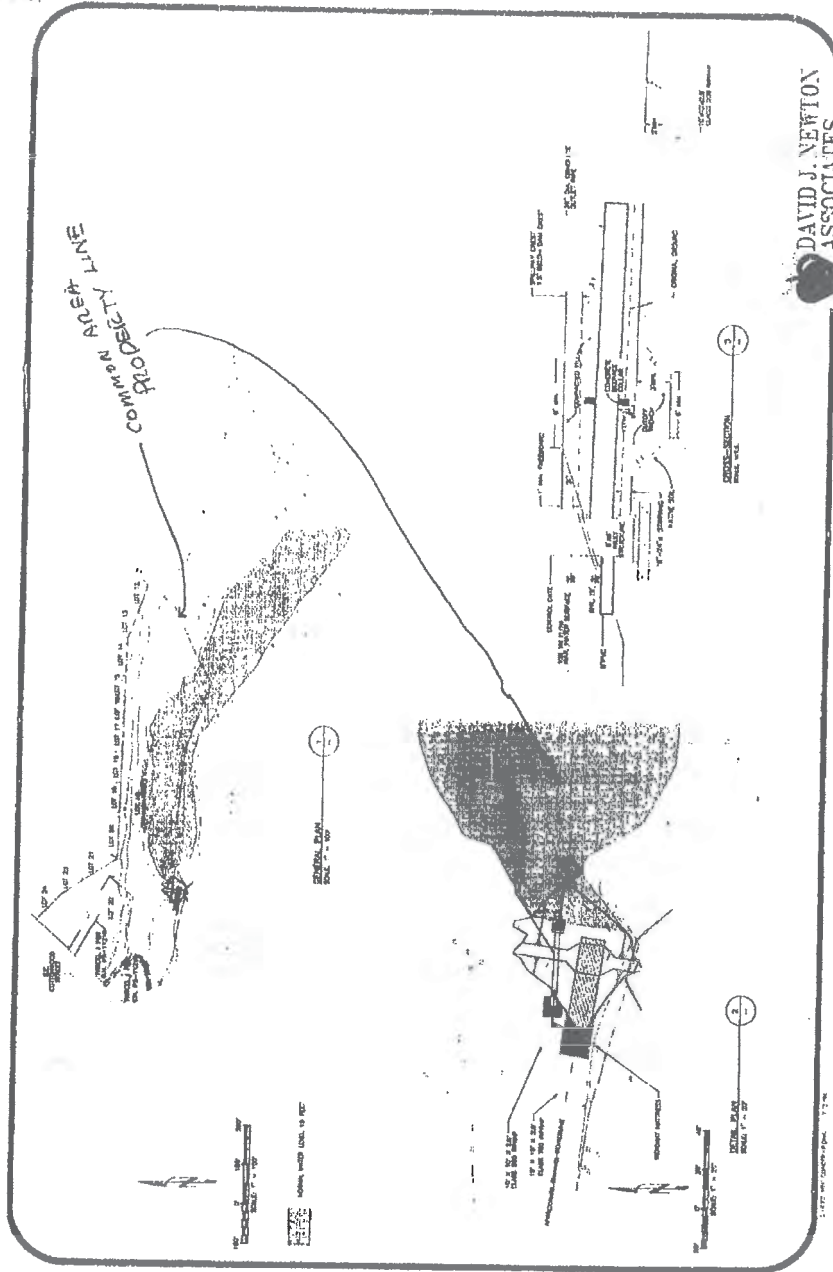
Address

Page 4 - INSTRUMENT ALLOWING DEDICATION OR TRANSFER OF COMMON AREA

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PREPARED FOR THOMASON

EXHIBIT J



11
STATE OF OREGON 99-088195
CLACKAMAS COUNTY
Received and placed in the public
records of Clackamas County
RECEIPT# AND FEE: 89682 880.00
DATE AND TIME: 09/07/99 03:27 PM
JOHN KAUFFMAN, COUNTY CLERK

PROPERTY TRANSFER AGREEMENT

THIS PROPERTY TRANSFER AGREEMENT, dated for reference purposes only May 1, 1997, is by and between THOMASON AUTO GROUP, INC., an Oregon corporation (Thomason), THE ROBINWOOD RIVIERE PROPERTY OWNERS ASSOCIATION (the Association) and the CITY OF GLADSTONE, an Oregon municipal corporation (City).

RECITALS

A. In order to accommodate certain wetlands mitigation to be performed by Thomason, Thomason has requested that the Association transfer to the City that certain parcel of real property consisting of approximately two-tenths of an acre and generally shown on the diagram attached as Exhibit A hereto (the Mitigation Parcel).

B. The Association is prepared to transfer the Mitigation Parcel to the City, and the City is prepared to accept such transfer, all on the conditions set forth in this Agreement.

NOW, THEREFORE, for valuable consideration, the parties agree as follows:

1. *Legal Description and Permits.* Upon full execution of this Agreement, Thomason shall, at its sole cost and expense, have a legal description of the Mitigation Parcel prepared by a licensed Oregon surveyor (the Survey). Thomason shall promptly deliver copies of the Survey to the Association and the City and the closing of the transaction contemplated by this Agreement is contingent upon approval of the Survey by the Association and the City, provided however, that such approval shall not be withheld so long as the Survey does not deviate in any material respect from the diagram attached as Exhibit A hereto. In addition, Thomason shall apply for all approvals and permits necessary for the transfer of the Mitigation Parcel to the City (the Permits).

2. *Preliminary Title Report.* Within ten days after full execution of this Agreement, the Association shall furnish to the City and Thomason, at Thomason's expense, a Preliminary Title Report issued by Fidelity National Title Insurance Company of Oregon (the Title Company) showing the condition of title to the Mitigation Parcel. At Closing, title to the Mitigation Parcel shall be conveyed free of encumbrances except real property taxes for the current tax year, reservations in federal patents and state deeds, easements, covenants and conditions of record, and building and use restrictions (the Permitted Exceptions).

3. *Closing.*

3.1 *Time and Place of Closing.* The Closing of the transaction provided in this Agreement shall take place within 15 days of the obtaining of the legal description and the Permits.

3.2 *Closing Documents.* The Mitigation Parcel shall be conveyed to the City at Closing by Bargain and Sale Deed. At Closing, (i) the Association shall also issue to the City and Thomason a revocable license allowing the City to flood that portion of the Association's remaining land designated as the "Water Area" on the diagram attached as Exhibit A hereto, and (ii) the City shall issue to Thomason a revocable license allowing Thomason to use the Mitigation Parcel for the purposes described in the permits.

3.3 *Title Insurance Policy.* Within 15 days after the Closing, the Association shall, if requested to do so by the City, cause the Title Company to furnish to the City, at Thomason's expense, an ALTA Owner's Policy of Title Insurance, standard form, in an amount mutually agreed upon by the parties to be the reasonable value of the Property. The title policy shall contain only the usual printed exceptions and the permitted exceptions.

4. *Use of Mitigation Parcel.* Article II, Section 1.C of the Association's Declaration of Conditions and Restrictions (the "Restrictions") allows the Association to transfer the Mitigation Parcel only if said parcel is used for purposes of open space or recreational. The parties agree that the Mitigation Parcel will be used in perpetuity only for the construction of a dam and related improvements (which shall not deviate in any material respect from the improvements shown on the diagram attached as Exhibit A) and the maintenance of the resulting wetland area and if not so used and maintained, the Mitigation Parcel shall revert to the Association. The Association believes that the construction of a dam and the creation and maintenance of a wetland area constitutes "open space" as allowed by Article II, Section 1.C of the Restrictions, and agrees that, so long as the Mitigation Parcel continues to be used for such purposes, the Association will not make any claim to enforce or exercise its reverter right under the Declaration. Thomason shall, during the course of construction of the dam and related improvements, (i) provide periodic written progress reports to the President of the Association, and (ii) consult with the President of the Association prior to making any material changes to the improvements shown on Exhibit A.

5. *Approval by Association Members.* Article II, Section 1.C of the Association's Declaration of Conditions and Restrictions provides that no transfer of its common area shall

be effective unless an instrument signed by two-thirds of each class of members agreeing to such transfer has been recorded. This Agreement shall be contingent upon the recording of such an instrument and shall be null and void if the Association is unable to obtain such an instrument. The Association shall exert its reasonable best efforts to obtain the approval described in this section as promptly as possible.

6. *Expenses.* Thomason shall pay the escrow fee (if any), the cost of recording the Deed and the cost of the title insurance policy. Thomason shall pay the reasonable attorney fees incurred by the Association in connection with Thomason's request that the Association enter into this Agreement, its preparation and its execution and performance, not to exceed \$3,000.

7. *Notice.* All notices and communications in connection with this Agreement shall be given in writing and shall be transmitted by certified or registered mail, return receipt requested, to the appropriate party at its address set forth below. Any notice so transmitted shall be deemed effective on the date it is placed in the United States mail, postage prepaid. Either party may, by written notice, designate a different address for purposes of this Agreement. The notices shall be addressed as follows:

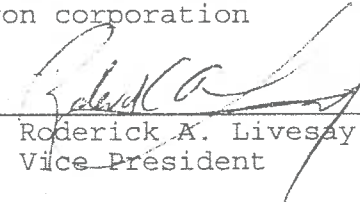
Thomason:	Thomason Auto Group, Inc. 19495 SE McLoughlin Boulevard Gladstone, OR 97027 Attention: Roderick A. Livesay
With a copy to:	Tonkon, Torp, Galen, Marmaduke & Booth 1600 Pioneer Tower 888 SW Fifth Avenue Portland, OR 97204-2099 Attention: Jeffrey H. Keeney
Association:	The Robinwood Riviere Property Owner's Association c/o Greg Smith 4790 SE LeCour Milwaukie, OR 97267
With a copy to:	Meyer & Wyse 900 SW Fifth Avenue, Suite 1900 Portland, OR 97204 Attention: Roger L. Meyer, Esq.

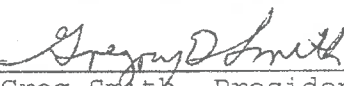
City: City of Gladstone
525 Portland Avenue
Gladstone, OR 97027
Attention: Jonathan Block

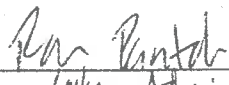
8. *Binding Effect.* This Agreement shall be binding upon and shall inure to the benefit of Thomason, the Association and the City and their respective successors and assigns. This Agreement may not be amended except by a written agreement executed by all parties hereto.

THE PROPERTY DESCRIBED IN THIS INSTRUMENT MAY NOT BE WITHIN A FIRE PROTECTION DISTRICT PROTECTING STRUCTURES. THE PROPERTY IS SUBJECT TO LAND USE LAWS AND REGULATIONS, WHICH, IN FARM OR FOREST ZONES, MAY NOT AUTHORIZE CONSTRUCTION OR SITING OF A RESIDENCE AND WHICH LIMIT LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930 IN ALL ZONES. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND EXISTENCE OF FIRE PROTECTION FOR STRUCTURES.

IN WITNESS WHEREOF, the parties have executed this Property Transfer Agreement as of the date first set forth above.

THOMASON AUTO GROUP, INC., an Oregon corporation
By 
Roderick A. Livesay, Executive Vice President

THE ROBINWOOD RIVIERE PROPERTY OWNERS ASSOCIATION
By 
Greg Smith, President of Board

CITY OF GLADSTONE, an Oregon municipal corporation
By 
Its City Admin

Appendix G-3a – Saftencu Interim Deed Restriction
DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICTIONS
AND GRANT IRREVOCABLE RIGHT OF ENTRY

Property Address: 19710 SE Cottonwood St., Milwaukie, OR 97267

Tax Parcel IDs: 00526363

Deed Reference(s): 2005-050728

County Recording No. _____

CORNELL SAFTENCU (hereafter, the “DECLARANT”) is the fee simple owner of certain property located in Clackamas County, Oregon, which property is more particularly described in that certain Quitclaim Deed made by Luanne K. Evans on December 22, 2004 and recorded in the Recorder’s Office for Clackamas County, Oregon as Instrument Number 2005-050728 (the “Saftencu Land”).

Rinearson Natural Area, LLC, an Oregon limited liability company (“Rinearson”), intends to implement a natural resource damage assessment restoration project known as the Rinearson Natural Area Restoration Project (the “Project”) on certain property located in the City of Gladstone and Clackamas County, Oregon, containing approximately 33.156 acres, including a portion of the Saftencu Land, and being more particularly shown on Attachment “A-1” and described on Attachment “A-2” (the “Project Land”). Attachments “A-1” and “A-2” are incorporated herein by reference. The portion of the Saftencu Land included in the Project is hereafter referred to as the “Property”. Rinearson and Declarant have entered into an agreement by which Rinearson has the sole and exclusive right to conduct all activities on the Property necessary to complete the Project (the “Project Agreement”). Pursuant to the Project Agreement, Declarant has agreed to restrict the Property in order to protect the completed Project in perpetuity.

Therefore, in accordance with the Project Agreement, Declarant hereby restricts, as set forth below, the uses to which the Property may be put. The Declarant declares that these restrictions shall constitute covenants that run with the land, as provided by applicable law, and said restrictions shall continue in perpetuity or for the maximum period allowed by law. The restrictions on the Property's use under this Declaration of Covenants, Conditions, and Restrictions and Grant of Irremovable Right of Entry (this “Declaration”) shall be binding on the Declarant, its personal representatives, heirs, successors, assigns, employees, agents, lessees, licensees and invitees, and any subsequent person or entity claiming an interest in the Property. However, this Declaration will terminate at the time that Declarant conveys a conservation easement approved by the Trustee Council (defined below) to an authorized holder. Declarant and the Trustee Council shall prepare and record any instruments reasonably necessary to remove any cloud to title on the Property.

COVENANTS, CONDITIONS, AND RESTRICTIONS:

The Property shall be restricted to the following uses:

1. Uses by Rinearson and the Trustee Council (as defined in this section) furthering

natural resource damage assessment restoration objectives. The Portland Harbor Natural Resource Trustee Council consists of the National Oceanic and Atmospheric Administration on behalf of the Department of the Commerce, the United States Fish and Wildlife Service on behalf of the Department of Interior, the Oregon Department of Fish and Wildlife on behalf of the State of Oregon, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe (collectively hereinafter the “Trustee Council”). The term “natural resource” shall be defined pursuant to 42 U.S.C. § 9601 (16).

2. Implementation of the Project consistent with and pursuant to the terms of the Rinearson Natural Area Habitat Development Plan (including Exhibits), incorporated herein by reference and agreed to by the Trustee Council and Rinearson (the “Habitat Development Plan”).
3. Purposes compatible with the preservation and enhancement of native species and their habitats in a manner consistent with the conservation purposes and performance standards set forth in the Habitat Development Plan.

The Property shall not be used for any purposes inconsistent with the Project and the perpetual protection and conservation of the Property as provided in the Habitat Development Plan. All rights accruing from Declarant’s ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited herein and are not inconsistent with the purposes of this Declaration are reserved to Declarant and Declarant’s personal representatives, heirs, successors, and assigns.

Prohibited uses of the Property, insofar as they are not actions specifically identified by the Habitat Development Plan and its Exhibits, include, but are not limited to, the following:

1. Construction, reconstruction or placement of any permanent building or structure.
2. Unseasonable watering; use of fertilizers, biocides, or other agricultural chemicals; incompatible fire protection activities; and any and all other uses which may adversely affect conservation objectives and performance standards set forth in the Habitat Development Plan.
3. Grazing or agricultural activity of any kind.
4. Commercial or industrial uses.
5. Depositing or accumulating soil, trash, ashes, refuse, waste, bio-solids or any other material.
6. Filling, dumping, excavating, draining, dredging, mining, drilling, removing, exploring for or extracting minerals, loam, gravel, soil, rock, sand or other material on or to a depth of 100 feet below the surface of the Property, or granting or authorizing surface entry for any of these purposes.
7. Altering the surface or general topography of the Property, including mining activities or building roads, paving or otherwise covering the Property with concrete, asphalt, or another impervious material.

8. Removing, destroying, or cutting trees, shrubs or other vegetation, except to the extent otherwise consistent with the Habitat Development Plan and as required for: (i) fire breaks; (ii) maintenance of existing foot trails or roads; (iii) prevention or treatment of disease; (iv) utility line clearance; (v) levee easement clearance; or (vi) invasive species management. Except in the event of an emergency, in which case Declarant shall notify Rinearson and the Trustee Council as soon as practicable, Declarant shall provide prior notice and consult with Grantee and the Trustee Council, or their respective designees, prior to cutting or removing trees, shrubs or other vegetation for the purposes authorized in this section.
9. Use of motorized vehicles, including off-road vehicles, except on existing roadways.
10. Transferring any water, mineral, or air rights potentially beneficial to the maintenance or restoration of the biological resources of the Property.
11. Planting, introduction, or dispersal of invasive or exotic plant or animal species.
12. Manipulating, impounding or altering any natural watercourse, body of water or water circulation on the Property, other than those actions set forth under the Habitat Development Plan, and any activities or uses that are or are likely to be detrimental to water quality, including but not limited to degradation or pollution of any surface or sub- surface waters.
13. Permitting a general public right of access to the Property, provided, however, volunteer organizations, education-related groups, news media and similar third parties may be allowed to temporarily enter the Property for the limited purposes of inspection, education or public relations. All rights of access permitted under this section shall be in accordance with and subject to the provisions and restrictions set forth in this Declaration.
14. Hunting.
15. Trapping of native species.

GRANT OF RIGHT OF ENTRY:

The Declarant hereby grants Rinearson, the Trustee Council or either of their designee(s) an irrevocable right and license to enter the Property at reasonable times, subject to giving the Declarant 48-hours' notice (except in cases where Rinearson and/or the Trustee Council or either of their designee(s) determine that immediate entry is required to preserve the conservation values of the Property) to monitor the Declarant's compliance with the terms of this Declaration and for other purposes not inconsistent with this instrument; provided that Rinearson and/or the Trustee Council or its designee(s) shall not unreasonably interfere with the Declarant's authorized use and quiet enjoyment of the Property.

ENFORCEMENT:

The Declarant hereby grants Rinearson, the Trustee Council and either of their designee(s) the right to enforce the terms of this instrument and prevent any activity or use of the Property that is inconsistent with the terms of this instrument or the Habitat Development Plan and, thus, detrimental to the interests of Rinearson, the Trustee Council and either of their designee(s). Further, consistent with the forgoing grant of a right of enforcement, the Declarant hereby

expressly recognizes that Rinearson, the Trustee Council and either of their designee(s) are intended third-party beneficiaries and have standing to enforce the terms of this instrument and the Habitat Development Plan and require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use or activity that is inconsistent with the purposes of this instrument and the Habitat Development Plan. In the event that the Trustee Council disbands during the term of this instrument, the Trustee Council's appointed designee(s), if any, shall enforce the terms of this instrument pursuant to any agreement entered into by members of the Trustee Council which governs the Trustee Council members' process to exercise enforcement rights, including the third-party right of enforcement granted to the Trustee Council and its designee(s) pursuant to this instrument. In the event that the members of the Trustee Council do not enter into a separate agreement governing the Trustee Council's exercise of the third-party rights of enforcement granted herein prior to disbanding or otherwise ceasing to act as a group, each party that comprised the Trustee Council shall be deemed a third-party beneficiary to this instrument and may enforce the terms of this instrument as if such former member or member(s) are named parties to this instrument. Declarant, at the written request of a member of the Trustee Council or its authorized representative, agrees to promptly execute and deliver all such further documents or instruments, and to promptly take and forbear from all such actions, as may be reasonably necessary or appropriate in order more effectively confirm or carry out the provisions of this Declaration and the rights granted herein.

PROPERTY:

It is Declarant's intention that any and all property now or hereafter owned by Declarant, its successors or assigns, comprising a part of the Project Land be subject to this Declaration. Therefore, if it is ever determined that Declarant, its successors or assigns, owns additional property within the Project Land, this Declaration shall automatically and without further action apply to such additional property.

IN WITNESS WHEREOF, the undersigned being duly authorized by the Declarant herein, has unto set its hand this ____ day of _____, 2017.

FOR THE DECLARANT,

CORNELL SAFTENCU

STATE OF OREGON
COUNTY OF _____

This instrument was acknowledged before me on _____ (date) by Cornell Saftencu.

NOTARY PUBLIC

Print Name: _____

My Commission Expires: _____



BOUNDARY DESCRIPTION

A TRACT OF LAND LYING WITHIN A PORTIONS OF LAND FOUND IN DEED 92-30263 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON MAY 19 1990, ALSO WITHIN A PORTION OF LAND FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO WITHIN A PORTION OF LAND FOUND IN QUIT CLAIM DEED 2005-050728 TO CORNELL V SAFTENCU, AS RECORDED IN CLACKAMAS COUNTY ON JUNE 03 2005, ALSO WITHIN A PORTION OF LAND FOUND IN WARRANTY DEED 76-22575 TO THE ROBINWOOD RIVIERE PROPERTY OWNERS' ASSOCIATION, AS RECORDED IN CLACKAMAS COUNTY ON JULY 6 1976, ALSO WITHIN THE LAND FOUND IN BARGAIN & SALE DEED ``99-088195 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY SEPTEMBER 7 1999, ALL SAID LAND SITUATED WITHIN THE P.M. RINEARSON DONATION LAND CLAIM (D.L.C.) AND INDEXED WITHIN THE SOUTH HALF OF SECTION 19 TOWNSHIP 2 SOUTH, RANGE 2 EAST OF CLACKAMAS COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS TO WIT:

COMMENCING AT STONE (STONE NO. 1) SET IN THE DIVISION LINE BETWEEN THE NORTH 1/2 AND SOUTH 1/2 OF THE P.M. RINEARSON D.L.C, AS FOUND BY MELDRUM IN 1908, SEE BLUE FIELD BOOK FILE 1905-1908 BOOK 21 PAGES 111-118 AND AS SHOWN ON SURVEY CS-7476 BY BERTELL MASON JR, FROM WHICH BEARS ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST AT A DISTANCE OF 1341.93 FEET, (CS-7476 SOUTH 64°00'00" WEST - 1341.42 FEET) A STONE (STONE NO. 2), ALSO FOUND BY MELDRUM, SAID SECOND STONE IS REFERENCED BY; A 1-1/4" GAS PIPE BEARING SOUTH 42°24'46" EAST AT A DISTANCE OF 8.91 FEET, (CS-7476 SOUTH 40°30' WEST - 9.08 FEET), A 1/2" REBAR BEARING SOUTH 67°30'24" WEST AT A DISTANCE OF 8.91 FEET, A 5/8" IRON ROD BEARING NORTH 54°04'56" WEST AT A DISTANCE OF 2.64 FEET,

THENCE, FROM SAID STONE NO. 1 SOUTH 64°04'44" WEST ALONG SAID DIVISION LINE FOR A DISTANCE OF 266.39 FEET TO THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION;

THENCE, CONTINUING ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST FOR A DISTANCE OF 150.90 FEET;

THENCE, DEPARTING SAID DIVISION LINE AND RUNNING 25 FEET OFFSET AND PARALLEL TO THE SOUTHERLY LINE OF LOT 12 THROUGH LOT 20 OF



THE PLAT OF ROBINWOOD RIVIERE AS RECORDED IN PLAT BOOK 63 AT PAGE 30 (PLAT NO. 1943), RECORDED AT CLACKAMAS COUNTY, THE FOLLOWING COURSES AND DISTANCES;

NORTH 69°45'26" WEST FOR A DISTANCE OF 162.92 FEET;
NORTH 88°29'26" WEST FOR A DISTANCE OF 553.56 FEET;

THENCE, DEPARTING SAID OFFSET LINE NORTH 01°30'34" EAST FOR A DISTANCE OF 25.00 FEET TO THE SOUTHERLY CORNER COMMON TO LOT 20 AND LOT 21 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, SOUTH 58°42'42" WEST FOR A DISTANCE OF 121.53 FEET TO A POINT THAT BEARS SOUTH 05°38'35" WEST A DISTANCE 25 FEET FROM THE SOUTHEASTERLY CORNER OF LOT 22 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, NORTH 80°09'46" WEST FOR A DISTANCE OF 146.57 FEET TO A POINT ON THE EASTERLY LINE OF THAT CERTAIN LANDS OF CORNELL V. SAFTENCU, BEING THE SOUTHEASTERLY CORNER OF PARCEL 1 AND THE NORTHEASTERLY CORNER OF PARCEL 2, AS RECORDED BY DOCUMENT NUMBER 2005-050728 RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE LINE COMMON OF PARCEL 1 AND PARCEL 2 OF SAID CORNELL V. SAFTENCU LANDS NORTH 46°20'01" WEST FOR A DISTANCE OF 89.88 FEET TO A POINT 10 FOOT OFFSET SOUTHEASTERLY FROM THE EASTERLY LINE OF LOT A OF THE PLAT OF RIVER COVE AS RECORDED IN PLAT BOOK 29 AT PAGE 10 (PLAT NO. 801), RECORDS OF CLACKAMAS COUNTY;

THENCE, 10 FEET PARALLEL AND OFFSET FROM THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28' 20" WEST FOR A DISTANCE OF 73.40 FEET TO A POINT ON THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LANDS, (DESCRIBED IN SAID DEED AS THE EASTERLY BANK OF THE WILLAMETTE RIVER AT MEAN HIGH WATER STAGE);

THENCE, ALONG THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LAND NORTH 25°48'00" WEST FOR A DISTANCE OF 10.69 FEET TO POINT ON THE SOUTHERLY PROJECTION OF THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE;

THENCE, ALONG THE SOUTHERLY PROJECTION OF THE EASTERLY LINE LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28'20" WEST FOR A



DISTANCE OF 53.35 FEET TO THE APPROXIMATE CENTERLINE AND
EASTERLY TERMINUS OF MELDRUM'S SLOUGH;

THENCE, ALONG THE APPROXIMATE CENTERLINE OF MELDRUM'S SLOUGH
THE FOLLOWING COURSES AND DISTANCES;

NORTH 53°21'33" WEST FOR A DISTANCE OF 132.73 FEET,
NORTH 73°31'11" WEST FOR A DISTANCE OF 107.14 FEET,
NORTH 84°32'58" WEST FOR A DISTANCE OF 56.87 FEET ,
NORTH 73°44'04" WEST FOR A DISTANCE OF 77.47 FEET,
SOUTH 89°26'35" WEST FOR A DISTANCE OF 89.18 FEET TO POINT ON
THE EASTERLY BANK OF THE WILLAMETTE RIVER AT ORDINARY LOW
WATER;

THENCE, ALONG THE EASTERLY BANK OF SAID WILLAMETTE RIVER AT
ORDINARY LOW WATER, THE FOLLOWING COURSES AND DISTANCES,
SOUTH 15°14'52" WEST FOR A DISTANCE OF 61.17 FEET,
SOUTH 09°25'35" EAST FOR A DISTANCE OF 81.45 FEET,
SOUTH 41°38'19" EAST FOR A DISTANCE OF 241.44 FEET TO THE
APPROXIMATE BEGINNING OF THAT PORTION OF THE NORTHEASTERLY
BANK KNOWN AS MELDRUM'S BAR PUBLIC BOATWAY ACCESS CHANNEL,
AT ORDINARY LOW WATER;

THENCE, ALONG THE NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AT ORDINARY LOW WATER, THE
FOLLOW COURSES AND DISTANCES,

SOUTH 45°40'44" EAST FOR A DISTANCE OF 89.19 FEET,
SOUTH 24°57'57" EAST FOR A DISTANCE OF 118.54 FEET,
SOUTH 36°50'29" EAST FOR A DISTANCE OF 142.92 FEET,
SOUTH 79°11'10" EAST FOR A DISTANCE OF 55.29 FEET,
SOUTH 35°30'55" EAST FOR A DISTANCE OF 84.31 FEET,
SOUTH 02°28'40" EAST FOR A DISTANCE OF 98.51 FEET,
SOUTH 36°06'16" EAST FOR A DISTANCE OF 375.04 FEET,

THENCE, DEPARTING SAID NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AND ALONG THE FOLLOWING
COURSES AND DISTANCES,

NORTH 54°00'05" EAST FOR A DISTANCE OF 250.71 FEET,
SOUTH 85°36'22" EAST FOR A DISTANCE OF 162.08 FEET,
SOUTH 66°00'51" EAST FOR A DISTANCE OF 159.66 FEET,
NORTH 73°39'32" EAST FOR A DISTANCE OF 295.47 FEET,
NORTH 60°17'53" EAST FOR A DISTANCE OF 151.38 FEET,
NORTH 79°07'45" EAST FOR A DISTANCE OF 166.42 FEET,



SOUTH 24°57'05" EAST FOR A DISTANCE OF 43.59 FEET TO THE SOUTHERLY LINE OF LAND DESCRIBED IN WARRANTY DEED 74-6136 TO STATE OF OREGON, AS RECORD IN CLACKAMAS COUNTY ON MARCH 14, 1974;

THENCE ALONG SOUTHERLY LINE OF SAID WARRANTY DEED 74-6136, NORTH 65°02'55" EAST FOR AS DISTANCE OF 300.54 FEET TO THE SOUTHWESTERLY CORNER OF LANDS FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE, OREGON AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO THE SOUTHWESTERLY CORNER OF TRACT B PLAT OF RINEARSON CREEK AS RECORD IN PLAT BOOK 136 AT PAGE 25 (PLAT NO. 4163), RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE SOUTHERLY LINE OF LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK, NORTH 63°44'30' EAST FOR A DISTANCE 199.94 TO A POINT 10 FOOT OFFSET FROM THE EASTERLY LINE OF SAID TRACT B;

THENCE, NORTH 25°52'21" WEST OFFSET 10 FEET AND PARALLEL TO THE EASTERLY LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK FOR A DISTANCE OF 305.37 FEET TO A POINT ON THE SOUTHERLY LINE OF LOT 11 OF SAID PLAT OF RINEARSON CREEK;

THENCE ALONG THE SOUTHERLY LINE OF LOT 11, 10 AND 9 OF SAID PLAT OF RINEARSON CREEK;
NORTH 86°24'20" WEST FOR A DISTANCE OF 58.82 FEET,
NORTH 66°44'30" WEST FOR A DISTANCE OF 44.13 FEET,
SOUTH 86°24'24" WEST FOR A DISTANCE OF 58.33 FEET TO THE SOUTHWESTERLY CORNER OF LOT 9 OF SAID PLAT OF RINEARSON CREEK;

THENCE, DEPARTING SAID PLAT OF RINEARSON CREEK SOUTH 63°55'33" WEST FOR A DISTANCE OF 10 FEET AND OFFSET FROM SAID PLAT OF RINEARSON CREEK;

THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO THE WESTERLY LINE OF LOT 9, 8, 7, 6, 5, 4 OF SAID PLAT OF RINEARSON CREEK NORTH 26°04'27" WEST FOR A DISTANCE OF 220.49 FEET TO A POINT 10 FOOT OFFSET FROM THE SOUTHERLY LINE OF THE LAND OF NANCY JO TOWLE AND CARL E. POSTON AS RECORDED BY STATUTORY BARGAIN AND SALE DEED DOCUMENT NUMBER 2010-047066 RECORDS OF CLACKAMAS COUNTY;



THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO SAID DEED SOUTH 64°20'07" WEST FOR A DISTANCE OF 130.10 FEET;

THENCE, CONTINUING AT 10 FOOT OFFSET AND PARALLEL TO SAID DEED NORTH 26°07'36" WEST FOR A DISTANCE OF 124.88 FEET TO POINT ON SAID DIVISION LINE AND THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION, SAID DESCRIPTION ENCLOSES 33.156 ACRES, MORE OR LESS.

SUBJECT TO EASEMENTS AND ENCUMBRANCES OF RECORD, IF ANY.



Appendix G-3a- RRPOA Interim Deed Restriction
DECLARATION OF COVENANTS, CONDITIONS, AND RESTRICTIONS
AND GRANT OF IRREVOCABLE RIGHT OF ENTRY

Property Address: N/A
Tax Parcel IDs: 01606925
Deed Reference(s): 76-22575
County Recording No. _____

ROBINWOOD RIVIERE PROPERTY OWNERS' ASSOCIATION, an Oregon nonprofit corporation (hereafter, the "DECLARANT"), is the fee simple owner of certain property located in Clackamas County, Oregon, identified as "Lot 40 Robinwood Riviere (Common Area)," which property is more particularly described in that certain Warranty Deed made by Lynnwood Lumber Company, a Washington corporation (dba Lynnwood Enterprises), on July 2, 1976 and recorded in the Recorder's Office for Clackamas County, Oregon as Instrument Number 76-22575 (hereafter the "POA Land").

Rinearson Natural Area, LLC, an Oregon limited liability company ("Rinearson"), intends to implement a natural resource damage assessment restoration project known as the Rinearson Natural Area Restoration Project (the "Project") on certain property located in the City of Gladstone and Clackamas County, Oregon containing approximately 33.156 acres, including a portion of the POA Land, and being more particularly shown on Attachment "A-1" and described on Attachment "A-2" (the "Project Land"). Attachments "A-1" and "A-2" are incorporated herein by reference. The portion of the POA Land included in the Project is hereafter referred to as the "Property". Rinearson and Declarant have entered into an agreement by which Rinearson has the sole and exclusive right to conduct all activities on the Property necessary to complete the Project (the "Project Agreement"). Pursuant to the Project Agreement, Declarant has agreed to restrict the Property in order to protect the completed Project in perpetuity.

Therefore, in accordance with the Project Agreement, Declarant hereby restricts, as set forth below, the uses to which the Property may be put. The Declarant declares that these restrictions shall constitute covenants that run with the land, as provided by applicable law, and said restrictions shall continue in perpetuity or for the maximum period allowed by law. The restrictions on the Property's use under this Declaration of Covenants, Conditions and Restrictions and Grant of Irrevocable Right of Entry (this "Declaration") shall be binding on the Declarant, its personal representatives, heirs, successors, assigns, employees, agents, lessees, licensees and invitees, and any subsequent person or entity claiming an interest in the Property. However, this Declaration will terminate at the time that Declarant conveys a conservation easement approved by the Trustee Council (defined below) to an authorized holder. Declarant and the Trustee Council shall prepare and record any instruments reasonably necessary to remove any cloud to title on the Property.

COVENANTS, CONDITIONS, AND RESTRICTIONS:

The Property shall be restricted to the following uses:

1. Uses by Rinearson and the Trustee Council (as defined in this section) furthering natural resource damage assessment restoration objectives. The Portland Harbor Natural Resource Trustee Council consists of the National Oceanic and Atmospheric Administration on behalf of the Department of the Commerce, the United States Fish and Wildlife Service on behalf of the Department of Interior, the Oregon Department of Fish and Wildlife on behalf of the State of Oregon, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe (collectively hereinafter the “Trustee Council”). The term “natural resource” shall be defined pursuant to 42 U.S.C. § 9601 (16).
2. Implementation of the Project consistent with and pursuant to the terms of the Rinearson Natural Area Habitat Development Plan (including Exhibits), incorporated herein by reference and agreed to by the Trustee Council and Rinearson (the “Habitat Development Plan”).
3. Purposes compatible with the preservation and enhancement of native species and their habitats in a manner consistent with the conservation purposes and performance standards set forth in the Habitat Development Plan.
4. Those uses and activities described in the attached Attachment “B”. Attachment “B” is incorporated herein by reference.

The Property shall not be used for any purposes inconsistent with the Project and the perpetual protection and conservation of the Property as provided in the Habitat Development Plan. All rights accruing from Declarant’s ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited herein and are not inconsistent with the purposes of this Declaration are reserved to Declarant and Declarant’s personal representatives, heirs, successors, and assigns.

Prohibited uses of the Property, insofar as they are not actions specifically identified by the Habitat Development Plan and its Exhibits, include, but are not limited to, the following:

1. Construction, reconstruction or placement of any permanent building or structure.
2. Unseasonable watering; use of fertilizers, biocides, or other agricultural chemicals; incompatible fire protection activities; and any and all other uses which may adversely affect conservation objectives and performance standards set forth in the Habitat Development Plan.
3. Grazing or agricultural activity of any kind.
4. Commercial or industrial uses.
5. Depositing or accumulating soil, trash, ashes, refuse, waste, bio-solids or any other material.
6. Filling, dumping, excavating, draining, dredging, mining, drilling, removing, exploring for or extracting minerals, loam, gravel, soil, rock, sand or other material on or to a depth of 100 feet below the surface of the Property, or granting or authorizing

- surface entry for any of these purposes.
7. Altering the surface or general topography of the Property, including mining activities or building roads, paving or otherwise covering the Property with concrete, asphalt, or another impervious material.
 8. Removing, destroying, or cutting trees, shrubs or other vegetation, except to the extent specifically permitted in Attachment "B", or except to the extent otherwise consistent with the Habitat Development Plan and as required for: (i) fire breaks; (ii) maintenance of existing foot trails or roads; (iii) prevention or treatment of disease; (iv) utility line clearance; (v) levee easement clearance; (vi) invasive species management; or (vii) prevention or remediation of vegetation that creates a substantial risk of bodily injury or property damage. Except (i) for activities specifically permitted in Attachment "B" or authorized under the Habitat Development Plan; or (ii) in the event of an emergency, in which case Declarant shall notify Rinearson and the Trustee Council as soon as practicable; Declarant shall provide prior notice and consult with Rinearson and the Trustee Council prior to cutting or removing trees, shrubs or other vegetation for the purposes authorized in this section.
 9. Use of motorized vehicles, including off-road vehicles, except on existing roadways.
 10. Transferring any water, mineral, or air rights potentially beneficial to the maintenance or restoration of the biological resources of the Property.
 11. Planting, introduction, or dispersal of invasive or exotic plant or animal species.
 12. Manipulating, impounding or altering any natural watercourse, body of water or water circulation on the Property, other than those actions set forth under the Habitat Development Plan, and any activities or uses that are or are likely to be detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters.
 13. Permitting a general public right of access to the Property, provided, however, volunteer organizations, education-related groups, news media and similar third parties may be allowed to temporarily enter the Property for the limited purposes of inspection, education or public relations. All rights of access permitted under this section shall be taken in accordance with and subject to the provisions and restrictions set forth in this Declaration.
 14. Hunting.
 15. Trapping of native species.

GRANT OF RIGHT OF ENTRY:

The Declarant hereby grants Rinearson, the Trustee Council or either of their designee(s) an irrevocable right and license to enter the Property at reasonable times, subject to giving the Declarant 48-hours' notice (except in cases where Rinearson and/or the Trustee Council or either of their designee(s) determine that immediate entry is required to preserve the conservation values of the Property) to monitor the Declarant's compliance with the terms of this Declaration and for other purposes not inconsistent with this instrument; provided that Rinearson and/or the

Trustee Council or its designee(s) shall not unreasonably interfere with the Declarant's authorized use and quiet enjoyment of the Property.

ENFORCEMENT:

The Declarant hereby grants Rinearson, the Trustee Council and either of their designee(s) the right to enforce the terms of this instrument and prevent any activity or use of the Property that is inconsistent with the terms of this instrument or the Habitat Development Plan and, thus, detrimental to the interests of Rinearson, the Trustee Council and either of their designee(s). Further, consistent with the forgoing grant of a right of enforcement, the Declarant hereby expressly recognizes that Rinearson, the Trustee Council and either of their designee(s) are intended third-party beneficiaries and have standing to enforce the terms of this instrument and the Habitat Development Plan and require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use or activity that is inconsistent with the purposes of this instrument and the Habitat Development Plan. In the event that the Trustee Council disbands during the term of this instrument, the Trustee Council's appointed designee(s), if any, shall enforce the terms of this instrument pursuant to any agreement entered into by members of the Trustee Council which governs the Trustee Council members' process to exercise enforcement rights, including the third-party right of enforcement granted to the Trustee Council and its designee(s) pursuant to this instrument. In the event that the members of the Trustee Council do not enter into a separate agreement governing the Trustee Council's exercise of the third-party rights of enforcement granted herein prior to disbanding or otherwise ceasing to act as a group, each party that comprised the Trustee Council shall be deemed a third-party beneficiary to this instrument and may enforce the terms of this instrument as if such former member or member(s) are named parties to this instrument. Declarant, at the written request of a member of the Trustee Council or its authorized representative, agrees to promptly execute and deliver all such further documents or instruments, and to promptly take and forbear from all such actions, as may be reasonably necessary or appropriate in order more effectively confirm or carry out the provisions of this Declaration and the rights granted herein.

PROPERTY:

It is Declarant's intention that any and all property now or hereafter owned by Declarant, its successors or assigns, comprising a part of the Project Land be subject to this Declaration. Therefore, if it is ever determined that Declarant, its successors or assigns, owns additional property within the Project, this Declaration shall automatically and without further action apply to such additional property.

Declarant specifically acknowledges and confirms that the Project is consistent with, and does not trigger the reversionary right set forth in, that certain Bargain & Sale Deed from Declarant to the City of Gladstone, an Oregon municipal corporation, dated September 1, 1999 and recorded in the Recorder's Office for Clackamas County, Oregon as Instrument Number 99-088195. If the reversionary right set forth in such Bargain & Sale Deed is triggered, Declarant confirms that the restrictions set forth in this Declaration shall automatically and without further action apply to the property described in such Bargain & Sale Deed.

IN WITNESS WHEREOF, the undersigned being duly authorized by the Declarant herein, has unto set its hand this _____ day of ___, 2017.

FOR THE DECLARANT,
ROBINWOOD RIVIERE PROPERTY OWNERS ASSOCIATION

Name: _____
Title: _____

STATE OF OREGON
COUNTY OF _____

This instrument was acknowledged before me on _____ (date) by _____ as _____ on behalf of the Association.

NOTARY PUBLIC

Print Name: _____

My Commission Expires: _____

VICINITY MAP

NO SCALE

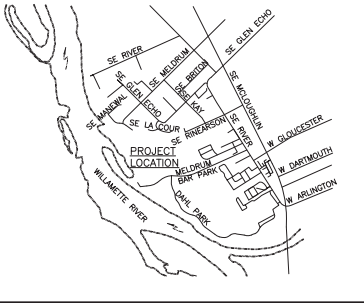


EXHIBIT "LIMITS OF IMPROVEMENTS"

FOR
RINEARSON NATURAL RESOURCE AREA
SITUATED IN SOUTH HALF OF SECTION 19
TOWNSHIP 2 SOUTH, RANGE 2 EAST, WILLAMETTE MERIDIAN,
CITY OF GLADSTONE, CLACKAMAS COUNTY, STATE OF OREGON.
NO CORNERS SET WITH THIS MAPPING.

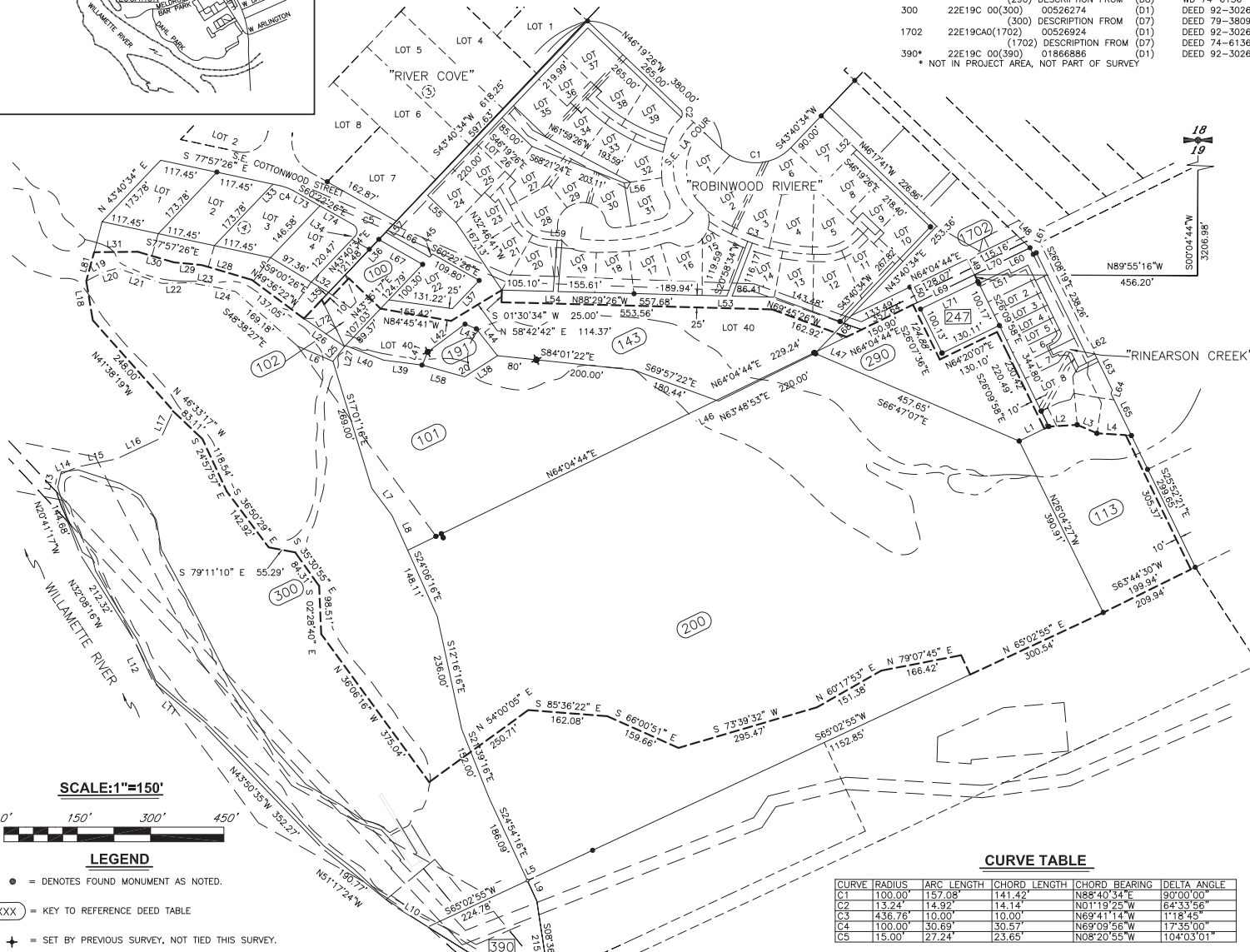
REFERENCE DEEDS

SURVEY	TAX LOT	ALL IN CLACKAMAS COUNTY DEED RECORDS	GRANTEE (OWNER)
		PARCEL# REF. # DEED	
101	22E19CA00(101)	00526354 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(101)	DESCRIPTION FROM (D2)	WD 72-37511 STATE OF OREGON, DOT
102 & 100	22E19CA00(102)	00526363 (D3)	QCD 2005-050728 CORNELL V SAPTENON
113	22E19DB00(113)	05019648 (D4)	DED 2007-092290 CITY OF GLADSTONE, OR
143	22E19CA00(143)	01606925 (D5)	WD 76-22575 EXP BAS DEED 99-088195
191	22E19CA00(191)	05000355 (D6)	BAS DEED 99-088195 CITY OF GLADSTONE, OR
200	22E19C 00(200)	00526256 (D7)	DEED 92-30263 CITY OF GLADSTONE, OR
	(200)	DESCRIPTION FROM (D1)	DEED 74-6136 ST OF OR DOT-HWY DIV
290	22E19C 00(290)	00526265 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(290)	DESCRIPTION FROM (D8)	WD 74-6136 STATE OF OREGON, DOT
300	22E19C 00(300)	00526274 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(300)	DESCRIPTION FROM (D7)	DEED 79-3809 ST OF OR DOT-HWY DIV
1702	22E19CA00(1702)	00526924 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(1702)	DESCRIPTION FROM (D7)	DEED 74-6136 ST OF OR DOT-HWY DIV
390*	22E19C 00(390)	01866886 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR

* NOT IN PROJECT AREA, NOT PART OF SURVEY

LINE TABLE

LINE	BEARING	DISTANCE
L1	N63°55'33"E	87.25'
L2	N89°24'24"E	58.33'
L3	S66°44'30"E	44.13'
L4	S66°24'20"E	70.31'
L5	S65°02'56"W	16.26'
L6	S65°31'16"E	80.00'
L7	S36°36'16"E	70.00'
L8	S45°08'15"E	77.89'
L9	S24°54'16"E	45.91'
L10	N58°19'55"W	79.59'
L11	N49°57'42"W	132.22'
L12	N24°12'08"W	91.96'
L13	N12°25'58"E	25.00'
L14	N66°56'28"E	44.94'
L15	N78°14'00"E	81.88'
L16	N64°53'48"E	100.15'
L17	N24°14'34"E	60.99'
L18	N69°25'55"W	81.45'
L19	N62°19'00"E	38.55'
L20	N74°09'19"E	30.50'
L21	S71°09'55"E	96.46'
L22	N88°30'46"E	95.81'
L23	S80°14'48"E	57.71'
L24	N77°39'43"W	39.15'
L25	N44°55'38"E	66.87'
L26	S24°29'08"W	100.98'
L27	N43°35'17"E	2.66'
L28	S78°51'11"E	107.14'
L29	N64°32'08"W	46.87'
L30	S73°44'04"E	77.47'
L31	N89°26'35"E	89.18'
L32	N69°09'22"E	80.00'
L33	S77°57'26"E	14.63'
L34	S43°40'55"W	9.28'
L35	N43°40'55"E	9.28'
L36	N64°04'33"E	28.14'
L37	S43°40'34"W	79.93'
L38	N57°18'53"E	80.00'
L39	N82°28'22"E	80.00'
L40	S69°05'37"E	83.56'
L41	N22°44'44"E	29.25'
L42	N61°12'08"E	95.10'
L43	S67°38'13"E	24.97'
L44	S38°10'28"E	70.30'
L45	N43°40'34"E	8.98'
L46	S69°29'22"E	4.56'
L47	N43°40'35"E	6.49'
L48	N46°19'26"W	37.53'
L49	S59°18'14"E	35.23'
L50	N25°53'03"W	35.89'
L51	S26°04'28"E	15.34'
L52	S43°40'34"W	10.00'
L53	N88°29'28"W	10.61'
L54	N88°29'28"W	10.01'
L55	N46°19'26"W	80.00'
L56	N82°12'56"E	61.20'
L57	N43°40'34"E	31.30'
L58	S74°28'52"E	90.00'
L59	N57°18'53"E	90.00'
L60	S26°04'27"E	15.00'
L61	N63°55'31"E	7.15'
L62	N63°41'18"E	16.12'
L63	S26°02'48"E	82.00'
L64	S18°40'04"W	8.30'
L65	S26°01'13"E	95.08'
L66	S60°22'26"E	103.03'
L67	S60°15'47"E	102.98'
L68	N43°40'34"E	100.90'
L69	N43°40'34"E	130.15'
L70	N64°04'44"E	126.18'
L71	S64°19'08"W	130.20'
L72	S25°48'00"E	106.73'
L73	S60°22'26"E	61.20'
L74	S60°22'26"E	78.70'
L75	S60°22'26"E	41.25'
L76	S59°42'58"E	106.28'
L77	N26°04'27"W	20.34'
L78	N46°26'22"E	99.79'
L79	S60°24'45"E	102.68'



SCALE: 1"=150'



LEGEND

- = DENOTES FOUND MONUMENT AS NOTED.
- XXX = KEY TO REFERENCE DEED TABLE
- + = SET BY PREVIOUS SURVEY, NOT TIED THIS SURVEY.

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	100.00'	157.08'	141.42'	N88°40'34"E	90°00'00"
C2	13.24'	14.92'	14.14'	N01°19'25"W	64°33'56"
C3	436.76'	10.00'	10.00'	N69°11'14"W	1°18'45"
C4	100.00'	30.69'	30.53'	N69°09'56"W	17°35'00"
C5	15.00'	27.24'	23.65'	N08°20'55"W	104°03'01"

REGISTERED PROFESSIONAL LAND SURVEYOR

OREGON
JULY 27, 1988
GREGORY D SPURLOCK
2307
EXPIRES: 06/30/2016

STATEWIDE LAND SURVEYING INC.
WWW.STATEWIDESURVEYING.COM
E.SURVEY@STATEWIDESURVEYING.COM

SWLS

DRAWN DATE 500 NW 20TH ST #101
G.D.S. 8/7/2015 GRESHAM, OR 97030
CHECKED DATE (F) 503.665.7988
G.D.S. 9-29-15 (D) 503.665.7777

SCALE SHEET PROJECT NO.
1" = 150' 1 OF 1 2015-42

C:\Statewide Surveys\2015\2015-42\Drawing\2015-42\RESRCS-BNRY (Ang) SHEET 2-HEKIS-INDRY. 9/29/2015 2:56:07 PM

FINAL HDP - December 3, 2018



BOUNDARY DESCRIPTION

A TRACT OF LAND LYING WITHIN A PORTIONS OF LAND FOUND IN DEED 92-30263 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON MAY 19 1990, ALSO WITHIN A PORTION OF LAND FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO WITHIN A PORTION OF LAND FOUND IN QUIT CLAIM DEED 2005-050728 TO CORNELL V SAFTENCU, AS RECORDED IN CLACKAMAS COUNTY ON JUNE 03 2005, ALSO WITHIN A PORTION OF LAND FOUND IN WARRANTY DEED 76-22575 TO THE ROBINWOOD RIVIERE PROPERTY OWNERS' ASSOCIATION, AS RECORDED IN CLACKAMAS COUNTY ON JULY 6 1976, ALSO WITHIN THE LAND FOUND IN BARGAIN & SALE DEED ``99-088195 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY SEPTEMBER 7 1999, ALL SAID LAND SITUATED WITHIN THE P.M. RINEARSON DONATION LAND CLAIM (D.L.C.) AND INDEXED WITHIN THE SOUTH HALF OF SECTION 19 TOWNSHIP 2 SOUTH, RANGE 2 EAST OF CLACKAMAS COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS TO WIT:

COMMENCING AT STONE (STONE NO. 1) SET IN THE DIVISION LINE BETWEEN THE NORTH 1/2 AND SOUTH 1/2 OF THE P.M. RINEARSON D.L.C, AS FOUND BY MELDRUM IN 1908, SEE BLUE FIELD BOOK FILE 1905-1908 BOOK 21 PAGES 111-118 AND AS SHOWN ON SURVEY CS-7476 BY BERTELL MASON JR, FROM WHICH BEARS ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST AT A DISTANCE OF 1341.93 FEET, (CS-7476 SOUTH 64°00'00" WEST - 1341.42 FEET) A STONE (STONE NO. 2), ALSO FOUND BY MELDRUM, SAID SECOND STONE IS REFERENCED BY; A 1-1/4" GAS PIPE BEARING SOUTH 42°24'46" EAST AT A DISTANCE OF 8.91 FEET, (CS-7476 SOUTH 40°30' WEST - 9.08 FEET), A 1/2" REBAR BEARING SOUTH 67°30'24" WEST AT A DISTANCE OF 8.91 FEET, A 5/8" IRON ROD BEARING NORTH 54°04'56" WEST AT A DISTANCE OF 2.64 FEET,

THENCE, FROM SAID STONE NO. 1 SOUTH 64°04'44" WEST ALONG SAID DIVISION LINE FOR A DISTANCE OF 266.39 FEET TO THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION;

THENCE, CONTINUING ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST FOR A DISTANCE OF 150.90 FEET;

THENCE, DEPARTING SAID DIVISION LINE AND RUNNING 25 FEET OFFSET AND PARALLEL TO THE SOUTHERLY LINE OF LOT 12 THROUGH LOT 20 OF



THE PLAT OF ROBINWOOD RIVIERE AS RECORDED IN PLAT BOOK 63 AT PAGE 30 (PLAT NO. 1943), RECORDED AT CLACKAMAS COUNTY, THE FOLLOWING COURSES AND DISTANCES;

NORTH 69°45'26" WEST FOR A DISTANCE OF 162.92 FEET;
NORTH 88°29'26" WEST FOR A DISTANCE OF 553.56 FEET;

THENCE, DEPARTING SAID OFFSET LINE NORTH 01°30'34" EAST FOR A DISTANCE OF 25.00 FEET TO THE SOUTHERLY CORNER COMMON TO LOT 20 AND LOT 21 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, SOUTH 58°42'42" WEST FOR A DISTANCE OF 121.53 FEET TO A POINT THAT BEARS SOUTH 05°38'35" WEST A DISTANCE 25 FEET FROM THE SOUTHEASTERLY CORNER OF LOT 22 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, NORTH 80°09'46" WEST FOR A DISTANCE OF 146.57 FEET TO A POINT ON THE EASTERLY LINE OF THAT CERTAIN LANDS OF CORNELL V. SAFTENCU, BEING THE SOUTHEASTERLY CORNER OF PARCEL 1 AND THE NORTHEASTERLY CORNER OF PARCEL 2, AS RECORDED BY DOCUMENT NUMBER 2005-050728 RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE LINE COMMON OF PARCEL 1 AND PARCEL 2 OF SAID CORNELL V. SAFTENCU LANDS NORTH 46°20'01" WEST FOR A DISTANCE OF 89.88 FEET TO A POINT 10 FOOT OFFSET SOUTHEASTERLY FROM THE EASTERLY LINE OF LOT A OF THE PLAT OF RIVER COVE AS RECORDED IN PLAT BOOK 29 AT PAGE 10 (PLAT NO. 801), RECORDS OF CLACKAMAS COUNTY;

THENCE, 10 FEET PARALLEL AND OFFSET FROM THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28' 20" WEST FOR A DISTANCE OF 73.40 FEET TO A POINT ON THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LANDS, (DESCRIBED IN SAID DEED AS THE EASTERLY BANK OF THE WILLAMETTE RIVER AT MEAN HIGH WATER STAGE);

THENCE, ALONG THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LAND NORTH 25°48'00" WEST FOR A DISTANCE OF 10.69 FEET TO POINT ON THE SOUTHERLY PROJECTION OF THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE;

THENCE, ALONG THE SOUTHERLY PROJECTION OF THE EASTERLY LINE LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28'20" WEST FOR A



DISTANCE OF 53.35 FEET TO THE APPROXIMATE CENTERLINE AND
EASTERLY TERMINUS OF MELDRUM'S SLOUGH;

THENCE, ALONG THE APPROXIMATE CENTERLINE OF MELDRUM'S SLOUGH
THE FOLLOWING COURSES AND DISTANCES;

NORTH 53°21'33" WEST FOR A DISTANCE OF 132.73 FEET,
NORTH 73°31'11" WEST FOR A DISTANCE OF 107.14 FEET,
NORTH 84°32'58" WEST FOR A DISTANCE OF 56.87 FEET ,
NORTH 73°44'04" WEST FOR A DISTANCE OF 77.47 FEET,
SOUTH 89°26'35" WEST FOR A DISTANCE OF 89.18 FEET TO POINT ON
THE EASTERLY BANK OF THE WILLAMETTE RIVER AT ORDINARY LOW
WATER;

THENCE, ALONG THE EASTERLY BANK OF SAID WILLAMETTE RIVER AT
ORDINARY LOW WATER, THE FOLLOWING COURSES AND DISTANCES,
SOUTH 15°14'52" WEST FOR A DISTANCE OF 61.17 FEET,
SOUTH 09°25'35" EAST FOR A DISTANCE OF 81.45 FEET,
SOUTH 41°38'19" EAST FOR A DISTANCE OF 241.44 FEET TO THE
APPROXIMATE BEGINNING OF THAT PORTION OF THE NORTHEASTERLY
BANK KNOWN AS MELDRUM'S BAR PUBLIC BOATWAY ACCESS CHANNEL,
AT ORDINARY LOW WATER;

THENCE, ALONG THE NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AT ORDINARY LOW WATER, THE
FOLLOW COURSES AND DISTANCES,

SOUTH 45°40'44" EAST FOR A DISTANCE OF 89.19 FEET,
SOUTH 24°57'57" EAST FOR A DISTANCE OF 118.54 FEET,
SOUTH 36°50'29" EAST FOR A DISTANCE OF 142.92 FEET,
SOUTH 79°11'10" EAST FOR A DISTANCE OF 55.29 FEET,
SOUTH 35°30'55" EAST FOR A DISTANCE OF 84.31 FEET,
SOUTH 02°28'40" EAST FOR A DISTANCE OF 98.51 FEET,
SOUTH 36°06'16" EAST FOR A DISTANCE OF 375.04 FEET,

THENCE, DEPARTING SAID NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AND ALONG THE FOLLOWING
COURSES AND DISTANCES,

NORTH 54°00'05" EAST FOR A DISTANCE OF 250.71 FEET,
SOUTH 85°36'22" EAST FOR A DISTANCE OF 162.08 FEET,
SOUTH 66°00'51" EAST FOR A DISTANCE OF 159.66 FEET,
NORTH 73°39'32" EAST FOR A DISTANCE OF 295.47 FEET,
NORTH 60°17'53" EAST FOR A DISTANCE OF 151.38 FEET,
NORTH 79°07'45" EAST FOR A DISTANCE OF 166.42 FEET,



SOUTH 24°57'05" EAST FOR A DISTANCE OF 43.59 FEET TO THE SOUTHERLY LINE OF LAND DESCRIBED IN WARRANTY DEED 74-6136 TO STATE OF OREGON, AS RECORD IN CLACKAMAS COUNTY ON MARCH 14, 1974;

THENCE ALONG SOUTHERLY LINE OF SAID WARRANTY DEED 74-6136, NORTH 65°02'55" EAST FOR AS DISTANCE OF 300.54 FEET TO THE SOUTHWESTERLY CORNER OF LANDS FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE, OREGON AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO THE SOUTHWESTERLY CORNER OF TRACT B PLAT OF RINEARSON CREEK AS RECORD IN PLAT BOOK 136 AT PAGE 25 (PLAT NO. 4163), RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE SOUTHERLY LINE OF LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK, NORTH 63°44'30' EAST FOR A DISTANCE 199.94 TO A POINT 10 FOOT OFFSET FROM THE EASTERLY LINE OF SAID TRACT B;

THENCE, NORTH 25°52'21" WEST OFFSET 10 FEET AND PARALLEL TO THE EASTERLY LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK FOR A DISTANCE OF 305.37 FEET TO A POINT ON THE SOUTHERLY LINE OF LOT 11 OF SAID PLAT OF RINEARSON CREEK;

THENCE ALONG THE SOUTHERLY LINE OF LOT 11, 10 AND 9 OF SAID PLAT OF RINEARSON CREEK;
NORTH 86°24'20" WEST FOR A DISTANCE OF 58.82 FEET,
NORTH 66°44'30" WEST FOR A DISTANCE OF 44.13 FEET,
SOUTH 86°24'24" WEST FOR A DISTANCE OF 58.33 FEET TO THE SOUTHWESTERLY CORNER OF LOT 9 OF SAID PLAT OF RINEARSON CREEK;

THENCE, DEPARTING SAID PLAT OF RINEARSON CREEK SOUTH 63°55'33" WEST FOR A DISTANCE OF 10 FEET AND OFFSET FROM SAID PLAT OF RINEARSON CREEK;

THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO THE WESTERLY LINE OF LOT 9, 8, 7, 6, 5, 4 OF SAID PLAT OF RINEARSON CREEK NORTH 26°04'27" WEST FOR A DISTANCE OF 220.49 FEET TO A POINT 10 FOOT OFFSET FROM THE SOUTHERLY LINE OF THE LAND OF NANCY JO TOWLE AND CARL E. POSTON AS RECORDED BY STATUTORY BARGAIN AND SALE DEED DOCUMENT NUMBER 2010-047066 RECORDS OF CLACKAMAS COUNTY;



THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO SAID DEED SOUTH 64°20'07" WEST FOR A DISTANCE OF 130.10 FEET;

THENCE, CONTINUING AT 10 FOOT OFFSET AND PARALLEL TO SAID DEED NORTH 26°07'36" WEST FOR A DISTANCE OF 124.88 FEET TO POINT ON SAID DIVISION LINE AND THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION, SAID DESCRIPTION ENCLOSES 33.156 ACRES, MORE OR LESS.

SUBJECT TO EASEMENTS AND ENCUMBRANCES OF RECORD, IF ANY.



Attachment "B"

Additional Permitted Uses

The Declarant specifically reserves the following rights and uses with respect to the Property:

1. The right of access to the Property similar to the rights of the Declarant and its members pursuant to the Declaration of Conditions and Restrictions recorded on November 7, 1973 in the Recorder's Office for Clackamas County, Oregon as Instrument Number 73-34971, at the Property's present access points, provided that all such access shall be taken in accordance with the terms of this Declaration and shall not impair Conservation Values.
2. The right to use, maintain, repair and replace existing improvements at the Property (including but not limited to existing stairs and drain pipes) within existing improvements' current footprint. Existing improvements cannot be expanded to occupy a larger footprint.
3. Access to and use of the pathway (surfaced with suitable permeable material, e.g., gravel or wood chips) between the bases of the existing stairs, which pathway is to be installed in conjunction with the restoration work performed at the Property. Access shall be restricted to the pathway and access points, and all pets must remain on a leash.
4. The right to trim or remove plantings within an area of the Property identified as the Hill Slope Area (as shown in yellow on Attachment C) if such plantings materially obstruct the view of the pond, channels and wetland areas within the Property. This right may only be exercised after notice to and consultation with Rinearson and Trustee Council.
5. The right to treat or remove any trees with a diameter of 8" or greater which Declarant reasonably determines presents a real and actual threat of bodily injury or property damage. Except in the case of an emergency, in which case Declarant shall notify Rinearson and the Trustee Council as soon as possible, this right may only be exercised after notice to, consultation with, and approval by Rinearson and the Trustee Council.

VICINITY MAP

NO SCALE



EXHIBIT "LIMITS OF IMPROVEMENTS"

FOR
RINEARSON NATURAL RESOURCE AREA

SITUATED IN SOUTH HALF OF SECTION 19
TOWNSHIP 2 SOUTH, RANGE 2 EAST, WILLAMETTE MERIDIAN,
CITY OF GLADSTONE, CLACKAMAS COUNTY, STATE OF OREGON

NO CORNERS SET WITH THIS MAPPING

*The Hill
Slope Area*

*Believed
1st Land*

REFERENCE DEEDS

SURVEY	TAX LOT	PARCELS	ALL IN CLACKAMAS COUNTY DEED RECORDS	REF. #	DEED	GRANTEE (OWNER)
2219040(101)	0002054	(01)	DEED 93-30083	(01)	88-72-3741	CITY OF GLADSTONE, OR
102 & 100	2219040(102)	(02)	DEED 92-30263	(02)	88-72-3741	STATE OF OREGON, DOT
113	2219040(113)	(03)	DEED 2007-09070	(03)	009-35070	CORNEIL, V. SAMPSON
143	2219040(143)	(04)	DEED 2007-09070	(04)	009-35070	CITY OF GLADSTONE, OR
181	2219040(181)	(05)	DEED 76-22075 EXP	(05)	005 FILED 94-048-05	DEAN OLSON, 09-088195 CITY OF GLADSTONE, OR
200	2219040(200)	(06)	DEED 92-30243	(06)	88-72-3741	CITY OF GLADSTONE, OR
280	2219040(280)	(07)	DEED 74-8-50	(07)	81 OF OR DOT-1841 DW	STATE OF OREGON, DOT
300	2219040(300)	(08)	DEED 92-30263	(08)	88-72-3741	CITY OF GLADSTONE, OR
300	2219040(300)	(09)	DEED 74-8-50	(09)	81 OF OR DOT-1841 DW	STATE OF OREGON, DOT
1702	2219040(1702)	(10)	DEED 79-3809	(10)	81 OF OR DOT-1841 DW	STATE OF OREGON, DOT
390	2219040(390)	(11)	DEED 74-8-50	(11)	81 OF OR DOT-1841 DW	STATE OF OREGON, DOT
390	2219040(390)	(12)	DEED 92-30263	(12)	88-72-3741	CITY OF GLADSTONE, OR

LINE TABLE

LINE NO.	DESCRIPTION	BEARING	DISTANCE
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Attachment C



SCALE: 1"=150'



LEGEND

- = CORNERS FOUND WITHIN AS NOTED
- = 1/2" TO REFERENCE DEED DATA
- + = SET BY PREVIOUS SURVEY, NOT THIS SURVEY

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	TANGENT LENGTH	CHORD BEARING	INT. ANGLE
1	114.52	114.52	114.52	N89°49'34"E	100°00'00"
2	114.52	114.52	114.52	N89°49'34"E	100°00'00"
3	114.52	114.52	114.52	N89°49'34"E	100°00'00"
4	114.52	114.52	114.52	N89°49'34"E	100°00'00"
5	114.52	114.52	114.52	N89°49'34"E	100°00'00"
6	114.52	114.52	114.52	N89°49'34"E	100°00'00"
7	114.52	114.52	114.52	N89°49'34"E	100°00'00"
8	114.52	114.52	114.52	N89°49'34"E	100°00'00"
9	114.52	114.52	114.52	N89°49'34"E	100°00'00"
10	114.52	114.52	114.52	N89°49'34"E	100°00'00"

REGISTERED PROFESSIONAL LAND SURVEYOR

DAVE J. GRESHAM
EXPIRES: 04/30/2018

STATEWIDE LAND SURVEYING INC.
WWW.STATEWIDE-SURVEYING.COM
2500 NW 20TH ST #10
GRESHAM, OR 97030
PH: 503.665.7960
FAX: 503.665.7777

DRAWN: G.D.S. DATE: 8/7/2015
CHECKED: DAVE DATE: 8/29/15
SCALE: 1" = 150' SHEET: 1 OF 1 PROJECT NO: 2015-42

**Appendix G-3b
Form of Conservation Easement Deed- City of Gladstone**

[Note: This conservation easement deed form is subject to revision due to the selection of a conservation easement holder.]

RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO:	
--	--

Property Address: N/A
 Tax Parcel IDs: 00526354; 05019648; 05000035; 00526256; 00526265; 00526274; 00526924
 Deed Reference(s): 92-30263; 2007-092290; 99-088195
 County Recording No. _____

**Conservation Easement Deed
(Restoration Project)**

THIS CONSERVATION EASEMENT DEED ("Conservation Easement") is made this _____ day of _____, 2018, by CITY OF GLADSTONE, an Oregon municipal corporation (the "Grantor"), in favor of _____¹ ("Grantee").

RECITALS:

- A. Grantor is the owner of certain property located in the City of Gladstone, Clackamas County, Oregon, which property is more particularly described and depicted in the Deeds referenced below (hereafter the "City Land"):

Tax Parcel ID	Vesting Deed(s)
00526354	Deed made by the State of Oregon, Parks and Recreation Department, on May 12, 1992 and recorded in the Recorder's Office for Clackamas County, Oregon (the "Recorder's Office") as Instrument Number 92-30263 (the "Parks and Rec Deed"). Warranty Deed made by Duane

¹ The grantee will be a non-profit organization, an Indian Tribe or a governmental entity.

	Peabody and Verle R. Peabody on November 22, 1972 and recorded in the Recorder's Office as Instrument Number 72-37511.
05019648	Dedication Agreement for Real Property made by Adam F. Hoesly on October 12, 2007 and recorded in the Recorder's Office as Instrument Number 2007-092290.
05000035	Bargain & Sale Deed made by Robinwood Riviere Property Owners Association on September 1, 1999 and recorded in the Recorder's Office as Instrument Number 99-088195 (the "Robinwood Deed").
00526256, 00526265 and 00526924	Deed made by the State of Oregon, Parks and Recreation Department, on May 12, 1992 and recorded in the Recorder's Office as Instrument Number 92-30263. Warranty Deed made by Jack W. Parker on March 5, 1974 and recorded in the Recorder's Office as Instrument Number 74-6136.
00526274	Deed made by the State of Oregon, Parks and Recreation Department, on May 12, 1992 and recorded in the Recorder's Office as Instrument Number 92-30263. Deed made by the State of Oregon, acting by and through the Division of State Lands, on January 22, 1979 and recorded in the Recorder's Office as Instrument Number 79-3809 (the "DSL Deed").

- B. Rinearson Natural Area, LLC, an Oregon limited liability company ("Rinearson"), intends to implement a natural resource damage assessment restoration project known as the Rinearson Natural Area Restoration Project (the "Project") on certain property located in the City of Gladstone and Clackamas County, Oregon containing approximately 33.156 acres, including a portion of the City Land, and being more particularly shown on Attachment "A-1" and described on Attachment "A-2" (the "Project Land"). Attachments "A-1" and "A-2" are incorporated herein by reference. The portion of the City Land included in the Project is hereafter referred to as the "Property". Rinearson and Grantor have entered into an agreement by which Rinearson

has the sole and exclusive right to conduct all activities on the Property necessary to complete the Project (the "Project Agreement"). Pursuant to the Project Agreement, Grantor has agreed to restrict the Property in order to protect the completed Project in perpetuity.

- C. Grantee is an organization qualified by ORS 271.715 (3) to hold conservation easements.
- D. This agreement is a conservation easement as provided for by ORS 271.715 to 271.795 and will run with the land.
- E. This Conservation Easement Deed is being executed and delivered pursuant to a Habitat Development Plan for the Rinearson Natural Area Restoration Project (the "Habitat Development Plan") and Restoration Project Memorandum of Agreement (collectively, the "Conservation Agreement"). The Habitat Development Plan and long-term stewardship plan entitled the "Rinearson Natural Area Long-Term Stewardship Plan" (the "Stewardship Plan") have been specifically developed for the Property. Grantor and Grantee have and shall maintain in their possession a copy of the Conservation Agreement, the Stewardship Plan, and the Habitat Development Plan, all of which are fully incorporated herein by reference.
- F. The Property provides or is capable of providing significant ecological and habitat values that benefit endangered, threatened, and other ecologically important species (collectively, "Conservation Values"), as set forth in the Conservation Agreement, including "Essential Fish Habitat" for all life stages and associated habitat, for, among other things, Lower Columbia River steelhead (*Oncorhynchus mykiss*), Lower Columbia River Chinook salmon (*O. tshawytscha*), Columbia River chum salmon (*O. keta*), Lower Columbia River coho salmon (*O. kisutch*), Upper Willamette River Chinook salmon, and Upper Willamette River steelhead (each a "Target Species").
- G. The Portland Harbor Natural Resource Trustee Council ("Trustee Council") consists of the following members: the National Oceanic and Atmospheric Administration ("NOAA") on behalf of the United States Department of Commerce, the United States Fish and Wildlife Service ("USFWS") on behalf of the United States Department of the Interior, the Oregon Department of Fish and Wildlife ("ODFW") on behalf of the State of Oregon, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe. As referenced to in this Easement Deed, "Trustee Council" means all of the above listed Trustee Council members. The Trustee Council is conducting a damage assessment for the Portland Harbor Superfund site ("Site"), and anticipates bringing claims for injuries to natural resources under the Comprehensive Environmental Response Compensation and Liability Act, 42 U.S.C. §§ 9601, et seq. ("CERCLA"), the Oil Pollution Act of 1990, 33 U.S.C. §§ 9601, et seq. and other applicable federal and state law.

- H. Additionally, NOAA and USFWS exercise jurisdiction with respect to the conservation, protection, restoration, enhancement, and management of threatened and endangered species and habitat pursuant to various federal laws including the Endangered Species Act, 16 U.S.C. §§ 1531 *et seq.* ("ESA"), the Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661-666c, the Magnuson-Stevens Act ("MSA") as amended (16 U.S.C. §§ 1801 *et seq.*) and the Fish and Wildlife Act of 1956 (16 U.S.C. §§742(f) *et seq.*).
- I. Grantor intends to convey to Grantee the right to preserve, protect, sustain, and enhance and/or restore the Conservation Values of the Property in perpetuity.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

NOW, THEREFORE, in consideration of the above recitals and the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of the United States and the State of Oregon, Grantor hereby voluntarily grants and conveys to Grantee the Conservation Easement in perpetuity over the Property, consistent with the Conservation Agreement, on the terms set out below.

1. Purpose. The purpose of this Conservation Easement is to ensure that the Property will be retained forever in a condition contemplated by the Conservation Agreement and to prevent any use of the Property that will significantly impair or interfere with the Conservation Values of the Property. Grantor intends that this Conservation Easement will confine and restrict the use of the Property to such activities including, without limitation, those involving the preservation, conservation, and enhancement of native species and their habitats in a manner consistent with the purposes of this Conservation Easement and the Conservation Agreement.

2. Rights of Grantee. To accomplish the purposes of this Conservation Easement, Grantor hereby grants and conveys the following rights to Grantee for the duration of the Conservation Easement, along with a third-party right of enforcement to the Trustee Council or their designee(s) as third-party beneficiaries hereof, consistent with the Conservation Agreement:

A. To preserve, protect, sustain, enhance, and/or restore the Conservation Values of the Property.

B. To enter upon the Property at reasonable times, subject to giving Grantor forty-eight (48) hours' notice, except in cases where Grantee and/or the Trustee Council or either of their designees determine that immediate entry is required to prevent, terminate, or mitigate a violation of the Conservation Agreement, to monitor Grantor's compliance with and to otherwise enforce the terms of this Conservation Easement; provided that Grantee the Trustee Council, or either of their designees, as applicable, shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Property.

C. To prevent any activity on or use of the Property that is inconsistent with the habitat conservation purposes of this Conservation Easement and to require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use or activity that is inconsistent with the purposes of this Conservation Easement.

D. All mineral, air and water rights necessary to preserve, protect and sustain the biological resources and Conservation Values of the Property, unless specifically excluded from this Conservation Easement, including Grantor's right, title and interest in and to any waters consisting of: (a) any riparian water rights appurtenant to the Property; (b) any appropriative water rights held by Grantor to the extent those rights are appurtenant to the Property; (c) any waters, the rights to which are secured under contract between the Grantor and any irrigation or water district, to the extent such waters are customarily applied to the Property; and (d) any water from wells that are in existence or may be constructed in the future on the Property or on those lands described as excepted from the Property in the legal description and that were historically used by the Grantor to maintain the Property in a flooded condition (collectively, "Easement Waters"). The Easement Waters, mineral, air and water rights are limited to the amount of Grantor's waters reasonably required to maintain the Conservation Values of the Property.

E. All present and future development rights.

3. Prohibited Uses. Any activity on or use of the Property inconsistent with the conservation purposes of this Conservation Easement and the Conservation Agreement is prohibited. Without limiting the generality of the foregoing, Grantor, its personal representatives, heirs, successors, assigns, employees, agents, lessees, permittees, licensees and invitees are expressly prohibited from doing or permitting any of the following on the Property unless specifically authorized by the Grantee, Habitat Development Plan or the Stewardship Plan:

A. Construction, reconstruction, or placement of any permanent building or structure;

B. Unseasonable watering; use of fertilizers, biocides, or other agricultural chemicals; incompatible fire protection activities; and any and all other uses which may adversely affect the conservation purposes of this Conservation Easement.

C. Grazing or agricultural activity of any kind.

D. Commercial or industrial uses.

E. Depositing or accumulating soil, trash, ashes, refuse, waste, bio-solids, or any other material.

F. Filling, dumping, excavating, draining, dredging, mining, drilling, removing, exploring for or extracting minerals, loam, gravel, soil, rock, sand or other material on or to a depth of 100 feet below the surface of the Property, or granting or authorizing surface entry for any of these purposes on the Property.

G. Altering the surface or general topography of the Property, including building roads, paving, or otherwise covering the Property with concrete, asphalt, or any other impervious material.

H. Removing, destroying, or cutting trees, shrubs, or other vegetation, except (1) to the extent otherwise consistent with the Habitat Development Plan, Stewardship Plan and

Conservation Agreement, and (2) as required for: (i) fire breaks; (ii) maintenance of existing foot trails or roads; (iii) prevention or treatment of disease; (iv) utility line clearance; (v) levee easement clearance; (vi) invasive species management; or (vii) prevention or remediation of vegetation that creates a substantial risk of bodily injury or property damage. Grantor shall provide prior notice and consult with Grantee and the Trustee Council, or their respective designees, prior to cutting or removing trees, shrubs or other vegetation for the purposes authorized in this section, except in the event of an emergency, in which case Grantor shall notify Grantee and the Trustee Council as soon as practicable.

I. Use of motorized vehicles, including off-road vehicles, except on existing roadways, inasmuch as they are harmful or adverse to the conservation purposes of the Conservation Easement. Notwithstanding the forgoing, the use of motorized vehicles is allowed for the limited purposes of land management, maintenance, and monitoring to the extent such use is consistent with the Habitat Development Plan, Stewardship Plan and Conservation Agreement. Use of emergency vehicles is allowed for the limited purpose of emergency response, in which case Grantor shall notify Grantee and the Trustee Council as soon as practicable.

J. Transferring any water right potentially beneficial to the maintenance or restoration of the biological resources of the Property.

K. Planting, introduction, or dispersal of invasive or exotic plant or animal species.

L. Manipulating, impounding or altering any natural watercourse, body of water or water circulation on the Property, other than those actions set forth under the Habitat Development Plan, and any activities or uses that are or are likely to be detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters.

M. Permitting a general public right of access to the Property, provided, however, that (i) public access may be permitted on the trails identified in the Habitat Development Plan and (ii) volunteer organizations, education-related groups, news media and similar third-parties may be allowed to temporarily enter the Property for the limited purposes of inspection, education or public relations. All rights of access permitted under this section shall be in accordance with and subject to the provisions of and restrictions set forth in this Conservation Easement Deed.

N. Trapping native species, except to the extent required for public health or safety, and under all circumstances in consultation with and by approval of Grantee.

O. Hunting.

4. Grantor's Duties. As the owner of the Property, Grantor shall be responsible for preventing the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Property and are inconsistent with the Conservation Agreement. Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Property and are inconsistent with the Conservation Agreement, Stewardship Plan and Habitat Development Plan.

5. Grantor's Reserved Rights. All rights accruing from Grantor's ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited herein and are not inconsistent with the purposes of this Conservation Easement are reserved to Grantor and Grantor's personal representatives, heirs, successors, and assigns.

6. Remedies for Violation and Corrective Action. If Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) determines there is a violation of the terms of this Conservation Easement or that a violation is threatened, written notice of such violation and a demand for corrective action sufficient to cure the violation shall be given to Grantor or Grantee, whichever is the violating party. Within ten (10) days of the receipt of written notice of such violation, the notice recipient shall provide a written response to each of the parties to this Conservation Easement, and to the Trustee Council or the Trustee Council's designee(s), pursuant to the "Notices" section below of this Conservation Easement. In any instance, measures to cure the violation shall be reviewed and approved by the Trustee Council or the Trustee Council's designee(s). If a violation is not cured within thirty (30) days after receipt of written notice and demand, or if the cure reasonably requires more than thirty (30) days to complete and there is failure to begin the cure within the thirty-day period or failure to continue diligently to complete the cure, the parties shall first engage in the following dispute resolution process to resolve any disputes arising related to the violation and cure. The Grantor, Grantee, or Trustee Council or the Trustee Council's designee(s), shall issue a written Notice of Deficiencies to all Parties, detailing the claimed deficiencies concerning the violation and cure. The Notice of Deficiencies shall identify a higher-level administrative officer within the issuing party's organization who shall represent the party in the dispute resolution process ("Dispute Resolution Representative"). The Notice of Deficiencies shall include the Dispute Resolution Representative's contact information. Within fourteen (14) days of the receipt of the Notice of Deficiencies, the remaining parties shall identify corresponding Dispute Resolution Representatives within their respective organizations and communicate to schedule a joint conference to be held at the earliest opportunity. The Dispute Resolution Representatives shall engage in a reasonable, good-faith effort to review the dispute and decide upon a mutually agreeable cure, which shall be diligently implemented. If, after a reasonable period of time, the Dispute Resolution Representatives are unable to reach agreement, the Grantor, Grantee, or the Trustee Council or the Trustee Council's designee(s) may bring an action at law or in equity in a court of competent jurisdiction to enforce compliance with the terms of this Conservation Easement, to recover any damages to which Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) may be entitled for violation of the terms of this Conservation Easement or for any injury to the Conservation Values of the Property, or for other equitable relief, including, but not limited to, the restoration of the Property to the condition in which it existed prior to any violation or injury. Without limiting violator's liability therefore, any damages recovered may be applied to the cost of undertaking any corrective action on the Property.

6.1 Injunctive Relief. If Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s), in each its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) may pursue its remedies under this Section without prior notice or without waiting for the period

provided for cure to expire to enjoin the violation, *ex parte* as necessary, by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies, and to require the restoration of the Property to the condition that existed prior to any such injury. The remedies described in this Section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity. The failure of Grantee, Grantor, the Trustee Council or the Trustee Council's designee(s) to discover a violation or to take immediate legal action shall not bar taking such action at a later time.

6.2 Standing. If at any time Grantee, Grantor, or any successor in interest or subsequent transferee uses or threatens to use the Property for purposes not in conformance with the stated conservation purposes contained herein, or releases or threatens to abandon this Conservation Easement in whole or in part, then, the Trustee Council or the Trustee Council's designee(s) shall have standing as an interested party in any proceeding affecting this Conservation Easement.

6.3 Costs of Enforcement. All reasonable costs incurred in enforcing the terms of this Conservation Easement including, but not limited to, costs of suit and attorneys' fees, and any costs of restoration necessitated by violation or negligence under the terms of this Conservation Easement shall be borne by the violator.

6.4 Enforcement Discretion. Enforcement of the terms of this Conservation Easement shall be at the discretion of Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s), and any forbearance to exercise rights of enforcement under this Conservation Easement in the event of any breach of any term of this Conservation Easement shall not be deemed or construed to be a waiver of such term or of any subsequent breach of the same or any other term of this Conservation Easement or of any rights under this Conservation Easement. No delay or omission in the exercise of any right or remedy upon any breach shall impair such right or remedy or be construed as a waiver.

6.5 Catastrophic Acts Beyond Grantee's or Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) to bring any action for any injury to or change in the Property resulting from causes beyond Grantee or Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken by Grantee or Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes. The Grantor, Grantee, and Trustee Council or the Trustee Council's designee(s) shall be notified of the catastrophic event within forty-eight (48) hours of its discovery. The Grantor, Grantee, and the Trustee Council or the Trustee Council's designee(s) shall meet as soon as reasonably possible to determine a response to such catastrophic event. In the interim, the Grantor shall continue to the fullest extent possible to manage and maintain the Property consistent with the conservation purposes of the Conservation Easement and Conservation Agreement.

6.6 Third-Party Beneficiaries' Right of Enforcement. All rights and remedies conveyed under this Conservation Easement to Grantee shall extend to and are independently enforceable by the Trustee Council or its designee(s) as a third-party beneficiary. These rights of

enforcement are in addition to, and do not limit, the rights of enforcement under the Conservation Agreement.

7. Costs and Liabilities. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property, including transfer costs, costs of title and documentation review, and maintenance of adequate liability insurance coverage. Grantor remains solely responsible for obtaining any applicable permits and approvals required for any activity or use permitted on the Property by this Conservation Easement, and any such activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency laws, statutes, ordinances, rules, regulations, orders and requirements. Nothing in this Section is intended to relieve Grantee of its obligations under the Habitat Development Plan, Conservation Agreement, or the Stewardship Plan.

7.1 Taxes: No Liens. Grantor shall pay, before delinquency, all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively, "taxes"), including any taxes imposed upon, or incurred as a result of, this Conservation Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantor shall keep Grantee's interest in the Property free from any liens, including those arising out of any obligations incurred by Grantor for any labor or materials furnished or alleged to have been furnished at or for use on the Property.

7.2 Hold Harmless. Grantor shall hold harmless, indemnify, and defend Grantee, Trustee Council or the Trustee Council's designee(s), and each of their respective members, directors, officers, employees, agents, and contractors and the heirs, personal representatives, successors, and assigns (collectively, the "Indemnified Parties"), from, for, and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, orders, liens, or judgments, including, without limitation, reasonable attorneys' fees, arising from or in any way connected with (a) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, unless due to the negligence of any of the Indemnified Parties, b) the obligations, covenants, representation and warranties of this Conservation Easement relating to the Costs and Liabilities of this Section 7, and c) breach or noncompliance by Grantor with respect to any obligations of Grantor under this Conservation Easement.

7.3 Grantor shall hold harmless, indemnify, and defend Grantor and the Trustee Council or the Trustee Council's designee(s), and each of their respective members, directors, officers, employees, agents, and contractors and the heirs, personal representatives, successors, and assigns from and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, orders, liens, or judgments, including, without limitation, reasonable attorneys' fees, arising from or in any way connected with injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property arising from or in connection with any act or omission by Grantee or any employee, agent or contractor of Grantee, unless due to the negligence of any of the Indemnified Parties.

7.4 Grantor and Grantee shall maintain in force general liability insurance with respect to the Property with minimum liability amounts of not less than \$1,000,000.00 per occurrence of bodily injury or property damage (which is intended only as a minimum and not a limit to liability), each written on an occurrence basis, each including contractual liability coverage with respect to each party's indemnification obligations set forth above, and each naming the other and its Indemnified Parties as additional insureds. Such insurance shall be primary and noncontributory with any other coverage held by the additional insured. Upon request, either party will provide the other with a certificate evidencing such coverage.

8. Best and Most Necessary Use. The habitat conservation purposes of the Conservation Easement are presumed to be the best and most necessary public use.

9. Conservation Easement Assignment or Transfer. This Conservation Easement may be assigned or transferred by Grantee or any successor in interest upon written approval of the Trustee Council or its designee(s) and Grantor, which approval shall not be unreasonably withheld, but Grantee shall give Grantor and the Trustee Council or the Trustee Council's designee(s) at least thirty (30) days prior written notice of the transfer. Grantee or any successor in interest may assign or transfer its rights and obligations under this Conservation Easement only to an entity or organization as approved by the Trustee Council or the Trustee Council's designee(s) and Grantor. As a condition of such assignment or transfer, Grantee shall require that the conservation purposes of this Conservation Easement and the Conservation Agreement are carried out and notice of such restrictions, including the Conservation Agreement, shall be recorded in the County where the Property is located. The failure of Grantee to perform any act required by this paragraph shall not impair the validity of this Conservation Easement or its enforcement in any way.

10. Subsequent Property Transfer. This Conservation Easement may be assigned or transferred by Grantor or any successor in interest upon written approval of the Trustee Council or its designee(s), which approval shall not be unreasonably withheld. Grantor agrees to give Grantee and the Trustee Council or the Trustee Council's designee(s) written notice of its intent to transfer any interest in this Conservation Easement at least thirty (30) days prior to the date of such transfer. Grantor or any successor in interest may assign or transfer its rights and obligations under this Conservation Easement only to an entity or organization as approved by the Trustee Council or its designee(s). Grantor further agrees to incorporate the terms of this Conservation Easement in any deed or other legal instrument by which Grantor divests itself of any interest in all or a portion of the Property, including, without limitation, a leasehold interest. Grantee or the Trustee Council or the Trustee Council's designee(s) shall have the right to prevent subsequent transfers in which prospective subsequent claimants or transferees are not given notice of the terms, covenants, conditions and restrictions of this Conservation Easement or whenever a subsequent Property transfer will result in a merger of the Conservation Easement and the Property in a single Property owner (thereby extinguishing the Conservation Easement) if no method or mechanism deemed adequate to preserve, protect, and sustain the Property in perpetuity has been established. The failure of Grantor to perform any act required by this section shall not impair the validity of this Conservation Easement or limit its enforcement in any way.

11. Estoppel Certificates. Grantee shall, within thirty (30) business days after receiving Grantor's request therefore, execute and deliver to Grantor a document certifying, to the best knowledge of the person executing the document, that Grantor is in compliance with any obligation of Grantor contained in this Conservation Easement, or otherwise evidencing the status of such obligation to the extent of Grantee's knowledge thereof, as may be reasonably requested by Grantor.

12. Notices. Any notice, demand, request, consent, approval, or other communication that Grantor, Grantee, or the Trustee Council or the Trustee Council's designee(s) desires or is required to give to the others shall be in writing and either served personally or sent by first-class mail, postage prepaid or by recognized overnight courier that guarantees next-day delivery addressed as follows:

To Grantor: Eric Swanson (or then current Gladstone City Administrator)
City of Gladstone
City Administrator
525 Portland Avenue
Gladstone, OR 97027

With a copy to (which alone shall not constitute notice):

David Doughman (or then current Gladstone City Attorney)
Beery Elsner & Hammond
1750 SW Harbor Way, #380
Portland, OR 97201

To Grantee: _____²

To Trustee Council: NOAA
Restoration Center
1201 NE Lloyd Blvd., Suite 1100
Portland, OR 97232

United States Fish and Wildlife Service
Pacific Region
Attn: Field Supervisor
911 NE 11th Ave. #1
Portland, OR 97232

Oregon Department of Fish and Wildlife
3406 Cherry Avenue N.E. Salem, OR 97303
Confederated Tribes of the Grand Ronde

² The grantee's contact information will be inserted once a conservation easement holder is identified.

Confederated Tribes of the Grand Ronde Community of Oregon
Attn: Michael Karnosh, Ceded Lands Program Manager
9615 Grand Ronde Road
Grand Ronde, Oregon 97347

Confederated Tribes of Siletz Indians
ATTN: Natural Resources Manager
P.O. Box 549
Siletz, OR 97380

Confederated Tribes of the Umatilla Indian Reservation
Nixyaawii Governance Center
46411 Timine Way
Pendleton, OR 97801

Confederated Tribes of the Warm Springs Reservation of Oregon
1107 Wasco Street
Warm Springs, OR 97761

Nez -Perce Tribe
P.O. Box 305
Lapwai, ID 83540

or to such other address as a party shall designate by written notice to the others. Notice shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by first class mail, five (5) clays after deposit into the United States mail.

13. Recordation. Grantor shall submit an original, signed and notarized Conservation Easement to Grantee and Grantee shall promptly record this instrument in the official records of the County in which the Property is located, and shall thereafter promptly provide a conformed copy of the recorded Conservation Easement to the Grantor and to the Trustee Council or the Trustee Council's designee(s). Grantee may re-record at any time as may be required to preserve its rights in this Conservation Easement.

14. Amendment. This Conservation Easement may be amended by Grantor and Grantee only by mutual written agreement and written approval by the Trustee Council or the Trustee Council's designee(s). Any such amendment shall be consistent with the purposes of this Conservation Easement and shall not affect its perpetual duration, and Grantee shall promptly record this amended instrument in the official records of the County in which the Property is located, and shall thereafter promptly provide a conformed copy of the recorded amended Conservation Easement to the Grantor and to the Trustee Council or its designee(s).

15. No Warranty; AS IS. Grantee agrees, for itself, its successors and assigns, that it is accepting this grant on an AS IS basis, without reliance upon any representation or warranty of Grantor, and relying solely upon Grantee's own expertise, experience and investigation of the Property and Grantee expressly disclaims, waives and releases any warranty or representation,

express or implied, by Grantor or any representative of Grantor, including as to title, condition, or suitability for any particular purpose.

16. Additional Interests. Except for another conservation easement established in accordance with the Conservation Agreement and which is not adverse to the Conservation Easement established herein, Grantor shall not grant any additional interest in the Property that is not subordinate to this Conservation Easement, nor shall Grantor grant, transfer, abandon, or relinquish any water or water right associated with the Property, including without limitation any Easement Waters, without the prior written authorization of Grantee and the Trustee Council or the Trustee Council's designee(s). Such consent may be withheld if the proposed interest or transfer is inconsistent with the purposes of this Conservation Easement and the Conservation Agreement or will impair or interfere with the Conservation Values of the Property. This Section shall not prohibit the transfer of a fee title or leasehold interest in the Property that is otherwise subject to and complies with the terms of this Conservation Easement.

17. Third-Party Beneficiaries and Access. Grantor and Grantee acknowledge that the Trustee Council and its designee(s) are third-party beneficiaries of this Conservation Easement with rights to enforce all of the provisions of this Conservation Easement and with rights of access to the Property for monitoring or conservation activities contemplated by this Conservation Easement or the Conservation Agreement. Except in cases where the Trustee Council or its designee(s) determine that immediate entry is required to prevent, terminate, or mitigate a violation of the Agreement, such access is subject to providing the Grantor with forty-eight (48) hours' notice.

18. Condemnation. If all or any part of the Property is the subject of an eminent domain proceeding, Grantor will take reasonable actions to defend the Property and the Conservation Values associated with it. In the event that said efforts are unsuccessful, Grantor shall take all appropriate actions to recover the full value of the taking and all incidental or direct damages resulting from the taking (the "Proceeds"). Grantee shall receive the portion of the Proceeds equal to the value of the Conservation Easement. Disagreements regarding the appropriate response under this Section shall be resolved in accordance with the Dispute Resolution provision in this Conservation Easement.

19. No Merger. This Conservation Easement shall be of perpetual duration, it being the express intent of the Parties that this Easement not be extinguished by, or merged into, any other interest or estate in the Property now or hereafter held by Grantee or any other Party.

20. General Provisions.

20.1 Controlling Law. The interpretation and performance of this Conservation Easement shall be governed by the laws of the State of Oregon and applicable Federal law including the ESA.

20.2 Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Conservation Easement shall be liberally construed in favor of the deed to affect the purposes of this Conservation Easement. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Easement that

would render the provision valid shall be favored over any interpretation that would render it invalid.

20.3 Severability. If any provision of this Conservation Easement or the application thereof is found to be invalid the remaining provisions of this Conservation Easement or the application of such provisions other than that found to be invalid shall not be affected thereby.

20.4 Entire Agreement. This Conservation Easement and the Conservation Agreement incorporated by reference herein, including all of the exhibits thereto, together set forth the entire agreement of the parties and supersede all prior discussions, negotiations, understandings, or agreements relating to the Conservation Easement, all of which are merged herein. No alteration or variation of this instrument shall be valid or binding unless contained in an amendment in accordance with the provisions herein.

20.5 No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

20.6 Successors. The covenants, terms, conditions, and restrictions of this Conservation Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall constitute a servitude running in perpetuity with the Property. This Conservation Easement shall remain valid consistent with the terms of ORS 271.745.

20.7 Termination of Rights and Obligations. A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or Property, except that liability for acts, omissions or breaches occurring prior to transfer shall survive transfer.

20.8 Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon its construction or interpretation.

20.9 Counterparts. The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

IN WITNESS WHEREOF, Grantor has executed and delivered this Conservation Easement Deed as of the day and year first above written.

GRANTOR:

By: _____

Title: _____

Date: _____

GRANTEE:

By: _____

Title: _____

Date: _____

VICINITY MAP

NO SCALE

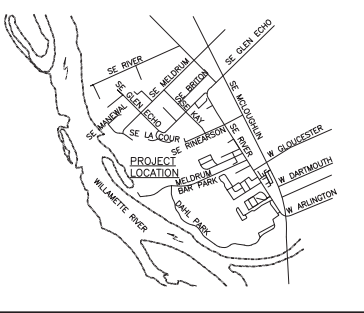


EXHIBIT "LIMITS OF IMPROVEMENTS"

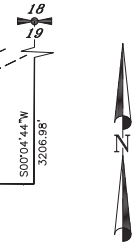
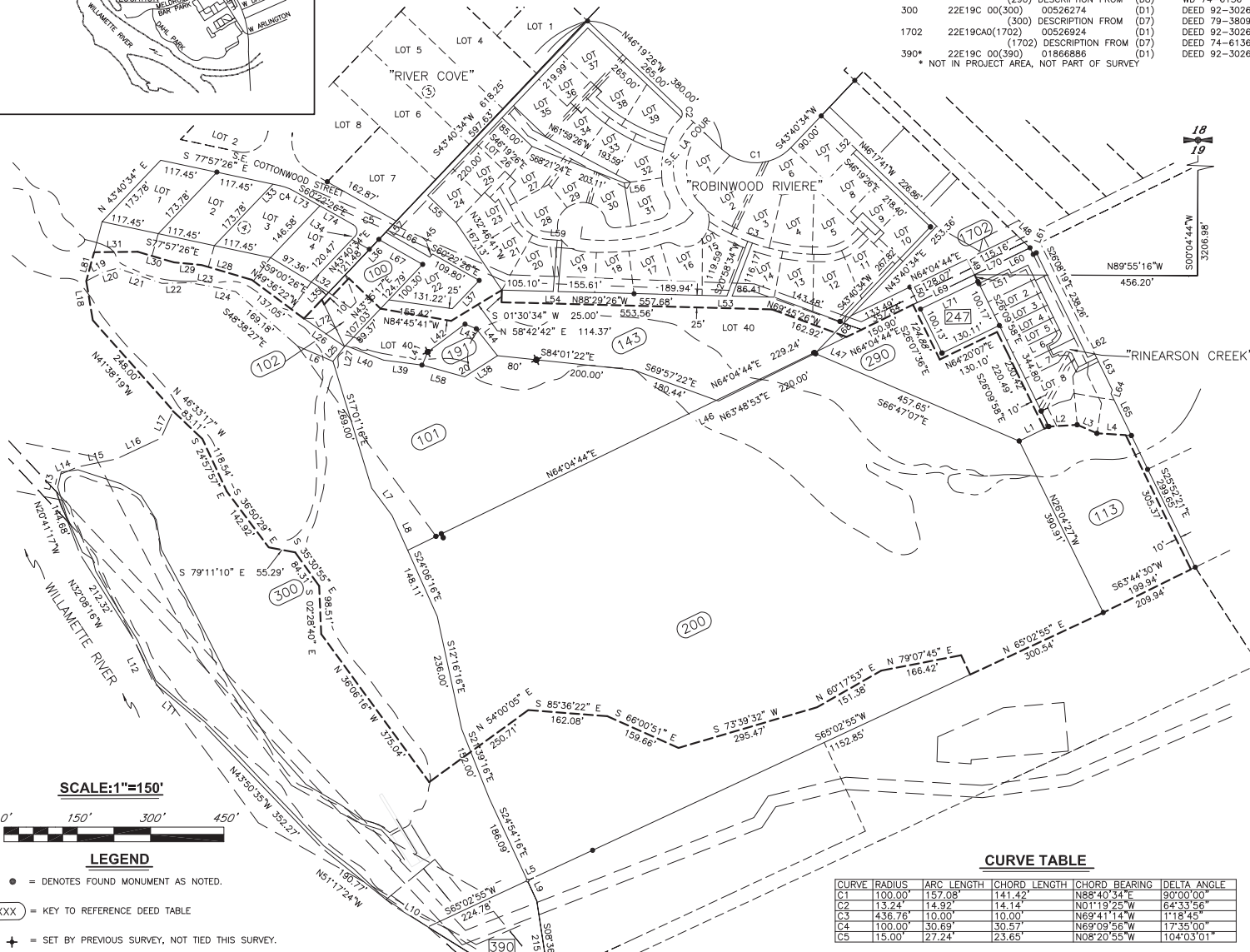
FOR
RINEARSON NATURAL RESOURCE AREA
SITUATED IN SOUTH HALF OF SECTION 19
TOWNSHIP 2 SOUTH, RANGE 2 EAST, WILLAMETTE MERIDIAN,
CITY OF GLADSTONE, CLACKAMAS COUNTY, STATE OF OREGON.
NO CORNERS SET WITH THIS MAPPING.

REFERENCE DEEDS

SURVEY	TAX LOT	ALL IN CLACKAMAS COUNTY DEED RECORDS	GRANTEE (OWNER)
		PARCEL# REF. # DEED	
101	22E19CA00(101)	00526354 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(101)	DESCRIPTION FROM (D2)	WD 72-37511 STATE OF OREGON, DOT
102 & 100	22E19CA00(102)	00526363 (D3)	QCD 2005-050728 CORNELL V SAPTENON
113	22E19DB00(113)	05019648 (D4)	DED 2007-092290 CITY OF GLADSTONE, OR
143	22E19CA00(143)	01606925 (D5)	WD 76-22575 EXP BAS DEED 99-088195
191	22E19CA00(191)	05000355 (D6)	BAS DEED 99-088195 CITY OF GLADSTONE, OR
200	22E19C 00(200)	00526256 (D7)	DEED 92-30263 CITY OF GLADSTONE, OR
	(200)	DESCRIPTION FROM (D1)	DEED 74-6136 ST OF OR DOT-HWY DIV
290	22E19C 00(290)	00526265 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(290)	DESCRIPTION FROM (D8)	WD 74-6136 STATE OF OREGON, DOT
300	22E19C 00(300)	00526274 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(300)	DESCRIPTION FROM (D7)	DEED 79-3809 ST OF OR DOT-HWY DIV
1702	22E19CA00(1702)	00526924 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
	(1702)	DESCRIPTION FROM (D7)	DEED 74-6136 ST OF OR DOT-HWY DIV
390*	22E19C 00(390)	01866886 (D1)	DEED 92-30263 CITY OF GLADSTONE, OR
		* NOT IN PROJECT AREA, NOT PART OF SURVEY	

LINE TABLE

LINE	BEARING	DISTANCE
L1	N63°55'33"E	87.25'
L2	N86°24'24"E	58.33'
L3	S66°44'30"E	44.13'
L4	S66°24'20"E	70.31'
L5	S65°02'56"W	16.26'
L6	S65°31'16"E	80.00'
L7	S36°36'16"E	70.00'
L8	S45°08'15"E	77.89'
L9	S24°54'16"E	45.91'
L10	N58°19'55"W	79.59'
L11	N49°57'42"W	132.22'
L12	N24°12'08"W	91.96'
L13	N12°25'58"E	25.00'
L14	N66°56'28"E	44.94'
L15	N78°14'00"E	81.88'
L16	N64°53'48"E	100.15'
L17	N24°14'34"E	60.99'
L18	N69°25'55"W	81.45'
L19	N62°19'00"E	38.55'
L20	N74°09'19"E	30.50'
L21	S71°09'55"E	96.46'
L22	N88°30'46"E	95.81'
L23	S80°14'48"E	57.71'
L24	N77°39'43"W	39.15'
L25	N44°55'38"E	66.87'
L26	S64°32'08"W	100.98'
L27	N43°35'17"E	2.66'
L28	S78°51'11"E	107.14'
L29	S64°32'08"W	66.87'
L30	S73°44'04"E	77.47'
L31	N89°26'35"E	89.18'
L32	S89°00'00"E	80.00'
L33	S77°57'26"E	14.63'
L34	S43°40'55"W	9.28'
L35	N43°40'55"E	9.28'
L36	N64°04'44"E	28.14'
L37	S43°40'34"W	79.93'
L38	N57°18'53"E	80.00'
L39	N88°29'22"E	80.00'
L40	S69°05'37"E	83.56'
L41	N22°44'44"E	29.25'
L42	N61°12'08"E	95.10'
L43	S67°38'13"E	24.97'
L44	S38°10'28"E	70.30'
L45	N43°40'34"E	8.98'
L46	S69°29'22"E	4.56'
L47	N43°40'35"E	6.49'
L48	N46°19'26"W	37.53'
L49	S89°19'18"E	35.23'
L50	N25°53'03"W	35.89'
L51	S26°04'28"E	15.34'
L52	S43°40'34"W	10.00'
L53	N88°29'28"W	10.61'
L54	N88°29'28"W	10.01'
L55	N46°19'26"W	80.00'
L56	N82°12'56"E	61.20'
L57	N43°40'34"E	31.30'
L58	S74°28'52"E	90.00'
L59	N82°12'56"E	61.20'
L60	S26°04'27"E	15.00'
L61	N63°55'31"E	7.15'
L62	N63°41'18"E	16.12'
L63	S26°02'48"E	82.00'
L64	S18°40'04"W	8.30'
L65	S26°01'13"E	95.08'
L66	S62°22'26"E	103.03'
L67	S60°15'47"E	102.98'
L68	N43°40'34"E	100.90'
L69	N43°40'34"E	130.15'
L70	N64°04'44"E	126.18'
L71	S64°19'08"W	130.20'
L72	S25°48'00"E	106.73'
L73	S62°22'26"E	61.20'
L74	S60°22'26"E	78.70'
L75	S60°22'26"E	41.25'
L76	S59°42'58"E	106.28'
L77	N26°04'27"W	20.34'
L78	N46°26'22"E	99.79'
L79	S60°24'45"E	102.68'



SCALE: 1"=150'



LEGEND

- = DENOTES FOUND MONUMENT AS NOTED.
- XXX = KEY TO REFERENCE DEED TABLE
- ⊕ = SET BY PREVIOUS SURVEY, NOT TIED THIS SURVEY.

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	100.00'	157.08'	141.42'	N88°40'34"E	90°00'00"
C2	13.24'	14.92'	14.14'	N01°19'25"W	64°33'56"
C3	436.76'	10.00'	10.00'	N69°11'14"W	1°18'45"
C4	100.00'	30.69'	30.53'	N69°09'56"W	17°35'00"
C5	15.00'	27.24'	23.65'	N08°20'55"W	104°03'01"

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JULY 27, 1988
GREGORY D SPURLUCK
2307
EXPIRES: 06/30/2016

STATEWIDE LAND SURVEYING INC.
WWW.STATEWIDESURVEYING.COM
E.SURVEY@STATEWIDESURVEYING.COM

SWLS

DRAWN: 8/7/2015
G.D.S. DATE: 500 NW 20TH ST #101 GRESHAM, OR 97030
CHECKED: DATE: (F) 503.665.7988
G.D.S. 9-29-15 (D) 503.665.7777

SCALE: SHEET PROJECT NO.
1" = 150' 1 OF 1 2015-42



BOUNDARY DESCRIPTION

A TRACT OF LAND LYING WITHIN A PORTIONS OF LAND FOUND IN DEED 92-30263 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON MAY 19 1990, ALSO WITHIN A PORTION OF LAND FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO WITHIN A PORTION OF LAND FOUND IN QUIT CLAIM DEED 2005-050728 TO CORNELL V SAFTENCU, AS RECORDED IN CLACKAMAS COUNTY ON JUNE 03 2005, ALSO WITHIN A PORTION OF LAND FOUND IN WARRANTY DEED 76-22575 TO THE ROBINWOOD RIVIERE PROPERTY OWNERS' ASSOCIATION, AS RECORDED IN CLACKAMAS COUNTY ON JULY 6 1976, ALSO WITHIN THE LAND FOUND IN BARGAIN & SALE DEED ``99-088195 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY SEPTEMBER 7 1999, ALL SAID LAND SITUATED WITHIN THE P.M. RINEARSON DONATION LAND CLAIM (D.L.C.) AND INDEXED WITHIN THE SOUTH HALF OF SECTION 19 TOWNSHIP 2 SOUTH, RANGE 2 EAST OF CLACKAMAS COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS TO WIT:

COMMENCING AT STONE (STONE NO. 1) SET IN THE DIVISION LINE BETWEEN THE NORTH 1/2 AND SOUTH 1/2 OF THE P.M. RINEARSON D.L.C, AS FOUND BY MELDRUM IN 1908, SEE BLUE FIELD BOOK FILE 1905-1908 BOOK 21 PAGES 111-118 AND AS SHOWN ON SURVEY CS-7476 BY BERTELL MASON JR, FROM WHICH BEARS ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST AT A DISTANCE OF 1341.93 FEET, (CS-7476 SOUTH 64°00'00" WEST - 1341.42 FEET) A STONE (STONE NO. 2), ALSO FOUND BY MELDRUM, SAID SECOND STONE IS REFERENCED BY; A 1-1/4" GAS PIPE BEARING SOUTH 42°24'46" EAST AT A DISTANCE OF 8.91 FEET, (CS-7476 SOUTH 40°30' WEST - 9.08 FEET), A 1/2" REBAR BEARING SOUTH 67°30'24" WEST AT A DISTANCE OF 8.91 FEET, A 5/8" IRON ROD BEARING NORTH 54°04'56" WEST AT A DISTANCE OF 2.64 FEET,

THENCE, FROM SAID STONE NO. 1 SOUTH 64°04'44" WEST ALONG SAID DIVISION LINE FOR A DISTANCE OF 266.39 FEET TO THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION;

THENCE, CONTINUING ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST FOR A DISTANCE OF 150.90 FEET;

THENCE, DEPARTING SAID DIVISION LINE AND RUNNING 25 FEET OFFSET AND PARALLEL TO THE SOUTHERLY LINE OF LOT 12 THROUGH LOT 20 OF



THE PLAT OF ROBINWOOD RIVIERE AS RECORDED IN PLAT BOOK 63 AT PAGE 30 (PLAT NO. 1943), RECORDED AT CLACKAMAS COUNTY, THE FOLLOWING COURSES AND DISTANCES;

NORTH 69°45'26" WEST FOR A DISTANCE OF 162.92 FEET;
NORTH 88°29'26" WEST FOR A DISTANCE OF 553.56 FEET;

THENCE, DEPARTING SAID OFFSET LINE NORTH 01°30'34" EAST FOR A DISTANCE OF 25.00 FEET TO THE SOUTHERLY CORNER COMMON TO LOT 20 AND LOT 21 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, SOUTH 58°42'42" WEST FOR A DISTANCE OF 121.53 FEET TO A POINT THAT BEARS SOUTH 05°38'35" WEST A DISTANCE 25 FEET FROM THE SOUTHEASTERLY CORNER OF LOT 22 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, NORTH 80°09'46" WEST FOR A DISTANCE OF 146.57 FEET TO A POINT ON THE EASTERLY LINE OF THAT CERTAIN LANDS OF CORNELL V. SAFTENCU, BEING THE SOUTHEASTERLY CORNER OF PARCEL 1 AND THE NORTHEASTERLY CORNER OF PARCEL 2, AS RECORDED BY DOCUMENT NUMBER 2005-050728 RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE LINE COMMON OF PARCEL 1 AND PARCEL 2 OF SAID CORNELL V. SAFTENCU LANDS NORTH 46°20'01" WEST FOR A DISTANCE OF 89.88 FEET TO A POINT 10 FOOT OFFSET SOUTHEASTERLY FROM THE EASTERLY LINE OF LOT A OF THE PLAT OF RIVER COVE AS RECORDED IN PLAT BOOK 29 AT PAGE 10 (PLAT NO. 801), RECORDS OF CLACKAMAS COUNTY;

THENCE, 10 FEET PARALLEL AND OFFSET FROM THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28' 20" WEST FOR A DISTANCE OF 73.40 FEET TO A POINT ON THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LANDS, (DESCRIBED IN SAID DEED AS THE EASTERLY BANK OF THE WILLAMETTE RIVER AT MEAN HIGH WATER STAGE);

THENCE, ALONG THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LAND NORTH 25°48'00" WEST FOR A DISTANCE OF 10.69 FEET TO POINT ON THE SOUTHERLY PROJECTION OF THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE;

THENCE, ALONG THE SOUTHERLY PROJECTION OF THE EASTERLY LINE LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28'20" WEST FOR A



DISTANCE OF 53.35 FEET TO THE APPROXIMATE CENTERLINE AND
EASTERLY TERMINUS OF MELDRUM'S SLOUGH;

THENCE, ALONG THE APPROXIMATE CENTERLINE OF MELDRUM'S SLOUGH
THE FOLLOWING COURSES AND DISTANCES;

NORTH 53°21'33" WEST FOR A DISTANCE OF 132.73 FEET,
NORTH 73°31'11" WEST FOR A DISTANCE OF 107.14 FEET,
NORTH 84°32'58" WEST FOR A DISTANCE OF 56.87 FEET ,
NORTH 73°44'04" WEST FOR A DISTANCE OF 77.47 FEET,
SOUTH 89°26'35" WEST FOR A DISTANCE OF 89.18 FEET TO POINT ON
THE EASTERLY BANK OF THE WILLAMETTE RIVER AT ORDINARY LOW
WATER;

THENCE, ALONG THE EASTERLY BANK OF SAID WILLAMETTE RIVER AT
ORDINARY LOW WATER, THE FOLLOWING COURSES AND DISTANCES,
SOUTH 15°14'52" WEST FOR A DISTANCE OF 61.17 FEET,
SOUTH 09°25'35" EAST FOR A DISTANCE OF 81.45 FEET,
SOUTH 41°38'19" EAST FOR A DISTANCE OF 241.44 FEET TO THE
APPROXIMATE BEGINNING OF THAT PORTION OF THE NORTHEASTERLY
BANK KNOWN AS MELDRUM'S BAR PUBLIC BOATWAY ACCESS CHANNEL,
AT ORDINARY LOW WATER;

THENCE, ALONG THE NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AT ORDINARY LOW WATER, THE
FOLLOW COURSES AND DISTANCES,

SOUTH 45°40'44" EAST FOR A DISTANCE OF 89.19 FEET,
SOUTH 24°57'57" EAST FOR A DISTANCE OF 118.54 FEET,
SOUTH 36°50'29" EAST FOR A DISTANCE OF 142.92 FEET,
SOUTH 79°11'10" EAST FOR A DISTANCE OF 55.29 FEET,
SOUTH 35°30'55" EAST FOR A DISTANCE OF 84.31 FEET,
SOUTH 02°28'40" EAST FOR A DISTANCE OF 98.51 FEET,
SOUTH 36°06'16" EAST FOR A DISTANCE OF 375.04 FEET,

THENCE, DEPARTING SAID NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AND ALONG THE FOLLOWING
COURSES AND DISTANCES,

NORTH 54°00'05" EAST FOR A DISTANCE OF 250.71 FEET,
SOUTH 85°36'22" EAST FOR A DISTANCE OF 162.08 FEET,
SOUTH 66°00'51" EAST FOR A DISTANCE OF 159.66 FEET,
NORTH 73°39'32" EAST FOR A DISTANCE OF 295.47 FEET,
NORTH 60°17'53" EAST FOR A DISTANCE OF 151.38 FEET,
NORTH 79°07'45" EAST FOR A DISTANCE OF 166.42 FEET,



SOUTH 24°57'05" EAST FOR A DISTANCE OF 43.59 FEET TO THE SOUTHERLY LINE OF LAND DESCRIBED IN WARRANTY DEED 74-6136 TO STATE OF OREGON, AS RECORD IN CLACKAMAS COUNTY ON MARCH 14, 1974;

THENCE ALONG SOUTHERLY LINE OF SAID WARRANTY DEED 74-6136, NORTH 65°02'55" EAST FOR AS DISTANCE OF 300.54 FEET TO THE SOUTHWESTERLY CORNER OF LANDS FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE, OREGON AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO THE SOUTHWESTERLY CORNER OF TRACT B PLAT OF RINEARSON CREEK AS RECORD IN PLAT BOOK 136 AT PAGE 25 (PLAT NO. 4163), RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE SOUTHERLY LINE OF LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK, NORTH 63°44'30' EAST FOR A DISTANCE 199.94 TO A POINT 10 FOOT OFFSET FROM THE EASTERLY LINE OF SAID TRACT B;

THENCE, NORTH 25°52'21" WEST OFFSET 10 FEET AND PARALLEL TO THE EASTERLY LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK FOR A DISTANCE OF 305.37 FEET TO A POINT ON THE SOUTHERLY LINE OF LOT 11 OF SAID PLAT OF RINEARSON CREEK;

THENCE ALONG THE SOUTHERLY LINE OF LOT 11, 10 AND 9 OF SAID PLAT OF RINEARSON CREEK;
NORTH 86°24'20" WEST FOR A DISTANCE OF 58.82 FEET,
NORTH 66°44'30" WEST FOR A DISTANCE OF 44.13 FEET,
SOUTH 86°24'24" WEST FOR A DISTANCE OF 58.33 FEET TO THE SOUTHWESTERLY CORNER OF LOT 9 OF SAID PLAT OF RINEARSON CREEK;

THENCE, DEPARTING SAID PLAT OF RINEARSON CREEK SOUTH 63°55'33" WEST FOR A DISTANCE OF 10 FEET AND OFFSET FROM SAID PLAT OF RINEARSON CREEK;

THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO THE WESTERLY LINE OF LOT 9, 8, 7, 6, 5, 4 OF SAID PLAT OF RINEARSON CREEK NORTH 26°04'27" WEST FOR A DISTANCE OF 220.49 FEET TO A POINT 10 FOOT OFFSET FROM THE SOUTHERLY LINE OF THE LAND OF NANCY JO TOWLE AND CARL E. POSTON AS RECORDED BY STATUTORY BARGAIN AND SALE DEED DOCUMENT NUMBER 2010-047066 RECORDS OF CLACKAMAS COUNTY;



THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO SAID DEED SOUTH 64°20'07" WEST FOR A DISTANCE OF 130.10 FEET;

THENCE, CONTINUING AT 10 FOOT OFFSET AND PARALLEL TO SAID DEED NORTH 26°07'36" WEST FOR A DISTANCE OF 124.88 FEET TO POINT ON SAID DIVISION LINE AND THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION, SAID DESCRIPTION ENCLOSES 33.156 ACRES, MORE OR LESS.

SUBJECT TO EASEMENTS AND ENCUMBRANCES OF RECORD, IF ANY.



**Appendix G-3b -
Form of Conservation Easement Deed -
Saftencu Property**

[Note: This conservation easement deed form is subject to revision due to the selection of a conservation easement holder.]

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:



Property Address: 19710 SE Cottonwood St., Milwaukie, OR 97267
Tax Parcel IDs: 00526363
Deed Reference(s): 2005-050728
County Recording No. _____

Conservation Easement Deed
(Restoration Project)

THIS CONSERVATION EASEMENT DEED ("Conservation Easement") is made this
____ day of _____, 2018, by CORNELL SAFTENCU (the "Grantor"), in favor of
_____ 1 ("Grantee").

RECITALS:

- A. Grantor is the fee simple owner of certain property located in Clackamas County, Oregon, which property is more particularly described in that certain Quitclaim Deed made by Luanne K. Evans on December 22, 2004 and recorded in the Recorder’s Office for Clackamas County, Oregon as Instrument Number 2005-050728 (the “Saftencu Land”).
- B. Rinearson Natural Area, LLC, an Oregon limited liability company (“Rinearson”), intends to implement a natural resource damage assessment restoration project known as the Rinearson Natural Area Restoration Project (the “Project”) on certain property located in the City of Gladstone, Clackamas County, Oregon containing approximately 33.156 acres, including a portion of the Saftencu Land, and being more particularly shown on Attachment “A-1” and described on Attachment “A-2” (the “Project Land”). Attachments “A-1” and “A-2” are incorporated herein by reference. The portion of the

¹ The grantee will be a non-profit organization, an Indian Tribe or a governmental entity.

Saftencu Land included in the Project is hereafter referred to as the "Property". Rinearson and Grantor have entered into an agreement by which Rinearson has the sole and exclusive right to conduct all activities on the Property necessary to complete the Project (the "Project Agreement"). Pursuant to the Project Agreement, Grantor has agreed to restrict the Property in order to protect the completed Project in perpetuity.

- C. Grantee is an organization qualified by ORS 271.715 (3) to hold conservation easements.
- D. This agreement is a conservation easement as provided for by ORS 271.715 to 271.795 and will run with the land.
- E. This Conservation Easement Deed is being executed and delivered pursuant to a Habitat Development Plan for the Rinearson Natural Area Restoration Project (the "Habitat Development Plan") and Restoration Project Memorandum of Agreement (collectively, the "Conservation Agreement"). The Habitat Development Plan and long-term stewardship plan, the "Rinearson Natural Area Long-Term Stewardship Plan" (the "Stewardship Plan") have been specifically developed for the Property. Grantor and Grantee each have and shall maintain in their possession a copy of the Conservation Agreement, the Stewardship Plan, and the Habitat Development Plan, all of which are fully incorporated herein by reference.
- F. The Property provides or is capable of providing significant ecological and habitat values that benefit endangered, threatened, and other ecologically important species (collectively, "Conservation Values"), as set forth in the Conservation Agreement, including "Essential Fish Habitat" for all life stages and associated habitat, for, among other things, Lower Columbia River steelhead (*Oncorhynchus mykiss*), Lower Columbia River Chinook salmon (*O. tshawytscha*), Columbia River chum salmon (*O. keta*), Lower Columbia River coho salmon (*O. kisutch*), Upper Willamette River Chinook salmon, and Upper Willamette River steelhead (each a "Target Species").
- G. The Portland Harbor Natural Resource Trustee Council ("Trustee Council") consists of the following members: the National Oceanic and Atmospheric Administration ("NOAA") on behalf of the United States Department of Commerce, the United States Fish and Wildlife Service ("USFWS") on behalf of the United States Department of the Interior, the Oregon Department of Fish and Wildlife ("ODFW") on behalf of the State of Oregon, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe. As referenced to in this Easement Deed, "Trustee Council" means all of the above listed Trustee Council members. The Trustee Council is conducting a damage assessment for the Portland Harbor Superfund site ("Site"), and anticipates bringing claims for injuries to natural resources under the Comprehensive Environmental Response Compensation and Liability Act, 42 U.S.C. §§ 9601, *et seq.* ("CERCLA"), the Oil Pollution Act of 1990, 33 U.S.C. §§ 9601, *et seq.* and other applicable federal and state law.

- H. Additionally, NOAA and USFWS exercise jurisdiction with respect to the conservation, protection, restoration, enhancement, and management of threatened and endangered species and habitat pursuant to various federal laws including the Endangered Species Act, 16 U.S.C. §§ 1531, *et seq.* ("ESA"), the Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661-666c, the Magnuson-Stevens Act ("MSA") as amended (16 U.S.C. §§ 1801, *et seq.*) and the Fish and Wildlife Act of 1956 (16 U.S.C. §§ 742(f), *et seq.*).
- I. Grantor intends to convey to Grantee the right to preserve, protect, sustain, and enhance and/or restore the Conservation Values of the Property in perpetuity.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

NOW, THEREFORE, in consideration of the above recitals and the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of the United States and the State of Oregon, Grantor hereby voluntarily grants and conveys to Grantee the Conservation Easement in perpetuity over the Property, consistent with the Conservation Agreement, on the terms set out below.

1. Purpose. The purpose of this Conservation Easement is to ensure that the Property will be retained forever in a condition contemplated by the Conservation Agreement and to prevent any use of the Property that will significantly impair or interfere with the Conservation Values of the Property. Grantor intends that this Conservation Easement will confine and restrict the use of the Property to such activities including, without limitation, those involving the preservation, conservation, and enhancement of native species and their habitats in a manner consistent with the purposes of this Conservation Easement and the Conservation Agreement.

2. Rights of Grantee. To accomplish the purposes of this Conservation Easement, Grantor hereby grants and conveys the following rights to Grantee for the duration of the Conservation Easement, along with a third-party right of enforcement to the Trustee Council or their designee(s) as third-party beneficiaries hereof, consistent with the Conservation Agreement:

A. To preserve, protect, sustain, enhance, and/or restore the Conservation Values of the Property.

B. To enter upon the Property at reasonable times, subject to giving Grantor forty-eight (48) hours' notice, except in cases where Grantee and/or the Trustee Council or either of their designees determine that immediate entry is required to prevent, terminate, or mitigate a violation of the Agreement, to monitor Grantor's compliance with and to otherwise enforce the terms of this Conservation Easement; provided that Grantee, the Trustee Council, or either of their designees, as applicable, shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Property.

C. To prevent any activity on or use of the Property that is inconsistent with the habitat conservation purposes of this Conservation Easement and to require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use or activity that is inconsistent with the purposes of this Conservation Easement.

D. All mineral, air and water rights necessary to preserve, protect and sustain the biological resources and Conservation Values of the Property, unless specifically excluded from this Conservation Easement, including Grantor's right, title and interest in and to any waters consisting of: (a) any riparian water rights appurtenant to the Property; (b) any appropriative water rights held by Grantor to the extent those rights are appurtenant to the Property; (c) any waters, the rights to which are secured under contract between the Grantor and any irrigation or water district, to the extent such waters are customarily applied to the Property; and (d) any water from wells that are in existence or may be constructed in the future on the Property or on those lands described as excepted from the Property in the legal description and that were historically used by the Grantor to maintain the Property in a flooded condition (collectively, "Easement Waters"). The Easement Waters, mineral, air and water rights are limited to the amount of Grantor's waters reasonably required to maintain the Conservation Values of the Property.

E. All present and future development rights.

3. Prohibited Uses. Any activity on or use of the Property inconsistent with the conservation purposes of this Conservation Easement and the Conservation Agreement is prohibited. Without limiting the generality of the foregoing, Grantor, its personal representatives, heirs, successors, assigns, employees, agents, lessees, licensees and invitees are expressly prohibited from doing or permitting any of the following on the Property unless specifically authorized by the Grantee, the Habitat Development Plan, the Stewardship Plan, or the Conservation Agreement:

A. Construction, reconstruction, or placement of any permanent building or structure.

B. Unseasonable watering; use of fertilizers, biocides, or other agricultural chemicals; incompatible fire protection activities; and any and all other uses which may adversely affect the conservation purposes of this Conservation Easement.

C. Grazing or agricultural activity of any kind.

D. Commercial or industrial uses.

E. Depositing or accumulating soil, trash, ashes, refuse, waste, bio-solids, or any other material.

F. Filling, dumping, excavating, draining, dredging, mining, drilling, removing, exploring for or extracting minerals, loam, gravel, soil, rock, sand or other material on or to a depth of 100 feet below the surface of the Property, or granting or authorizing surface entry for any of these purposes on the Property.

G. Altering the surface or general topography of the Property, including building roads, paving, or otherwise covering the Property with concrete, asphalt, or any other impervious material.

H. Removing, destroying, or cutting trees, shrubs, or other vegetation, except (1) to the extent otherwise consistent with the Habitat Development Plan, Stewardship Plan and Conservation Agreement, and (2) as required for: (i) fire breaks; (ii) maintenance of existing foot trails or roads; (iii) prevention or treatment of disease; (iv) utility line clearance; (v) levee easement clearance; or (vi) invasive species management. Grantor shall provide prior notice and consult with Grantee and the Trustee Council, or their respective designees, prior to cutting or removing trees, shrubs or other vegetation for the purposes authorized in this section, except in the event of an emergency, in which case Grantor shall notify Grantee and the Trustee Council as soon as practicable.

I. Use of motorized vehicles, including off-road vehicles, except on existing roadways.

J. Transferring any water right potentially beneficial to the maintenance or restoration of the biological resources of the Property.

K. Planting, introduction, or dispersal of invasive or exotic plant or animal species.

L. Manipulating, impounding or altering any natural watercourse, body of water or water circulation on the Property, other than those actions set forth under the Habitat Development Plan, and any activities or uses that are or are likely to be detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters.

M. Permitting a general right of access to the Property, provided, however, volunteer organizations, education-related groups, news media and similar third-parties may be allowed to temporarily enter the Property for the limited purposes of inspection, education or public relations. All rights of access permitted under this section shall be in accordance with and subject to the provisions of and restrictions set forth in this Conservation Easement Deed.

N. Trapping native species, except in consultation with and by approval of the Grantee.

O. Hunting.

4. Grantor's Duties. As the owner of the Property, Grantor shall remain responsible for preventing the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Property and are inconsistent with the Conservation Agreement. Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Property and are inconsistent with the Conservation Agreement, Stewardship Plan and Habitat Development Plan.

5. Grantor's Reserved Rights. All rights accruing from Grantor's ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited herein and are not inconsistent with the purposes of this Conservation Easement are reserved to Grantor and Grantor's personal representatives, heirs, successors, and assigns.

6. Remedies for Violation and Corrective Action. If Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) determines there is a violation of the terms of this Conservation Easement or that a violation is threatened, written notice of such violation and a demand for corrective action sufficient to cure the violation shall be given to Grantor or Grantee, whichever is the violating party. Within ten (10) days of the receipt of written notice of such violation, the notice recipient shall provide a written response to each of the parties to this Conservation Easement, and to the Trustee Council or the Trustee Council's designee(s), pursuant to the "Notices" section below of this Conservation Easement. In any instance, measures to cure the violation shall be reviewed and approved by the Trustee Council or the Trustee Council's designee(s). If a violation is not cured within thirty (30) days after receipt of written notice and demand, or if the cure reasonably requires more than thirty (30) days to complete and there is failure to begin the cure within the thirty-day period or failure to continue diligently to complete the cure, the parties shall first engage in the following dispute resolution process to resolve any disputes arising related to the violation and cure. The Grantor, Grantee, or Trustee Council or the Trustee Council's designee(s), shall issue a written Notice of Deficiencies to all Parties, detailing the claimed deficiencies concerning the violation and cure. The Notice of Deficiencies shall identify a higher-level administrative officer within the issuing party's organization who shall represent the party in the dispute resolution process ("Dispute Resolution Representative"). The Notice of Deficiencies shall include the Dispute Resolution Representative's contact information. Within fourteen (14) days of the receipt of the Notice of Deficiencies, the remaining parties shall identify corresponding Dispute Resolution Representatives within their respective organizations and communicate to schedule a joint conference to be held at the earliest opportunity. The Dispute Resolution Representatives shall engage in a reasonable, good-faith effort to review the dispute and decide upon a mutually agreeable cure, which shall be diligently implemented. If, after a reasonable period of time, the Dispute Resolution Representatives are unable to reach agreement, the Grantor, Grantee, or the Trustee Council or the Trustee Council's designee(s) may bring an action at law or in equity in a court of competent jurisdiction to enforce compliance with the terms of this Conservation Easement, to recover any damages to which Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) may be entitled for violation of the terms of this Conservation Easement or for any injury to the Conservation Values of the Property, or for other equitable relief, including, but not limited to, the restoration of the Property to the condition in which it existed prior to any violation or injury. Without limiting violator's liability therefore, any damages recovered may be applied to the cost of undertaking any corrective action on the Property.

6.1 Injunctive Relief. If Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s), in each its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) may pursue its remedies under this Section without prior notice or without waiting for the period provided for cure to expire to enjoin the violation, *ex parte* as necessary, by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies, and to require the restoration of the Property to the condition that existed prior to any such injury. The remedies described in this Section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity. The failure of Grantee, Grantor, the Trustee Council or the Trustee Council's designee(s) to

discover a violation or to take immediate legal action shall not bar taking such action at a later time.

6.2 Standing. If at any time Grantee, Grantor, or any successor in interest or subsequent transferee uses or threatens to use the Property for purposes not in conformance with the stated conservation purposes contained herein, or releases or threatens to abandon this Conservation Easement in whole or in part, then, the Trustee Council or the Trustee Council's designee(s) shall have standing as an interested party in any proceeding affecting this Conservation Easement.

6.3 Costs of Enforcement. All reasonable costs incurred in enforcing the terms of this Conservation Easement including, but not limited to, costs of suit and attorneys' fees, and any costs of restoration necessitated by violation or negligence under the terms of this Conservation Easement shall be borne by the violator.

6.4 Enforcement Discretion. Enforcement of the terms of this Conservation Easement shall be at the discretion of Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s), and any forbearance to exercise rights of enforcement under this Conservation Easement in the event of any breach of any term of this Conservation Easement shall not be deemed or construed to be a waiver of such term or of any subsequent breach of the same or any other term of this Conservation Easement or of any rights under this Conservation Easement. No delay or omission in the exercise of any right or remedy upon any breach shall impair such right or remedy or be construed as a waiver.

6.5 Catastrophic Acts Beyond Grantee's or Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) to bring any action for any injury to or change in the Property resulting from causes beyond Grantee or Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken by Grantee or Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes. The Grantor, Grantee, and Trustee Council or the Trustee Council's designee(s) shall be notified of the catastrophic event within forty-eight (48) hours of its discovery. The Grantor, Grantee, and the Trustee Council or the Trustee Council's designee(s) shall meet as soon as reasonably possible to determine a response to such catastrophic event. In the interim, the Grantor shall continue to the fullest extent possible to manage and maintain the Property consistent with the conservation purposes of the Conservation Easement and Conservation Agreement.

6.6 Third-Party Beneficiary Right of Enforcement. All rights and remedies conveyed under this Conservation Easement to Grantee shall extend to and are independently enforceable by the Trustee Council or its designee(s) as a third-party beneficiary. These rights of enforcement are in addition to, and do not limit, the rights of enforcement under the Conservation Agreement.

7. Costs and Liabilities. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property, including transfer costs, costs of title and documentation review, and maintenance of

adequate liability insurance coverage. Grantor remains solely responsible for obtaining any applicable permits and approvals required for any activity or use permitted on the Property by this Conservation Easement, and any such activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency laws, statutes, ordinances, rules, regulations, orders and requirements. Nothing in this Section is intended to relieve Grantee of its obligations under the Habitat Development Plan, Conservation Agreement, or the Stewardship Plan.

7.1 Taxes: No Liens. Grantor shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively, "taxes"), including any taxes imposed upon, or incurred as a result of, this Conservation Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantor shall keep Grantee's interest in the Property free from any liens, including those arising out of any obligations incurred by Grantor for any labor or materials furnished or alleged to have been furnished at or for use on the Property.

7.2 Hold Harmless. Grantor shall hold harmless, indemnify, and defend Grantee, Trustee Council or the Trustee Council's designee(s), and each of their respective members, directors, officers, employees, agents, and contractors and the heirs, personal representatives, successors, and assigns (collectively, the "Indemnified Parties"), from, for, and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, orders, liens, or judgments, including, without limitation, reasonable attorneys' fees, arising from or in any way connected with (a) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, unless due to the negligence of any of the Indemnified Parties (b) the obligations, covenants, representations, and warranties of this Conservation Easement relating to Costs and Liabilities of this Section 7, and c) breach or noncompliance by Grantor with respect to any obligations of Grantor under this Conservation Easement.

7.3 Grantee shall hold harmless, indemnify, and defend Grantor and the Trustee Council or the Trustee Council's designee(s), and each of their respective members, directors, officers, employees, agents, and contractors and the heirs, personal representatives, successors, and assigns from and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, orders, liens, or judgments, including, without limitation, reasonable attorneys' fees, arising from or in any way connected with injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property arising from or in connection with any act or omission by Grantee or any employee, agent or contractor of Grantee, unless due to the negligence of any of the Indemnified Parties.

7.4 Grantor and Grantee shall maintain in force general liability insurance with respect to the Property with minimum liability amounts of not less than \$1,000,000.00 per occurrence of bodily injury or property damage (which is intended only as a minimum and not a limit to liability), each written on an occurrence basis, each including contractual liability coverage with respect to each party's indemnification obligations set forth above, and each naming the other and its Indemnified Parties as additional insureds. Such insurance shall be

primary and noncontributory with any other coverage held by the additional insured. Upon request, either party will provide the other with a certificate evidencing such coverage.

8. Best and Most Necessary Use. The habitat conservation purposes of the Conservation Easement are presumed to be the best and most necessary public use.

9. Conservation Easement Assignment or Transfer. This Conservation Easement may be assigned or transferred by Grantee or any successor in interest upon written approval of the Trustee Council or its designee(s) and Grantor, which approval shall not be unreasonably withheld, but Grantee shall give Grantor and the Trustee Council or the Trustee Council's designee(s) at least thirty (30) days prior written notice of the transfer. Grantee or any successor in interest may assign or transfer its rights and obligations under this Conservation Easement only to an entity or organization as approved by the Trustee Council or the Trustee Council's designee(s) and Grantor. As a condition of such assignment or transfer, Grantee shall require that the conservation purposes of this Conservation Easement and the Conservation Agreement are carried out and notice of such restrictions, including the Conservation Agreement, shall be recorded in the County where the Property is located. The failure of Grantee to perform any act required by this paragraph shall not impair the validity of this Conservation Easement or its enforcement in any way.

10. Subsequent Property Transfer. This Conservation Easement may be assigned or transferred by Grantor or any successor in interest upon written approval of the Trustee Council or its designee(s), which approval shall not be unreasonably withheld. Grantor agrees to give Grantee and the Trustee Council or the Trustee Council's designee(s) written notice of its intent to transfer any interest in this Conservation Easement at least thirty (30) days prior to the date of such transfer. Grantor or any successor in interest may assign or transfer its rights and obligations under this Conservation Easement only to an entity or organization as approved by the Trustee Council or its designee(s). Grantor further agrees to incorporate the terms of this Conservation Easement in any deed or other legal instrument by which Grantor divests itself of any interest in all or a portion of the Property, including, without limitation, a leasehold interest. Grantee or the Trustee Council or the Trustee Council's designee(s) shall have the right to prevent subsequent transfers in which prospective subsequent claimants or transferees are not given notice of the terms, covenants, conditions and restrictions of this Conservation Easement or whenever a subsequent Property transfer will result in a merger of the Conservation Easement and the Property in a single Property owner (thereby extinguishing the Conservation Easement) if no method or mechanism deemed adequate to preserve, protect, and sustain the Property in perpetuity has been established. The failure of Grantor to perform any act required by this section shall not impair the validity of this Conservation Easement or limit its enforcement in any way.

11. Estoppel Certificates. Grantee shall, within thirty (30) business days after receiving Grantor's request therefore, execute and deliver to Grantor a document certifying, to the best knowledge of the person executing the document, that Grantor is in compliance with any obligation of Grantor contained in this Conservation Easement, or otherwise evidencing the status of such obligation to the extent of Grantee's knowledge thereof, as may be reasonably requested by Grantor.

12. Notices. Any notice, demand, request, consent, approval, or other communication that Grantor, Grantee, or the Trustee Council or the Trustee Council's designee(s) desires or is required to give to the others shall be in writing and either served personally or sent by first-class mail, postage prepaid or by recognized overnight courier that guarantees next-day delivery addressed as follows:

To Grantor: Cornell Saftencu
19710 SE Cottonwood St.
Milwaukie, OR 97267

To Grantee: _____²

To Trustee Council: NOAA
Restoration Center
1201 NE Lloyd Blvd., Suite 1100
Portland, OR 97232

United States Fish and Wildlife Service
Pacific Region
Attn: Field Supervisor
911 NE 11th Ave.# 1
Portland, OR 97232

Oregon Department of Fish and Wildlife
3406 Cherry Avenue N.E. Salem, OR 97303
Confederated Tribes of the Grand Ronde

Confederated Tribes of the Grand Ronde Community of Oregon
Attn: Michael Karnosh, Ceded Lands Program Manager
9615 Grand Ronde Road
Grand Ronde, Oregon 97347

Confederated Tribes of Siletz Indians
ATTN: Natural Resources Manager
P.O. Box 549
Siletz, OR 97380

Confederated Tribes of the Umatilla Indian Reservation
Nixyaawii Governance Center
46411 Timine Way
Pendleton, OR 97801

² The grantee's contact information will be inserted once a conservation easement holder is identified.

Confederated Tribes of the Warm Springs Reservation of Oregon
1107 Wasco Street
Warm Springs, OR 97761

Nez Perce Tribe
P.O. Box 305
Lapwai, ID 83540

or to such other address as a party shall designate by written notice to the others. Notice shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by first class mail, five (5) days after deposit into the United States mail.

13. Recordation. Grantor shall submit an original, signed and notarized Conservation Easement to Grantee and Grantee shall promptly record this instrument in the official records of the County in which the Property is located, and shall thereafter promptly provide a conformed copy of the recorded Conservation Easement to the Grantor and to the Trustee Council or the Trustee Council's designee(s). Grantee may re-record at any time as may be required to preserve its rights in this Conservation Easement.

14. Amendment. This Conservation Easement may be amended by Grantor and Grantee only by mutual written agreement and written approval by the Trustee Council or the Trustee Council's designee(s). Any such amendment shall be consistent with the purposes of this Conservation Easement and shall not affect its perpetual duration, and Grantee shall promptly record this amended instrument in the official records of the County in which the Property is located, and shall thereafter promptly provide a conformed copy of the recorded amended Conservation Easement to the Grantor and to the Trustee Council or its designee(s).

15. No Warranty; AS IS. Grantee agrees, for itself, its successors and assigns, that it is accepting this grant on an AS IS basis, without reliance upon any representation or warranty of Grantor, and relying solely upon Grantee's own expertise, experience and investigation of the Property and Grantee expressly disclaims, waives and releases any warranty or representation, express or implied, by Grantor or any representative of Grantor, including as to title, condition, or suitability for any particular purpose.

16. Additional Interests. Except for another conservation easement established in accordance with the Conservation Agreement and which is not adverse to the Conservation Easement established herein, Grantor shall not grant any additional interest in the Property that is not subordinate to this Conservation Easement, nor shall Grantor grant, transfer, abandon, or relinquish any water or water right associated with the Property, including without limitation any Easement Waters, without the prior written authorization of Grantee and the Trustee Council or the Trustee Council's designee(s). Such consent may be withheld if the proposed interest or transfer is inconsistent with the purposes of this Conservation Easement and the Conservation Agreement or will impair or interfere with the Conservation Values of the Property. This Section shall not prohibit the transfer of a fee title or leasehold interest in the Property that is otherwise subject to and complies with the terms of this Conservation Easement.

17. Third-Party Beneficiaries and Access. Grantor and Grantee acknowledge that the Trustee Council and its designee(s) are third-party beneficiaries of this Conservation Easement with rights to enforce all of the provisions of this Conservation Easement and with rights of access to the Property for monitoring or conservation activities contemplated by this Conservation Easement or the Conservation Agreement. Except in cases where the Trustee Council or its designee(s) determine that immediate entry is required to prevent, terminate, or mitigate a violation of the Agreement, such access is subject to providing the Grantor with forty-eight (48) hours' notice.

18. Condemnation. If all or any part of the Property is the subject of an eminent domain proceeding, Grantor will take reasonable actions to defend the Property and the Conservation Values associated with it. In the event that said efforts are unsuccessful, Grantor shall take all appropriate actions to recover the full value of the taking and all incidental or direct damages resulting from the taking (the "Proceeds"). Grantee shall receive the portion of the Proceeds equal to the value of the conservation easement. Disagreements regarding the appropriate response under this Section shall be resolved in accordance with the Dispute Resolution provision in this Conservation Easement.

19. No Merger. This Conservation Easement shall be of perpetual duration, it being the express intent of the Parties that this Easement not be extinguished by, or merged into, any other interest or estate in the Property now or hereafter held by Grantee or any other Party.

20. General Provisions.

20.1 Controlling Law. The interpretation and performance of this Conservation Easement shall be governed by the laws of the State of Oregon and applicable Federal law including the ESA.

20.2 Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Conservation Easement shall be liberally construed in favor of the deed to affect the purposes of this Conservation Easement. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

20.3 Severability. If any provision of this Conservation Easement or the application thereof is found to be invalid the remaining provisions of this Conservation Easement or the application of such provisions other than that found to be invalid shall not be affected thereby.

20.4 Entire Agreement. This Conservation Easement and the Conservation Agreement incorporated by reference herein, including all of the exhibits thereto, together set forth the entire agreement of the parties and supersede all prior discussions, negotiations, understandings, or agreements relating to the Conservation Easement, all of which are merged herein. No alteration or variation of this instrument shall be valid or binding unless contained in an amendment in accordance with the provisions herein.

20.5 No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

20.6 Successors. The covenants, terms, conditions, and restrictions of this Conservation Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall constitute a servitude running in perpetuity with the Property. This Conservation Easement shall remain valid consistent with the terms of ORS 271.745.

20.7 Termination of Rights and Obligations. A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or Property, except that liability for acts, omissions or breaches occurring prior to transfer shall survive transfer.

20.8 Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon its construction or interpretation.

20.9 Counterparts. The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

IN WITNESS WHEREOF, Grantor has executed and delivered this Conservation Easement Deed as of the day and year first above written.

GRANTOR:

By: _____

Title: _____

Date: _____

GRANTEE:

By: _____

Title: _____

Date: _____



BOUNDARY DESCRIPTION

A TRACT OF LAND LYING WITHIN A PORTIONS OF LAND FOUND IN DEED 92-30263 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON MAY 19 1990, ALSO WITHIN A PORTION OF LAND FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO WITHIN A PORTION OF LAND FOUND IN QUIT CLAIM DEED 2005-050728 TO CORNELL V SAFTENCU, AS RECORDED IN CLACKAMAS COUNTY ON JUNE 03 2005, ALSO WITHIN A PORTION OF LAND FOUND IN WARRANTY DEED 76-22575 TO THE ROBINWOOD RIVIERE PROPERTY OWNERS' ASSOCIATION, AS RECORDED IN CLACKAMAS COUNTY ON JULY 6 1976, ALSO WITHIN THE LAND FOUND IN BARGAIN & SALE DEED ``99-088195 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY SEPTEMBER 7 1999, ALL SAID LAND SITUATED WITHIN THE P.M. RINEARSON DONATION LAND CLAIM (D.L.C.) AND INDEXED WITHIN THE SOUTH HALF OF SECTION 19 TOWNSHIP 2 SOUTH, RANGE 2 EAST OF CLACKAMAS COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS TO WIT:

COMMENCING AT STONE (STONE NO. 1) SET IN THE DIVISION LINE BETWEEN THE NORTH 1/2 AND SOUTH 1/2 OF THE P.M. RINEARSON D.L.C, AS FOUND BY MELDRUM IN 1908, SEE BLUE FIELD BOOK FILE 1905-1908 BOOK 21 PAGES 111-118 AND AS SHOWN ON SURVEY CS-7476 BY BERTELL MASON JR, FROM WHICH BEARS ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST AT A DISTANCE OF 1341.93 FEET, (CS-7476 SOUTH 64°00'00" WEST - 1341.42 FEET) A STONE (STONE NO. 2), ALSO FOUND BY MELDRUM, SAID SECOND STONE IS REFERENCED BY; A 1-1/4" GAS PIPE BEARING SOUTH 42°24'46" EAST AT A DISTANCE OF 8.91 FEET, (CS-7476 SOUTH 40°30' WEST - 9.08 FEET), A 1/2" REBAR BEARING SOUTH 67°30'24" WEST AT A DISTANCE OF 8.91 FEET, A 5/8" IRON ROD BEARING NORTH 54°04'56" WEST AT A DISTANCE OF 2.64 FEET,

THENCE, FROM SAID STONE NO. 1 SOUTH 64°04'44" WEST ALONG SAID DIVISION LINE FOR A DISTANCE OF 266.39 FEET TO THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION;

THENCE, CONTINUING ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST FOR A DISTANCE OF 150.90 FEET;

THENCE, DEPARTING SAID DIVISION LINE AND RUNNING 25 FEET OFFSET AND PARALLEL TO THE SOUTHERLY LINE OF LOT 12 THROUGH LOT 20 OF



THE PLAT OF ROBINWOOD RIVIERE AS RECORDED IN PLAT BOOK 63 AT PAGE 30 (PLAT NO. 1943), RECORDED AT CLACKAMAS COUNTY, THE FOLLOWING COURSES AND DISTANCES;

NORTH 69°45'26" WEST FOR A DISTANCE OF 162.92 FEET;
NORTH 88°29'26" WEST FOR A DISTANCE OF 553.56 FEET;

THENCE, DEPARTING SAID OFFSET LINE NORTH 01°30'34" EAST FOR A DISTANCE OF 25.00 FEET TO THE SOUTHERLY CORNER COMMON TO LOT 20 AND LOT 21 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, SOUTH 58°42'42" WEST FOR A DISTANCE OF 121.53 FEET TO A POINT THAT BEARS SOUTH 05°38'35" WEST A DISTANCE 25 FEET FROM THE SOUTHEASTERLY CORNER OF LOT 22 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, NORTH 80°09'46" WEST FOR A DISTANCE OF 146.57 FEET TO A POINT ON THE EASTERLY LINE OF THAT CERTAIN LANDS OF CORNELL V. SAFTENCU, BEING THE SOUTHEASTERLY CORNER OF PARCEL 1 AND THE NORTHEASTERLY CORNER OF PARCEL 2, AS RECORDED BY DOCUMENT NUMBER 2005-050728 RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE LINE COMMON OF PARCEL 1 AND PARCEL 2 OF SAID CORNELL V. SAFTENCU LANDS NORTH 46°20'01" WEST FOR A DISTANCE OF 89.88 FEET TO A POINT 10 FOOT OFFSET SOUTHEASTERLY FROM THE EASTERLY LINE OF LOT A OF THE PLAT OF RIVER COVE AS RECORDED IN PLAT BOOK 29 AT PAGE 10 (PLAT NO. 801), RECORDS OF CLACKAMAS COUNTY;

THENCE, 10 FEET PARALLEL AND OFFSET FROM THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28' 20" WEST FOR A DISTANCE OF 73.40 FEET TO A POINT ON THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LANDS, (DESCRIBED IN SAID DEED AS THE EASTERLY BANK OF THE WILLAMETTE RIVER AT MEAN HIGH WATER STAGE);

THENCE, ALONG THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LAND NORTH 25°48'00" WEST FOR A DISTANCE OF 10.69 FEET TO POINT ON THE SOUTHERLY PROJECTION OF THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE;

THENCE, ALONG THE SOUTHERLY PROJECTION OF THE EASTERLY LINE LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28'20" WEST FOR A



DISTANCE OF 53.35 FEET TO THE APPROXIMATE CENTERLINE AND
EASTERLY TERMINUS OF MELDRUM'S SLOUGH;

THENCE, ALONG THE APPROXIMATE CENTERLINE OF MELDRUM'S SLOUGH
THE FOLLOWING COURSES AND DISTANCES;

NORTH 53°21'33" WEST FOR A DISTANCE OF 132.73 FEET,
NORTH 73°31'11" WEST FOR A DISTANCE OF 107.14 FEET,
NORTH 84°32'58" WEST FOR A DISTANCE OF 56.87 FEET ,
NORTH 73°44'04" WEST FOR A DISTANCE OF 77.47 FEET,
SOUTH 89°26'35" WEST FOR A DISTANCE OF 89.18 FEET TO POINT ON
THE EASTERLY BANK OF THE WILLAMETTE RIVER AT ORDINARY LOW
WATER;

THENCE, ALONG THE EASTERLY BANK OF SAID WILLAMETTE RIVER AT
ORDINARY LOW WATER, THE FOLLOWING COURSES AND DISTANCES,
SOUTH 15°14'52" WEST FOR A DISTANCE OF 61.17 FEET,
SOUTH 09°25'35" EAST FOR A DISTANCE OF 81.45 FEET,
SOUTH 41°38'19" EAST FOR A DISTANCE OF 241.44 FEET TO THE
APPROXIMATE BEGINNING OF THAT PORTION OF THE NORTHEASTERLY
BANK KNOWN AS MELDRUM'S BAR PUBLIC BOATWAY ACCESS CHANNEL,
AT ORDINARY LOW WATER;

THENCE, ALONG THE NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AT ORDINARY LOW WATER, THE
FOLLOW COURSES AND DISTANCES,

SOUTH 45°40'44" EAST FOR A DISTANCE OF 89.19 FEET,
SOUTH 24°57'57" EAST FOR A DISTANCE OF 118.54 FEET,
SOUTH 36°50'29" EAST FOR A DISTANCE OF 142.92 FEET,
SOUTH 79°11'10" EAST FOR A DISTANCE OF 55.29 FEET,
SOUTH 35°30'55" EAST FOR A DISTANCE OF 84.31 FEET,
SOUTH 02°28'40" EAST FOR A DISTANCE OF 98.51 FEET,
SOUTH 36°06'16" EAST FOR A DISTANCE OF 375.04 FEET,

THENCE, DEPARTING SAID NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AND ALONG THE FOLLOWING
COURSES AND DISTANCES,

NORTH 54°00'05" EAST FOR A DISTANCE OF 250.71 FEET,
SOUTH 85°36'22" EAST FOR A DISTANCE OF 162.08 FEET,
SOUTH 66°00'51" EAST FOR A DISTANCE OF 159.66 FEET,
NORTH 73°39'32" EAST FOR A DISTANCE OF 295.47 FEET,
NORTH 60°17'53" EAST FOR A DISTANCE OF 151.38 FEET,
NORTH 79°07'45" EAST FOR A DISTANCE OF 166.42 FEET,



SOUTH 24°57'05" EAST FOR A DISTANCE OF 43.59 FEET TO THE SOUTHERLY LINE OF LAND DESCRIBED IN WARRANTY DEED 74-6136 TO STATE OF OREGON, AS RECORD IN CLACKAMAS COUNTY ON MARCH 14, 1974;

THENCE ALONG SOUTHERLY LINE OF SAID WARRANTY DEED 74-6136, NORTH 65°02'55" EAST FOR AS DISTANCE OF 300.54 FEET TO THE SOUTHWESTERLY CORNER OF LANDS FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE, OREGON AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO THE SOUTHWESTERLY CORNER OF TRACT B PLAT OF RINEARSON CREEK AS RECORD IN PLAT BOOK 136 AT PAGE 25 (PLAT NO. 4163), RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE SOUTHERLY LINE OF LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK, NORTH 63°44'30" EAST FOR A DISTANCE 199.94 TO A POINT 10 FOOT OFFSET FROM THE EASTERLY LINE OF SAID TRACT B;

THENCE, NORTH 25°52'21" WEST OFFSET 10 FEET AND PARALLEL TO THE EASTERLY LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK FOR A DISTANCE OF 305.37 FEET TO A POINT ON THE SOUTHERLY LINE OF LOT 11 OF SAID PLAT OF RINEARSON CREEK;

THENCE ALONG THE SOUTHERLY LINE OF LOT 11, 10 AND 9 OF SAID PLAT OF RINEARSON CREEK;
NORTH 86°24'20" WEST FOR A DISTANCE OF 58.82 FEET,
NORTH 66°44'30" WEST FOR A DISTANCE OF 44.13 FEET,
SOUTH 86°24'24" WEST FOR A DISTANCE OF 58.33 FEET TO THE SOUTHWESTERLY CORNER OF LOT 9 OF SAID PLAT OF RINEARSON CREEK;

THENCE, DEPARTING SAID PLAT OF RINEARSON CREEK SOUTH 63°55'33" WEST FOR A DISTANCE OF 10 FEET AND OFFSET FROM SAID PLAT OF RINEARSON CREEK;

THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO THE WESTERLY LINE OF LOT 9, 8, 7, 6, 5, 4 OF SAID PLAT OF RINEARSON CREEK NORTH 26°04'27" WEST FOR A DISTANCE OF 220.49 FEET TO A POINT 10 FOOT OFFSET FROM THE SOUTHERLY LINE OF THE LAND OF NANCY JO TOWLE AND CARL E. POSTON AS RECORDED BY STATUTORY BARGAIN AND SALE DEED DOCUMENT NUMBER 2010-047066 RECORDS OF CLACKAMAS COUNTY;



THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO SAID DEED SOUTH 64°20'07" WEST FOR A DISTANCE OF 130.10 FEET;

THENCE, CONTINUING AT 10 FOOT OFFSET AND PARALLEL TO SAID DEED NORTH 26°07'36" WEST FOR A DISTANCE OF 124.88 FEET TO POINT ON SAID DIVISION LINE AND THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION, SAID DESCRIPTION ENCLOSES 33.156 ACRES, MORE OR LESS.

SUBJECT TO EASEMENTS AND ENCUMBRANCES OF RECORD, IF ANY.



**Appendix G-3b -
Form of Conservation Easement Deed
Robinwood Riviere Property Owners' Association**

[Note: This conservation easement deed form is subject to revision due to the selection of a conservation easement holder.]

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

Property Address: N/A
Tax Parcel IDs: 01606925
Deed Reference(s): 76-22575
County Recording No. _____

Conservation Easement Deed
(Restoration Project)

THIS CONSERVATION EASEMENT DEED ("Conservation Easement") is made this _____ day of _____, 2018, by ROBINWOOD RIVIERE PROPERTY OWNERS' ASSOCIATION, an Oregon nonprofit corporation (the "Grantor"), in favor of _____¹ ("Grantee").

RECITALS:

- A. Grantor is the fee simple owner of certain property located in Clackamas County, Oregon, identified as "Lot 40 Robinwood Riviere (Common Area)," which property is more particularly described in that certain Warranty Deed made by Lynnwood Lumber Company, a Washington corporation (dba Lynnwood Enterprises), on July 2, 1976 and recorded in the Recorder's Office for Clackamas County, Oregon as Instrument Number 76-22575 (hereafter the "POA Land").
- B. Rinearson Natural Area, LLC, an Oregon limited liability company ("Rinearson"), has implemented a natural resource damage assessment restoration project known as the Rinearson Natural Area Restoration Project (the "Project") on certain property located in the City of Gladstone and Clackamas County, Oregon containing approximately 33.156

¹ The grantee will be a non-profit organization, an Indian Tribe or a governmental entity.

acres, including a portion of the POA Land, and being more particularly shown on Attachment "A-1" and described on Attachment "A-2" (the "Project Land"). Attachments "A-1" and "A-2" are incorporated herein by reference. The portion of the POA Land included in the Project is hereafter referred to as the "Property". Rinearson and Grantor have entered into an agreement by which Rinearson has the sole and exclusive right to conduct all activities on the Property necessary to complete the Project (the "Project Agreement"). Pursuant to the Project Agreement, Grantor has agreed to restrict the Property in order to protect the completed Project in perpetuity.

- C. Grantee is an organization qualified by ORS 271.715 (3) to hold conservation easements.
- D. This agreement is a conservation easement as provided for by ORS 271.715 to 271.795 and will run with the land.
- E. This Conservation Easement Deed is being executed and delivered pursuant to a Habitat Development Plan for the Rinearson Natural Area Restoration Project (the "Habitat Development Plan") and Restoration Project Memorandum of Agreement (collectively, the "Conservation Agreement"). The Habitat Development Plan and long-term stewardship plan for the Property, the "Rinearson Natural Area Long-Term Stewardship Plan" (the "Stewardship Plan") have been specifically developed for the Property. Grantor and Grantee each have and shall maintain in their possession a copy of the Conservation Agreement, the Stewardship Plan, and the Habitat Development Plan, all of which are fully incorporated herein by reference.
- F. The Property provides or is capable of providing significant ecological and habitat values that benefit endangered, threatened, and other ecologically important species (collectively, "Conservation Values"), as set forth in the Conservation Agreement, including "Essential Fish Habitat" for all life stages and associated habitat, for, among other things, Lower Columbia River steelhead (*Oncorhynchus mykiss*), Lower Columbia River Chinook salmon (*O. tshawytscha*), Columbia River chum salmon (*O. keta*), Lower Columbia River coho salmon (*O. kisutch*), Upper Willamette River Chinook salmon, and Upper Willamette River steelhead (each a "Target Species").
- G. The Portland Harbor Natural Resource Trustee Council ("Trustee Council") consists of the following members: the National Oceanic and Atmospheric Administration ("NOAA") on behalf of the United States Department of Commerce, the United States Fish and Wildlife Service ("USFWS") on behalf of the United States Department of the Interior, the Oregon Department of Fish and Wildlife ("ODFW") on behalf of the State of Oregon, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe. As referenced to in this Easement Deed, "Trustee Council" means all of the above listed Trustee Council members. The Trustee Council is conducting a damage assessment for the Portland Harbor Superfund site ("Site"), and anticipates bringing claims for injuries to natural resources under the Comprehensive Environmental

Response Compensation and Liability Act, 42 U.S.C. §§ 9601, *et seq.* ("CERCLA"), the Oil Pollution Act of 1990, 33 U.S.C. §§ 9601, *et seq.* and other applicable federal and state law.

- H. Additionally, NOAA and USFWS exercise jurisdiction with respect to the conservation, protection, restoration, enhancement, and management of threatened and endangered species and habitat pursuant to various federal laws including the Endangered Species Act, 16 U.S.C. §§ 1531, *et seq.* ("ESA"), the Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661-666c, the Magnuson-Stevens Act ("MSA") as amended (16 U.S.C. §§ 1801, *et seq.*) and the Fish and Wildlife Act of 1956 (16 U.S.C. §§742(f), *et seq.*).
- I. Grantor intends to convey to Grantee the right to preserve, protect, sustain, and enhance and/or restore the Conservation Values of the Property in perpetuity.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

NOW, THEREFORE, in consideration of the above recitals and the mutual covenants, terms, conditions, and restrictions contained herein, and pursuant to the laws of the United States and the State of Oregon, Grantor hereby voluntarily grants and conveys to Grantee the Conservation Easement in perpetuity over the Property consistent with the Conservation Agreement, on the terms set out below.

1. Purpose. The purpose of this Conservation Easement is to ensure that the Property will be retained forever in a condition contemplated by the Conservation Agreement and to prevent any use of the Property that will significantly impair or interfere with the Conservation Values of the Property. Grantor intends that this Conservation Easement will confine and restrict the use of the Property to such activities including, without limitation, those involving the preservation, conservation, and enhancement of native species and their habitats in a manner consistent with the purposes of this Conservation Easement and the Conservation Agreement.

2. Rights of Grantee. To accomplish the purposes of this Conservation Easement, Grantor hereby grants and conveys the following rights to Grantee for the duration of the Conservation Easement, along with a third-party right of enforcement to the Trustee Council or their designee(s) as third-party beneficiaries hereof, consistent with the Conservation Agreement:

A. To preserve, protect, sustain, enhance, and/or restore the Conservation Values of the Property.

B. To enter upon the Property at reasonable times, subject to giving Grantor forty-eight (48) hours' notice, except in cases where Grantee and/or the Trustee Council or either of their designees determine that immediate entry is required to prevent, terminate, or mitigate a violation of the Agreement, to monitor Grantor's compliance with and to otherwise enforce the terms of this Conservation Easement; provided that Grantee, the Trustee Council, or either of their designees, as applicable, shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Property.

C. To prevent any activity on or use of the Property that is inconsistent with the habitat conservation purposes of this Conservation Easement and to require the restoration of

such areas or features of the Property that may be damaged by any act, failure to act, or any use or activity that is inconsistent with the purposes of this Conservation Easement.

D. All mineral, air and water rights necessary to preserve, protect and sustain the biological resources and Conservation Values of the Property, unless specifically excluded from this Conservation Easement, including Grantor's right, title and interest in and to any waters consisting of: (a) any riparian water rights appurtenant to the Property; (b) any appropriative water rights held by Grantor to the extent those rights are appurtenant to the Property; (c) any waters, the rights to which are secured under contract between the Grantor and any irrigation or water district, to the extent such waters are customarily applied to the Property; and (d) any water from wells that are in existence or may be constructed in the future on the Property or on those lands described as excepted from the Property in the legal description and that were historically used by the Grantor to maintain the Property in a flooded condition (collectively, "Easement Waters"). The Easement Waters, mineral, air and water rights are limited to the amount of Grantor's waters reasonably required to maintain the Conservation Values of the Property.

E. All present and future development rights.

F. The parties acknowledge there is a portion of the POA Land that has been excluded from the Project (the "Excluded POA Land") and is therefore not included in the definition of the Property or the Project Land. The Excluded POA Land is identified in red on Attachment "C", which attachment is incorporated herein by this reference. The parties mutually agreed to exclude the Excluded POA Land from the Project in order to provide a buffer between the Project and the parcels (identified as Lots on Attachment "A-1") adjacent to the POA Land because some parcels' rear fences encroach into the POA Land. The parties agree that, notwithstanding the fact that the Excluded POA Land is excluded from the Project, the Grantee shall have the right, for itself and any successors, assigns, designees, stewards, managers or contractors, to (i) perform vegetation related activities, including but not limited to treatment and removal of invasive and non-native species and planting of native species, and (ii) conduct maintenance and monitoring activities, within the portion of the Excluded POA Land up to the rear fence line of the parcels adjacent to the HOA Land, all for the purpose of preserving, protecting, sustaining, enhancing, and/or restoring the Conservation Values of the Property.

3. Prohibited Uses. Any activity on or use of the Property inconsistent with the conservation purposes of this Conservation Easement and the Conservation Agreement is prohibited. Without limiting the generality of the foregoing, Grantor, its personal representatives, heirs, successors, assigns, employees, agents, lessees, licensees and invitees are expressly prohibited from doing or permitting any of the following on the Property unless specifically authorized by the Grantee, the Habitat Development Plan or the Stewardship Plan:

A. Construction, reconstruction, or placement of any permanent building or structure, except to the extent specifically permitted in Attachment "B";

B. Unseasonable watering; use of fertilizers, biocides, or other agricultural chemicals; incompatible fire protection activities; and any and all other uses which may adversely affect the conservation purposes of this Conservation Easement.

- C. Grazing or agricultural activity of any kind.
- D. Commercial or industrial uses.
- E. Depositing or accumulating soil, trash, ashes, refuse, waste, bio-solids, or any other material.
- F. Filling, dumping, excavating, draining, dredging, mining, drilling, removing, exploring for or extracting minerals, loam, gravel, soil, rock, sand or other material on or to a depth of 100 feet below the surface of the Property, or granting or authorizing surface entry for any of these purposes on the Property.
- G. Altering the surface or general topography of the Property, including building roads, paving, or otherwise covering the Property with concrete, asphalt, or any other impervious material.
- H. Removing, destroying, or cutting trees, shrubs, or other vegetation, except (1) to the extent specifically permitted in Attachment "B", (2) to the extent otherwise consistent with the Habitat Development Plan, Stewardship Plan and Conservation Agreement, and (3) as required for: (i) fire breaks; (ii) maintenance of existing foot trails or roads; (iii) prevention or treatment of disease; (iv) utility line clearance; (v) levee easement clearance; (vi) invasive species management; or (vii) prevention or remediation of vegetation that creates a substantial risk of bodily injury or property damage. Grantor shall provide prior notice and consult with Grantee and the Trustee Council, or their respective designees, prior to cutting or removing trees, shrubs or other vegetation for the purposes authorized in this section, except in the event of an emergency, in which case Grantor shall notify Grantee and the Trustee Council as soon as practicable.
- I. Use of motorized vehicles, including off-road vehicles, except on existing roadways.
- J. Transferring any water right potentially beneficial to the maintenance or restoration of the biological resources of the Property.
- K. Planting, introduction, or dispersal of invasive or exotic plant or animal species. This prohibition shall also apply to the Excluded POA Land.
- L. Manipulating, impounding or altering any natural watercourse, body of water or water circulation on the Property, other than those actions set forth under the Habitat Development Plan, and any activities or uses that are or are likely to be detrimental to water quality, including but not limited to degradation or pollution of any surface or sub- surface waters.
- M. Permitting a general public right of access to the Property, provided, however, volunteer organizations, education-related groups, news media and similar third-parties may be allowed to temporarily enter the Property for the limited purposes of inspection, education or public relations. All rights of access permitted under this section shall be taken in

accordance with and subject to the provisions and restrictions set forth in this Conservation Easement.

N. Trapping native species, except in consultation with and by approval of Grantee.

O. Hunting.

4. Grantor's Duties. As the owner of the Property, Grantor shall be responsible for preventing the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Property and are inconsistent with the Conservation Agreement. Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the Conservation Values of the Property and are inconsistent with the Conservation Agreement, Stewardship Plan and Habitat Development Plan.

5. Grantor's Reserved Rights. All rights accruing from Grantor's ownership of the Property, including the right to engage in or permit or invite others to engage in all uses of the Property that are not prohibited herein and are not inconsistent with the purposes of this Conservation Easement are reserved to Grantor and Grantor's personal representatives, heirs, successors, and assigns (collectively, the "Reserved Uses"). The Reserved Uses shall include, but not be limited to those uses and activities described in the attached Attachment "B". Attachment "B" is incorporated herein by reference.

6. Remedies for Violation and Corrective Action. If Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) determines there is a violation of the terms of this Conservation Easement or that a violation is threatened, written notice of such violation and a demand for corrective action sufficient to cure the violation shall be given to Grantor or Grantee, whichever is the violating party. Within ten (10) days of the receipt of written notice of such violation, the notice recipient shall provide a written response to each of the parties to this Conservation Easement, and to the Trustee Council or the Trustee Council's designee(s), pursuant to the "Notices" section below of this Conservation Easement. In any instance, measures to cure the violation shall be reviewed and approved by the Trustee Council or the Trustee Council's designee(s). If a violation is not cured within thirty (30) days after receipt of written notice and demand, or if the cure reasonably requires more than thirty (30) days to complete and there is failure to begin the cure within the thirty-day period or failure to continue diligently to complete the cure, the parties shall first engage in the following dispute resolution process to resolve any disputes arising related to the violation and cure. The Grantor, Grantee, or Trustee Council or the Trustee Council's designee(s), shall issue a written Notice of Deficiencies to all Parties, detailing the claimed deficiencies concerning the violation and cure. The Notice of Deficiencies shall identify a higher-level administrative officer within the issuing party's organization who shall represent the party in the dispute resolution process ("Dispute Resolution Representative"). The Notice of Deficiencies shall include the Dispute Resolution Representative's contact information. Within fourteen (14) days of the receipt of the Notice of Deficiencies, the remaining parties shall identify corresponding Dispute Resolution Representatives within their respective organizations and communicate to schedule a joint conference to be held at the earliest opportunity. The Dispute Resolution Representatives shall engage in a reasonable, good-faith effort to review the dispute and decide upon a mutually

agreeable cure, which shall be diligently implemented. If, after a reasonable period of time, the Dispute Resolution Representatives are unable to reach agreement, the Grantor, Grantee, or the Trustee Council or the Trustee Council's designee(s) may bring an action at law or in equity in a court of competent jurisdiction to enforce compliance with the terms of this Conservation Easement, to recover any damages to which Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) may be entitled for violation of the terms of this Conservation Easement or for any injury to the Conservation Values of the Property, or for other equitable relief, including, but not limited to, the restoration of the Property to the condition in which it existed prior to any violation or injury. Without limiting violator's liability therefore, any damages recovered may be applied to the cost of undertaking any corrective action on the Property.

6.1 Injunctive Relief. If Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s), in each its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the Conservation Values of the Property, Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) may pursue its remedies under this Section without prior notice or without waiting for the period provided for cure to expire to enjoin the violation, *ex parte* as necessary, by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies, and to require the restoration of the Property to the condition that existed prior to any such injury. The remedies described in this Section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity. The failure of Grantee, Grantor, the Trustee Council or the Trustee Council's designee(s) to discover a violation or to take immediate legal action shall not bar taking such action at a later time.

6.2 Standing. If at any time Grantee, Grantor, or any successor in interest or subsequent transferee uses or threatens to use the Property for purposes not in conformance with the stated conservation purposes contained herein, or releases or threatens to abandon this Conservation Easement in whole or in part, then, the Trustee Council or the Trustee Council's designee(s) shall have standing as an interested party in any proceeding affecting this Conservation Easement.

6.3 Costs of Enforcement. All reasonable costs incurred in enforcing the terms of this Conservation Easement including, but not limited to, costs of suit and attorneys' fees, and any costs of restoration necessitated by violation or negligence under the terms of this Conservation Easement shall be borne by the violator.

6.4 Enforcement Discretion. Enforcement of the terms of this Conservation Easement shall be at the discretion of Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s), and any forbearance to exercise rights of enforcement under this Conservation Easement in the event of any breach of any term of this Conservation Easement shall not be deemed or construed to be a waiver of such term or of any subsequent breach of the same or any other term of this Conservation Easement or of any rights under this Conservation Easement. No delay or omission in the exercise of any right or remedy upon any breach shall impair such right or remedy or be construed as a waiver.

6.5 Catastrophic Acts Beyond Grantee's or Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee, Grantor, or the Trustee Council or the Trustee Council's designee(s) to bring any action for any injury to or change in the Property resulting from causes beyond Grantee or Grantor's control, including, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken by Grantee or Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes. The Grantor, Grantee, and Trustee Council or the Trustee Council's designee(s) shall be notified of the catastrophic event within forty-eight (48) hours of its discovery. The Grantor, Grantee, and the Trustee Council or the Trustee Council's designee(s) shall meet as soon as reasonably possible to determine a response to such catastrophic event. In the interim, the Grantor shall continue to the fullest extent possible to manage and maintain the Property consistent with the conservation purposes of the Conservation Easement and Conservation Agreement.

6.6 Third-Party Beneficiary Right of Enforcement. All rights and remedies conveyed under this Conservation Easement shall extend to and are enforceable by the Trustee Council or its designee(s) as a third-party beneficiary. These rights of enforcement are in addition to, and do not limit, the rights of enforcement under the Conservation Agreement.

7. Costs and Liabilities. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property, including transfer costs, costs of title and documentation review, and maintenance of adequate liability insurance coverage. Grantor remains solely responsible for obtaining any applicable permits and approvals required for any activity or use permitted on the Property by this Conservation Easement, and any such activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency laws, statutes, ordinances, rules, regulations, orders and requirements. Nothing in this Section is intended to relieve Grantee of its obligations under the Habitat Development Plan, Conservation Agreement, or the Stewardship Plan.

7.1 Taxes: No Liens. Grantor shall pay, before delinquency, all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively, "taxes"), including any taxes imposed upon, or incurred as a result of, this Conservation Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantor shall keep Grantee's interest in the Property free from any liens, including those arising out of any obligations incurred by Grantor for any labor or materials furnished or alleged to have been furnished at or for use on the Property.

7.2 Hold Harmless. Grantor shall hold harmless, indemnify, and defend Grantee, Trustee Council or the Trustee Council's designee(s), and each of their respective members, directors, officers, employees, agents, and contractors and the heirs, personal representatives, successors, and assigns (collectively, the "Indemnified Parties"), from, for, and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, orders, liens, or judgments, including, without limitation, reasonable attorneys' fees, arising from or in any way connected with (a) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, unless due to the negligence of any of the Indemnified

Parties and except to the extent covered by Grantee's indemnification obligations in the following paragraph, b) the obligations, covenants, representation and warranties of this Conservation Easement relating to the Costs and Liabilities of this Section 7, and c) breach or noncompliance by Grantor with respect to any obligations of Grantor under this Conservation Easement.

7.3 Grantee shall hold harmless, indemnify, and defend Grantor and the Trustee Council or the Trustee Council's designee(s), and each of their respective members, directors, officers, employees, agents, and contractors and the heirs, personal representatives, successors, and assigns from and against all liabilities, penalties, costs, losses, damages, expenses, causes of action, claims, demands, orders, liens, or judgments, including, without limitation, reasonable attorneys' fees, arising from or in any way connected with injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property arising from or in connection with any act or omission by Grantee or any employee, agent or contractor of Grantee, unless due to the negligence of any of the Indemnified Parties.

7.4 Grantor and Grantee shall maintain in force general liability insurance with respect to the Property with minimum liability amounts of not less than \$1,000,000.00 per occurrence of bodily injury or property damage (which is intended only as a minimum and not a limit to liability), each written on an occurrence basis, each including contractual liability coverage with respect to each party's indemnification obligations set forth above, and each naming the other and its Indemnified Parties as additional insureds. Such insurance shall be primary and noncontributory with any other coverage held by the additional insured. Upon request, either party will provide the other with a certificate evidencing such coverage.

8. Best and Most Necessary Use. The habitat conservation purposes of the Conservation Easement are presumed to be the best and most necessary public use.

9. Conservation Easement Assignment or Transfer. This Conservation Easement may be assigned or transferred by Grantee or any successor in interest upon written approval of the Trustee Council or its designee(s) and Grantor, which approval shall not be unreasonably withheld, but Grantee shall give Grantor and the Trustee Council or the Trustee Council's designee(s) at least thirty (30) days prior written notice of the transfer. Grantee or any successor in interest may assign or transfer its rights and obligations under this Conservation Easement only to an entity or organization as approved by the Trustee Council or the Trustee Council's designee(s) and Grantor. As a condition of such assignment or transfer, Grantee shall require that the conservation purposes of this Conservation Easement and the Conservation Agreement are carried out and notice of such restrictions, including the Conservation Agreement, shall be recorded in the County where the Property is located. The failure of Grantee to perform any act required by this paragraph shall not impair the validity of this Conservation Easement or its enforcement in any way.

10. Subsequent Property Transfer. This Conservation Easement may be assigned or transferred by Grantor or any successor in interest upon written approval of the Trustee Council or its designee(s), which approval shall not be unreasonably withheld. Grantor agrees to give Grantee and the Trustee Council or the Trustee Council's designee(s) written notice of its intent

to transfer any interest in this Conservation Easement at least thirty (30) days prior to the date of such transfer. Grantor or any successor in interest may assign or transfer its rights and obligations under this Conservation Easement only to an entity or organization as approved by the Trustee Council or its designee(s). Grantor further agrees to incorporate the terms of this Conservation Easement in any deed or other legal instrument by which Grantor divests itself of any interest in all or a portion of the Property, including, without limitation, a leasehold interest. Grantee or the Trustee Council or the Trustee Council's designee(s) shall have the right to prevent subsequent transfers in which prospective subsequent claimants or transferees are not given notice of the terms, covenants, conditions and restrictions of this Conservation Easement or whenever a subsequent Property transfer will result in a merger of the Conservation Easement and the Property in a single Property owner (thereby extinguishing the Conservation Easement) if no method or mechanism deemed adequate to preserve, protect, and sustain the Property in perpetuity has been established. The failure of Grantor to perform any act required by this section shall not impair the validity of this Conservation Easement or limit its enforcement in anyway.

11. Estoppel Certificates. Grantee shall, within thirty (30) business days after receiving Grantor's request therefore, execute and deliver to Grantor a document certifying, to the best knowledge of the person executing the document, that Grantor is in compliance with any obligation of Grantor contained in this Conservation Easement, or otherwise evidencing the status of such obligation to the extent of Grantee's knowledge thereof, as may be reasonably requested by Grantor.

12. Notices. Any notice, demand, request, consent, approval, or other communication that Grantor, Grantee, or the Trustee Council or the Trustee Council's designee(s) desires or is required to give to the others shall be in writing and either served personally or sent by first-class mail, postage prepaid or by recognized overnight courier that guarantees next-day delivery addressed as follows:

To Grantor: William Dugan (or then then President of the Robinwood Riviere Property Owners' Association)
4728 SE Lacour Ct.
Milwaukie, OR 97267

With a copy to (which alone shall not constitute notice):

Perkins Coie LLP
1120 N.W. Couch Street, Tenth Floor
Portland, OR 97209-4128
Attn: Christopher C. Criglow, Esq.

To Grantee: _____ 2

² The grantee's contact information will be inserted once a conservation easement holder is identified.

To Trustee Council: NOAA
Restoration Center
1201 NE Lloyd Blvd., Suite 1100
Portland, OR 97232

United States Fish and Wildlife Service
Pacific Region
Attn: Field Supervisor
911 NE 11th Ave.# 1
Portland, OR 97232

Oregon Department of Fish and Wildlife
3406 Cherry Avenue N.E. Salem, OR 97303
Confederated Tribes of the Grand Ronde

Confederated Tribes of the Grand Ronde Community of Oregon
Attn: Michael Karnosh, Ceded Lands Program Manager
9615 Grand Ronde Road
Grand Ronde, Oregon 97347

Confederated Tribes of Siletz Indians
ATTN: Natural Resources Manager
P.O. Box 549
Siletz, OR 97380

Confederated Tribes of the Umatilla Indian Reservation
Nixyaawii Governance Center
46411 Timine Way
Pendleton, OR 97801

Confederated Tribes of the Warm Springs Reservation of Oregon
1107 Wasco Street
Warm Springs, OR 97761

Nez -Perce Tribe
P.O. Box 305
Lapwai, ID 83540

or to such other address as a party shall designate by written notice to the others. Notice shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by first class mail, five (5) days after deposit into the United States mail.

13. Recordation. Grantor shall submit an original, signed and notarized Conservation Easement to Grantee and Grantee shall promptly record this instrument in the official records of the County in which the Property is located, and shall thereafter promptly provide a conformed copy of the recorded Conservation Easement to the Grantor and to the Trustee Council or the

Trustee Council's designee(s). Grantee may re-record at any time as may be required to preserve its rights in this Conservation Easement.

14. Amendment. This Conservation Easement may be amended by Grantor and Grantee only by mutual written agreement and written approval by the Trustee Council or the Trustee Council's designee(s). Any such amendment shall be consistent with the purposes of this Conservation Easement and shall not affect its perpetual duration, and Grantee shall promptly record this amended instrument in the official records of the County in which the Property is located, and shall thereafter promptly provide a conformed copy of the recorded amended Conservation Easement to the Grantor and to the Trustee Council or its designee(s).

15. No Warranty; AS IS. Grantee agrees, for itself, its successors and assigns, that it is accepting this grant on an AS IS basis, without reliance upon any representation or warranty of Grantor, and relying solely upon Grantee's own expertise, experience and investigation of the Property and Grantee expressly disclaims, waives and releases any warranty or representation, express or implied, by Grantor or any representative of Grantor, including as to title, condition, or suitability for any particular purpose.

16. Additional Interests. Except for another conservation easement established in accordance with the Conservation Agreement and which is not adverse to the Conservation Easement established herein, Grantor shall not grant any additional interest in the Property that is not subordinate to this Conservation Easement, nor shall Grantor grant, transfer, abandon, or relinquish any water or water right associated with the Property, including without limitation any Easement Waters, without the prior written authorization of Grantee and the Trustee Council or the Trustee Council's designee(s). Such consent may be withheld if the proposed interest or transfer is inconsistent with the purposes of this Conservation Easement and the Conservation Agreement or will impair or interfere with the Conservation Values of the Property. This Section shall not prohibit the transfer of a fee title or leasehold interest in the Property that is otherwise subject to and complies with the terms of this Conservation Easement.

17. Third-Party Beneficiaries and Access. Grantor and Grantee acknowledge that the Trustee Council and its designee(s) are third-party beneficiaries of this Conservation Easement with rights to enforce all of the provisions of this Conservation Easement and with rights of access to the Property for monitoring or conservation activities contemplated by this Conservation Easement or the Conservation Agreement. Except in cases where the Trustee Council or its designee(s) determine that immediate entry is required to prevent, terminate, or mitigate a violation of the Agreement, such access is subject to providing the Grantor with forty-eight (48) hours' notice.

18. Condemnation. If all or any part of the Property is the subject of an eminent domain proceeding, Grantor will take reasonable actions to defend the Property and the Conservation Values associated with it. In the event that said efforts are unsuccessful, Grantor shall take all appropriate actions to recover the full value of the taking and all incidental or direct damages resulting from the taking (the "Proceeds"). Grantee shall receive the portion of the Proceeds equal to the value of the conservation easement. Disagreements regarding the appropriate response under this Section shall be resolved in accordance with the Dispute Resolution provision in this Conservation Easement.

19. No Merger. This Conservation Easement shall be of perpetual duration, it being the express intent of the Parties that this Easement not be extinguished by, or merged into, any other interest or estate in the Property now or hereafter held by Grantee or any other Party.

20. General Provisions.

20.1 Controlling Law. The interpretation and performance of this Conservation Easement shall be governed by the laws of the State of Oregon and applicable Federal law including the ESA.

20.2 Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Conservation Easement shall be liberally construed in favor of the deed to affect the purposes of this Conservation Easement. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

20.3 Severability. If any provision of this Conservation Easement or the application thereof is found to be invalid the remaining provisions of this Conservation Easement or the application of such provisions other than that found to be invalid shall not be affected thereby.

20.4 Entire Agreement. This Conservation Easement and the Conservation Agreement incorporated by reference herein, including all of the exhibits thereto, together set forth the entire agreement of the parties and supersede all prior discussions, negotiations, understandings, or agreements relating to the Conservation Easement, all of which are merged herein. No alteration or variation of this instrument shall be valid or binding unless contained in an amendment in accordance with the provisions herein.

20.5 No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

20.6 Successors. The covenants, terms, conditions, and restrictions of this Conservation Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall constitute a servitude running in perpetuity with the Property. This Conservation Easement shall remain valid consistent with the terms of ORS 271.745.

20.7 Termination of Rights and Obligations. A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or Property, except that liability for acts, omissions or breaches occurring prior to transfer shall survive transfer.

20.8 Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon its construction or interpretation.

20.9 Counterparts. The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

IN WITNESS WHEREOF, Grantor has executed and delivered this Conservation Easement Deed as of the day and year first above written.

GRANTOR:

By: _____

Title: _____

Date: _____

GRANTEE:

By: _____

Title: _____

Date: _____



BOUNDARY DESCRIPTION

A TRACT OF LAND LYING WITHIN A PORTIONS OF LAND FOUND IN DEED 92-30263 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON MAY 19 1990, ALSO WITHIN A PORTION OF LAND FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO WITHIN A PORTION OF LAND FOUND IN QUIT CLAIM DEED 2005-050728 TO CORNELL V SAFTENCU, AS RECORDED IN CLACKAMAS COUNTY ON JUNE 03 2005, ALSO WITHIN A PORTION OF LAND FOUND IN WARRANTY DEED 76-22575 TO THE ROBINWOOD RIVIERE PROPERTY OWNERS' ASSOCIATION, AS RECORDED IN CLACKAMAS COUNTY ON JULY 6 1976, ALSO WITHIN THE LAND FOUND IN BARGAIN & SALE DEED ``99-088195 TO THE CITY OF GLADSTONE OREGON, AS RECORDED IN CLACKAMAS COUNTY SEPTEMBER 7 1999, ALL SAID LAND SITUATED WITHIN THE P.M. RINEARSON DONATION LAND CLAIM (D.L.C.) AND INDEXED WITHIN THE SOUTH HALF OF SECTION 19 TOWNSHIP 2 SOUTH, RANGE 2 EAST OF CLACKAMAS COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS TO WIT:

COMMENCING AT STONE (STONE NO. 1) SET IN THE DIVISION LINE BETWEEN THE NORTH 1/2 AND SOUTH 1/2 OF THE P.M. RINEARSON D.L.C, AS FOUND BY MELDRUM IN 1908, SEE BLUE FIELD BOOK FILE 1905-1908 BOOK 21 PAGES 111-118 AND AS SHOWN ON SURVEY CS-7476 BY BERTELL MASON JR, FROM WHICH BEARS ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST AT A DISTANCE OF 1341.93 FEET, (CS-7476 SOUTH 64°00'00" WEST - 1341.42 FEET) A STONE (STONE NO. 2), ALSO FOUND BY MELDRUM, SAID SECOND STONE IS REFERENCED BY; A 1-1/4" GAS PIPE BEARING SOUTH 42°24'46" EAST AT A DISTANCE OF 8.91 FEET, (CS-7476 SOUTH 40°30' WEST - 9.08 FEET), A 1/2" REBAR BEARING SOUTH 67°30'24" WEST AT A DISTANCE OF 8.91 FEET, A 5/8" IRON ROD BEARING NORTH 54°04'56" WEST AT A DISTANCE OF 2.64 FEET,

THENCE, FROM SAID STONE NO. 1 SOUTH 64°04'44" WEST ALONG SAID DIVISION LINE FOR A DISTANCE OF 266.39 FEET TO THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION;

THENCE, CONTINUING ALONG SAID DIVISION LINE SOUTH 64°04'44" WEST FOR A DISTANCE OF 150.90 FEET;

THENCE, DEPARTING SAID DIVISION LINE AND RUNNING 25 FEET OFFSET AND PARALLEL TO THE SOUTHERLY LINE OF LOT 12 THROUGH LOT 20 OF



THE PLAT OF ROBINWOOD RIVIERE AS RECORDED IN PLAT BOOK 63 AT PAGE 30 (PLAT NO. 1943), RECORDED AT CLACKAMAS COUNTY, THE FOLLOWING COURSES AND DISTANCES;

NORTH 69°45'26" WEST FOR A DISTANCE OF 162.92 FEET;
NORTH 88°29'26" WEST FOR A DISTANCE OF 553.56 FEET;

THENCE, DEPARTING SAID OFFSET LINE NORTH 01°30'34" EAST FOR A DISTANCE OF 25.00 FEET TO THE SOUTHERLY CORNER COMMON TO LOT 20 AND LOT 21 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, SOUTH 58°42'42" WEST FOR A DISTANCE OF 121.53 FEET TO A POINT THAT BEARS SOUTH 05°38'35" WEST A DISTANCE 25 FEET FROM THE SOUTHEASTERLY CORNER OF LOT 22 OF SAID PLAT OF ROBINWOOD RIVIERE;

THENCE, NORTH 80°09'46" WEST FOR A DISTANCE OF 146.57 FEET TO A POINT ON THE EASTERLY LINE OF THAT CERTAIN LANDS OF CORNELL V. SAFTENCU, BEING THE SOUTHEASTERLY CORNER OF PARCEL 1 AND THE NORTHEASTERLY CORNER OF PARCEL 2, AS RECORDED BY DOCUMENT NUMBER 2005-050728 RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE LINE COMMON OF PARCEL 1 AND PARCEL 2 OF SAID CORNELL V. SAFTENCU LANDS NORTH 46°20'01" WEST FOR A DISTANCE OF 89.88 FEET TO A POINT 10 FOOT OFFSET SOUTHEASTERLY FROM THE EASTERLY LINE OF LOT A OF THE PLAT OF RIVER COVE AS RECORDED IN PLAT BOOK 29 AT PAGE 10 (PLAT NO. 801), RECORDS OF CLACKAMAS COUNTY;

THENCE, 10 FEET PARALLEL AND OFFSET FROM THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28' 20" WEST FOR A DISTANCE OF 73.40 FEET TO A POINT ON THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LANDS, (DESCRIBED IN SAID DEED AS THE EASTERLY BANK OF THE WILLAMETTE RIVER AT MEAN HIGH WATER STAGE);

THENCE, ALONG THE SOUTHERLY DEED LINE OF SAID CORNELL V. SAFTENCU LAND NORTH 25°48'00" WEST FOR A DISTANCE OF 10.69 FEET TO POINT ON THE SOUTHERLY PROJECTION OF THE EASTERLY LINE OF LOT A OF SAID PLAT OF RIVER COVE;

THENCE, ALONG THE SOUTHERLY PROJECTION OF THE EASTERLY LINE LOT A OF SAID PLAT OF RIVER COVE, SOUTH 43°28'20" WEST FOR A



DISTANCE OF 53.35 FEET TO THE APPROXIMATE CENTERLINE AND
EASTERLY TERMINUS OF MELDRUM'S SLOUGH;

THENCE, ALONG THE APPROXIMATE CENTERLINE OF MELDRUM'S SLOUGH
THE FOLLOWING COURSES AND DISTANCES;

NORTH 53°21'33" WEST FOR A DISTANCE OF 132.73 FEET,
NORTH 73°31'11" WEST FOR A DISTANCE OF 107.14 FEET,
NORTH 84°32'58" WEST FOR A DISTANCE OF 56.87 FEET ,
NORTH 73°44'04" WEST FOR A DISTANCE OF 77.47 FEET,
SOUTH 89°26'35" WEST FOR A DISTANCE OF 89.18 FEET TO POINT ON
THE EASTERLY BANK OF THE WILLAMETTE RIVER AT ORDINARY LOW
WATER;

THENCE, ALONG THE EASTERLY BANK OF SAID WILLAMETTE RIVER AT
ORDINARY LOW WATER, THE FOLLOWING COURSES AND DISTANCES,
SOUTH 15°14'52" WEST FOR A DISTANCE OF 61.17 FEET,
SOUTH 09°25'35" EAST FOR A DISTANCE OF 81.45 FEET,
SOUTH 41°38'19" EAST FOR A DISTANCE OF 241.44 FEET TO THE
APPROXIMATE BEGINNING OF THAT PORTION OF THE NORTHEASTERLY
BANK KNOWN AS MELDRUM'S BAR PUBLIC BOATWAY ACCESS CHANNEL,
AT ORDINARY LOW WATER;

THENCE, ALONG THE NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AT ORDINARY LOW WATER, THE
FOLLOW COURSES AND DISTANCES,

SOUTH 45°40'44" EAST FOR A DISTANCE OF 89.19 FEET,
SOUTH 24°57'57" EAST FOR A DISTANCE OF 118.54 FEET,
SOUTH 36°50'29" EAST FOR A DISTANCE OF 142.92 FEET,
SOUTH 79°11'10" EAST FOR A DISTANCE OF 55.29 FEET,
SOUTH 35°30'55" EAST FOR A DISTANCE OF 84.31 FEET,
SOUTH 02°28'40" EAST FOR A DISTANCE OF 98.51 FEET,
SOUTH 36°06'16" EAST FOR A DISTANCE OF 375.04 FEET,

THENCE, DEPARTING SAID NORTHEASTERLY BANK OF MELDRUM'S BANK
PUBLIC BOATWAY ACCESS CHANNEL AND ALONG THE FOLLOWING
COURSES AND DISTANCES,

NORTH 54°00'05" EAST FOR A DISTANCE OF 250.71 FEET,
SOUTH 85°36'22" EAST FOR A DISTANCE OF 162.08 FEET,
SOUTH 66°00'51" EAST FOR A DISTANCE OF 159.66 FEET,
NORTH 73°39'32" EAST FOR A DISTANCE OF 295.47 FEET,
NORTH 60°17'53" EAST FOR A DISTANCE OF 151.38 FEET,
NORTH 79°07'45" EAST FOR A DISTANCE OF 166.42 FEET,



SOUTH 24°57'05" EAST FOR A DISTANCE OF 43.59 FEET TO THE SOUTHERLY LINE OF LAND DESCRIBED IN WARRANTY DEED 74-6136 TO STATE OF OREGON, AS RECORD IN CLACKAMAS COUNTY ON MARCH 14, 1974;

THENCE ALONG SOUTHERLY LINE OF SAID WARRANTY DEED 74-6136, NORTH 65°02'55" EAST FOR AS DISTANCE OF 300.54 FEET TO THE SOUTHWESTERLY CORNER OF LANDS FOUND IN DEDICATION AGREEMENT FOR REAL PROPERTY 2007-092290 TO THE CITY OF GLADSTONE, OREGON AS RECORDED IN CLACKAMAS COUNTY ON OCTOBER 26 2007, ALSO THE SOUTHWESTERLY CORNER OF TRACT B PLAT OF RINEARSON CREEK AS RECORD IN PLAT BOOK 136 AT PAGE 25 (PLAT NO. 4163), RECORDS OF CLACKAMAS COUNTY;

THENCE, ALONG THE SOUTHERLY LINE OF LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK, NORTH 63°44'30' EAST FOR A DISTANCE 199.94 TO A POINT 10 FOOT OFFSET FROM THE EASTERLY LINE OF SAID TRACT B;

THENCE, NORTH 25°52'21" WEST OFFSET 10 FEET AND PARALLEL TO THE EASTERLY LINE OF TRACT B OF SAID PLAT OF RINEARSON CREEK FOR A DISTANCE OF 305.37 FEET TO A POINT ON THE SOUTHERLY LINE OF LOT 11 OF SAID PLAT OF RINEARSON CREEK;

THENCE ALONG THE SOUTHERLY LINE OF LOT 11, 10 AND 9 OF SAID PLAT OF RINEARSON CREEK;
NORTH 86°24'20" WEST FOR A DISTANCE OF 58.82 FEET,
NORTH 66°44'30" WEST FOR A DISTANCE OF 44.13 FEET,
SOUTH 86°24'24" WEST FOR A DISTANCE OF 58.33 FEET TO THE SOUTHWESTERLY CORNER OF LOT 9 OF SAID PLAT OF RINEARSON CREEK;

THENCE, DEPARTING SAID PLAT OF RINEARSON CREEK SOUTH 63°55'33" WEST FOR A DISTANCE OF 10 FEET AND OFFSET FROM SAID PLAT OF RINEARSON CREEK;

THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO THE WESTERLY LINE OF LOT 9, 8, 7, 6, 5, 4 OF SAID PLAT OF RINEARSON CREEK NORTH 26°04'27" WEST FOR A DISTANCE OF 220.49 FEET TO A POINT 10 FOOT OFFSET FROM THE SOUTHERLY LINE OF THE LAND OF NANCY JO TOWLE AND CARL E. POSTON AS RECORDED BY STATUTORY BARGAIN AND SALE DEED DOCUMENT NUMBER 2010-047066 RECORDS OF CLACKAMAS COUNTY;



THENCE, RUNNING 10 FOOT OFFSET AND PARALLEL TO SAID DEED SOUTH 64°20'07" WEST FOR A DISTANCE OF 130.10 FEET;

THENCE, CONTINUING AT 10 FOOT OFFSET AND PARALLEL TO SAID DEED NORTH 26°07'36" WEST FOR A DISTANCE OF 124.88 FEET TO POINT ON SAID DIVISION LINE AND THE POINT OF BEGINNING OF THIS BOUNDARY DESCRIPTION, SAID DESCRIPTION ENCLOSES 33.156 ACRES, MORE OR LESS.

SUBJECT TO EASEMENTS AND ENCUMBRANCES OF RECORD, IF ANY.



Attachment “B”

Non-Exclusive List of Reserved Uses

The Grantor specifically reserves the following rights and uses with respect to the Property

1. The right of access to the Property similar to the rights of the Grantor and its members pursuant to the Declaration of Conditions and Restrictions recorded on November 7, 1973 in the Recorder’s Office for Clackamas County, Oregon as Instrument Number 73-34971, at the Property’s present access points, provided that all such access shall be taken in accordance with the terms of this Conservation Easement and shall not impair Conservation Values.
2. The right to use, maintain, repair and replace existing improvements at the Property (including but not limited to existing stairs and drain pipes) within the existing improvements’ current footprint. Existing improvements cannot be expanded to occupy a larger footprint.
3. Access to and use of the pathway (surfaced with suitable permeable material, e.g., gravel or wood chips) between the bases of the existing stairs, which pathway was installed in conjunction with the restoration work performed at the Property. Access shall be restricted to the pathway and access points, and all pets must remain on a leash.
4. The right to trim or remove plantings within an area of the Property identified as the Hill Slope Area (as shown in yellow on Attachment “C”) if such plantings materially obstruct the view of the pond, channels and wetland areas within the Property. This right may only be exercised after notice to and consultation with Grantee and the Trustee Council or its designee(s).
5. The right to treat or remove any trees with a diameter of 8” or greater which Declarant reasonably determines presents a real and actual threat of bodily injury or property damage. Except in the case of an emergency, in which case Grantor shall notify Grantee and Trustee Council or its designees(s) as soon as possible, this right may only be exercised after notice to, consultation with, and approval by Grantee and the Trustee Council or its designee(s).

VICINITY MAP
NO SCALE



EXHIBIT "LIMITS OF IMPROVEMENTS"

FOR
RINEARSON NATURAL RESOURCE AREA
SITuated IN SOUTH HALF OF SECTION 19
TOWNSHIP 2 SOUTH, RANGE 2 EAST, WILLAMETTE MERIDIAN,
CITY OF GLADSTONE, CLACKAMAS COUNTY, STATE OF OREGON.
NO CORNERS SET WITH THIS MAPPING

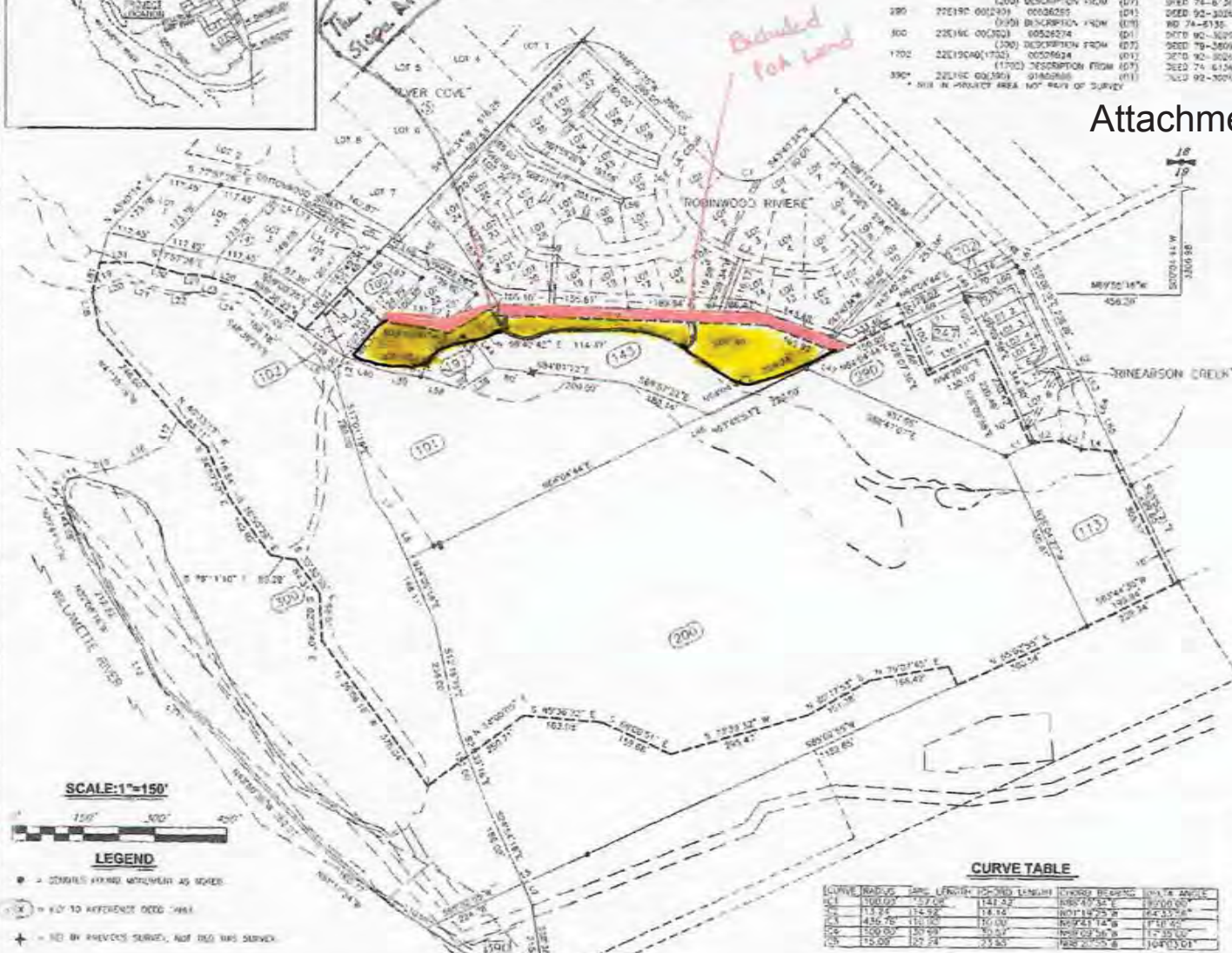
REFERENCE DEEDS

SURVEY	TAX LOT	PARCELS	ALL IN CLACKAMAS COUNTY DEED RECORDS	REF. #	DEED	GRANTEE (OWNER)
22119040(101)		00020154	(01)	DEED 93-30083	CITY OF GLADSTONE, OR	
102 & 100		00020154	(02)	DEED 72-37411	STATE OF OREGON, DOT	
113		00020154	(03)	DEED 009-35078	CORNELL, V. SAMPSON	
113		00020154	(04)	DEED 2007-09290	CITY OF GLADSTONE, OR	
113		00020154	(05)	DEED 76-22075 EXP	DEED FILED 94-048-PS	
113		00020154	(06)	DEED 020-08819	CITY OF GLADSTONE, OR	
200		00020256	(01)	DEED 90-30243	CITY OF GLADSTONE, OR	
280		00020256	(07)	DEED 74-8-50	ST OF OR DOT-1949 DV	
280		00020256	(08)	DEED 92-30263	CITY OF GLADSTONE, OR	
300		00020274	(01)	DEED 74-8130	STATE OF OREGON DOT	
300		00020274	(02)	DEED 90-30263	CITY OF GLADSTONE, OR	
1702		00020624	(01)	DEED 79-3809	ST OF OR DOT-1949 DV	
390*		00020624	(02)	DEED 90-30263	CITY OF GLADSTONE, OR	
390*		00020624	(03)	DEED 74-8134	ST OF OR DOT-1949 DV	
390*		00020624	(04)	DEED 92-30043	CITY OF GLADSTONE, OR	

LINE TABLE

LINE NO.	DESCRIPTION	BEARING	DISTANCE
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100

Attachment C



SCALE: 1"=150'



LEGEND

- = CORNERS FOUND WITHIN AS NOTED
- = REF TO REFERENCE DEED #
- + = SET BY PREVIOUS SURVEY, NOT SET BY THIS SURVEY

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	TANGENT LENGTH	CHORD BEARING	INT. ANGLE
1	100.00	11.33	11.33	N89°43'34"E	100.0000
2	11.33	11.33	11.33	N89°43'34"E	100.0000
3	436.76	11.33	11.33	N89°43'34"E	100.0000
4	100.00	11.33	11.33	N89°43'34"E	100.0000
5	11.33	11.33	11.33	N89°43'34"E	100.0000

REGISTERED PROFESSIONAL LAND SURVEYOR

DAVE GRESHAM
EXPIRES 04/30/2018

STATEWIDE LAND SURVEYING INC.
WWW.STATEWIDE-SURVEYING.COM
2500 W. 10TH ST. SUITE 200
GRESHAM, OR 97030
503.665.7960
503.665.7777

DRAWN: G.D.S. DATE: 8/7/2015
CHECKED: DAVE DATE: 8/29/15
SCALE: 1" = 150' SHEET: 1 OF 1 PROJECT NO: 2015-42

Appendix G-4: Long-Term Monitoring and Management Plan

Appendix G-4: Long-Term Monitoring and Management Plan

Introduction and Goals

The Rinearson Natural Area Restoration Project (Project) is an aquatic, wetland, floodplain, and riparian restoration and enhancement project being developed in coordination with the Trustee Council as part of a regional restoration plan for the lower Willamette River to provide ecological services to compensate for environmental damages incurred as a result of industrial contamination of the Portland Harbor. The Project is in the outer harbor, part of the Broader Focus Area which extends from Willamette Falls downstream to river mile (RM) 12.3.

The Project is being developed to primarily target the federally threatened upper Willamette River (UWR) spring-run Chinook salmon (*Oncorhynchus tshawytscha*) evolutionarily significant unit (ESU), the federally threatened lower Columbia River (LCR) Chinook salmon ESU, the federally threatened LCR steelhead (*O. mykiss*) distinct population segment (DPS), the federally threatened UWR steelhead DPS, and the LCR coho salmon (*O. kisutch*) ESU. Once complete, this Project will also benefit a diverse array of aquatic, avian, and terrestrial species that reside either permanently or temporarily within the Willamette and Columbia Rivers. In addition to the target salmonids, the Portland Harbor Restoration Plan identifies the following species as targeted for restoration within Portland Harbor: bald eagle (*Haliaeetus leucocephalus*), mink (*Mustela vison*), osprey (*Pandion haliaetus*), spotted sandpiper (*Actitis macularius*), and Pacific lamprey (*Lampetra tridentata*).

This Rinearson Natural Area Habitat Development Plan (Habitat Development Plan) describes the habitat design for the Project. The restoration of riparian and aquatic habitats will be accomplished via earthwork and native vegetation restoration and management. All in-water construction work will occur within the designated in-water work window. Following construction, the site will receive 10 years of effectiveness monitoring and potential adaptive management activities, during which time site conditions will be documented and reported to the Trustee Council. Site maintenance will be performed in coordination with the Trustee Council based on monitoring results and site development. After the effectiveness monitoring and adaptive management period is complete, the Project will be protected and managed by an approved long-term land steward using a perpetual, project-specific fund. Site stewardship responsibilities, site maintenance activities, and adaptive management activities will be drafted after the long-term steward (LTS) is selected in a formal site-specific long-term Stewardship Plan (LTMP). The LTMP will be developed in coordination with the LTS and the Trustee Council once the LTS has been identified. As of the date of the Habitat Development Plan, an LTS has not been identified by the Trustee Council. The LTMP will be developed prior to Year 10 of the Project's performance period.

The goal of long-term stewardship is to ensure that the Project continues to meet the goals and objectives outlined in the Habitat Development Plan in perpetuity. The long-term stewardship framework presented here outlines information to be included in the LTMP and describes the Project Sponsor's (Rinearson Natural Area LLC) and the Trustee Council's expectations and commitments for long-term stewardship of the Project. Long-term stewardship will involve tasks such as:

- Regularly scheduled site visits to observe and document site conditions
- Managing invasive vegetation
- Maintaining fences, trails and gates
- Ensuring any public uses are appropriate and any illegal or incompatible uses are addressed
- Long-term monitoring of parameters such as vegetation survival
- Clean-up and debris removal

- Maintaining positive relationships with adjacent landowners and interested community members
- Any other tasks required to maintain project effectiveness and full functionality of a given NRDA restoration project.

The LTMP will be based on the Trustee Council's Portland Harbor NRDA Monitoring and Stewardship Framework (2014), particularly pages 25-28 (the 2014 TC Guidance), as well as the Portland Harbor Natural Resource Trustee Council Long-Term Stewardship Funding Standards dated March 24, 2016 (the 2016 TC Guidance). The LTMP will also outline the transition of stewardship activities from the Project Sponsor to the LTS.

In addition to active stewardship of the site through the types of activities listed above, the Trustee Council expects that the Project's conservation features be permanently, legally protected prior to the end of the performance period.

The Need for Long-Term Stewardship

The Habitat Equivalency Analysis (HEA) model used to calculate ecological credit for a NRDA restoration project assumes that a given site will continue to provide ecological benefit to injured resources at least 300 years into the future. In practice, a variety of natural and anthropogenic phenomena threaten the ecological value of a project throughout its existence. Newly disturbed soils may activate a fallow seed bank that includes invasive species. Major flood events may occur 5, 15, or 50 years after a project is constructed and severely alter habitat element locations, elevations, or features. Decades in the future, project ownership or land ownership may be questioned or challenged by new land uses, new community members, or shifting management priorities. An LTMP, a stewardship fund, and permanent legal protection of the Project site are needed to ensure the Project's ecological integrity is maintained in perpetuity.

Long-Term Stewardship Funding

The Project's stewardship fund will fund the long-term stewardship tasks. A total of \$445,801.04 will be placed by the Project Implementer into the stewardship fund by Year 8 of the project's performance period. That stewardship fund and its operation are covered in Appendices G-5 and G-6. All costs associated with long-term maintenance and monitoring have been factored into the stewardship funding plan, through the PAR report, as detailed below. This funding covers, among other things, the following:

1. The transition of site management from the Project Sponsor to the LTS.
2. Surveys and inspections, including biotic surveys, inspections of project elements such as the roughened chute downstream of the pond and the stormwater outfall areas, and general site inspections (e.g., of wood assemblages, vegetation conditions, trails, and assessment of public use), on an as-needed basis to provide data for monitoring reports, which will be used to determine site maintenance requirements and priorities. The PAR report also provides funding for field equipment necessary to conduct these surveys.
3. Preparation and submittal of monitoring reports, as described above.
4. Site maintenance, including habitat maintenance. The LTS will be responsible for maintaining the turtle nesting areas (primarily clearing vegetation and debris to allow adequate solar access); maintaining fish access to the pond; addressing erosion as necessary by seeding or installing erosion control measures; addressing exotic animals at the site (e.g., feral cats and other nuisance non-native wildlife that might threaten the native fish and wildlife at the site), primarily by trapping and removing them, with guidance from ODFW as appropriate; and invasive vegetation

removal as necessary (including pulling weeds by hand and spot spraying with herbicide, as appropriate).

5. Additional habitat maintenance including, for example, removing loose branches from trees to maintain safe conditions near accessible areas; conducting miscellaneous clean-up measures after major flood events; planting native plants to replace those that have died or where bare ground exists due to removing non-native vegetation; and removing trash that accumulates in the pond, channels, or on land.
6. Meetings and outreach activities, including supervisor site visits to meet with the landowners.
7. Enforcement measures associated with reporting violations to the City, conservation easement holder, and/or Trustee Council or its designee, as appropriate.

Stewardship Roles

The Trustee Council has identified up to six roles that may be involved in long-term stewardship at the Project:

- Landowner
- Long-term steward (LTS)
- Conservation easement holder
- Stewardship fund manager
- Project implementer (or Project Sponsor)
- Trustee Council

A single entity may serve certain roles for multiple Portland Harbor NRDA restoration projects. For example, the Trustee Council has expressed a preference towards having a single entity serve as the long-term steward or stewardship fund manager for all Portland Harbor NRDA restoration projects.

Landowner

The Project is comprised of property owned by the Robinwood Riviere Property Owner's Association (RRPOA), the City of Gladstone (City), and a private landowner. Pursuant to agreements between the Project Sponsor and the landowners, copies of which were provided to the Trustee Council:

- (1) The landowners granted the Project Sponsor the exclusive right to, among other things, negotiate and establish all maintenance, monitoring and stewardship requirements with the Trustee Council.
- (2) The Project Sponsor has the right to enter the Project site for the purposes of implementing, monitoring and maintaining the Project. This right is transferable to the LTS.
- (3) The landowners agreed to execute property restriction documents, including the Interim Deed Restriction and Conservation Easement attached to the Habitat Development Plan. The Conservation Easement grants the conservation easement holder the right to preserve, protect, sustain, enhance and/or restore the Project's conservation values.

During the stewardship transition period, the Project Sponsor and LTS will communicate with the landowners concerning the transition. The Project Sponsor and LTS will involve the landowners and offer them an opportunity to provide input on the LTMP as it is finalized. A copy of the final LTMP will be provided to the landowners and a communication plan will be developed with the landowners so the landowners understand when the LTS and its contractors will be on site performing LTMP activities. Once the LTMP is in place and long term stewardship begins, it is anticipated the LTS will meet with the landowners on an as needed basis to discuss any issues that arise.

The landowners will continue to be responsible for certain activities in or around the Project site. The City will continue to maintain the Meldrum Bar Park and its associated infrastructure, such as the parking lot, restrooms, and the boat launch, all of which are located outside of the Project site. The LTS will be responsible for maintaining the two existing overlook areas and the public trail from the Meldrum Bar Park parking lot to the overlook areas, all of which are located within the Project site. This includes maintaining the fences that border those trails and overlook areas, replacing bark mulch as needed (with bark mulch provided by the City), maintaining signage that indicates that the site is a natural area and explains site rules and guidelines. The LTS will prune trees and shrubs as necessary to maintain access via the permitted trails, maintain views from the overlooks into the site and will decommission any additional trails that develop through public use. The City will be responsible for enforcing trespassing and other violations of City rules, regulations and other laws applicable to Meldrum Bar Park and the Project site (including, but not limited to, for example, camping, which is currently prohibited at the site and will continue to be prohibited). It is expected that the LTS will work with the City on any such issues it discovers. The City will also have the right to take action as it deems necessary for public health and human safety. An example would be the pruning of a tree that hangs over the Meldrum Bar Park parking lot. Except for emergencies, those actions will be taken in consultation with the LTS and Trustee Council.

The RRPOA will maintain the two staircases from their neighborhood, and the trail connecting the two staircases, all of which are located within the Project site, and will coordinate this work with the LTS. The RRPOA will also have the right to trim trees and other vegetation within the portion of the project site it owns as it deems necessary for public health and human safety. Except in cases of emergency, those actions will be taken in consultation with the LTS and Trustee Council.

Project Implementer

The Project Implementer (also known as Project Sponsor) for the Rinearson Natural Area Restoration Project is Rinearson Natural Area, LLC. Rinearson Natural Area, LLC is owned by Falling Springs. The Project Sponsor is responsible for the Project during the performance period and will be an essential contributor during the transition phase when an easement holder, the LTS, and stewardship fund manager are selected. Unless the Project Sponsor also serves in one of the other roles outlined here, the Project Sponsor's role will end once the transition to the long-term stewardship phase of the Project is complete.

Long Term Steward

The LTS is the entity responsible for monitoring and maintaining the Project after the performance period ends into perpetuity. The LTS will conduct ongoing on-the-ground monitoring and maintenance activities such as regular site visits, invasive species management, fence maintenance, and trash clean up. The LTS will also be responsible for administrative activities such as development of the LTMP (prior to beginning on-the-ground stewardship activities), development of annual maintenance plans, and reporting to the Trustee Council or its designee. The LTS will also be expected to coordinate with the easement holder, landowners, stewardship fund manager, and others as needed.

More specifically, as indicated above, the LTS (in coordination with the Project Sponsor) will communicate with the landowners concerning the transition into stewardship. The LTS will involve the landowners and offer them an opportunity to provide input on the LTMP as it is finalized. A copy of the final LTMP will be provided to the landowners and a communication plan will be developed with the landowners so the landowners understand when the LTS and its contractors will be on site performing LTMP activities. Once the LTMP is in place and long term stewardship begins, it is anticipated the LTS will meet with the landowners on an as needed basis to discuss any issues that arise.

During the stewardship phase, as indicated above, the LTS will, among other things, be responsible for maintaining the two existing overlook areas and the public trail from the Meldrum Bar Park parking lot to the overlook areas, all of which are located within the Project site. This includes maintaining the fences that border those trails and overlook areas, replacing bark mulch as needed (with bark mulch provided by the City), maintaining signage that indicates that the site is a natural area and explains site rules and guidelines. The LTS will prune trees and shrubs as necessary to maintain access via the permitted trails, maintain views from the overlooks into the site and will decommission any additional trails that develop through public use. The LTS will work with the City on enforcing trespassing and other violations of City rules, regulations and other laws applicable to Meldrum Bar Park and the Project site (including, but not limited to, for example, camping, which is currently prohibited at the site and will continue to be prohibited). The LTS will consult with the City in the event the City needs to take action necessary to protect public health and human safety.

The LTS will coordinate with the RRPOA as the RRPOA maintains the two staircases from their neighborhood, and the trail connecting the two staircases, all of which are located within the Project site. The LTS will also consult with the RRPOA when the RRPOA deems it necessary to trim trees and other vegetation within the portion of the project site it owns for public health and human safety.

Adequate funding to cover the LTS' responsibilities will be provided by the stewardship fund described in Appendices G-5 and G-6. All costs associated with long-term maintenance and monitoring have been factored into the stewardship funding plan, through the PAR report, as detailed in Appendices 5 and 6.

The LTS will be determined by the Trustee Council. This decision will be made before the long-term stewardship phase begins. Likely candidates for the role of LTS will be third-party groups, such as non-profit organizations with a natural resource conservation-oriented mission and restoration project management expertise. Although there may be significant temptation to allow various project implementers, landowners, or potentially responsible parties to provide long-term stewardship at individual restoration projects, the Trustee Council has a strong preference towards employing a single, outside entity to provide long-term stewardship services at all Portland Harbor NRDA restoration projects to ensure objectivity, maximum efficiency, and consistency among the projects. The initial agreement between the Trustee Council and the LTS may be termed in order to allow for a trial period to make sure that the steward is a proper fit for the needs of the Project. The LTS may choose to subcontract with other organizations for work crews, specialized technical assistance, or other activities as needed.

Conservation Easement Holder

The conservation easement holder (easement holder) shall be an organization qualified under ORS 271.715 (3) to hold a conservation easement. The easement holder's duties may include, but are not limited to the following tasks: receive conveyance of a permanent conservation easement; perform annual conservation easement monitoring to ensure that the terms of the easement are not violated; coordinate with the Trustee Council, landowners, Project Sponsor, LTS, and stewardship fund manager; conduct enforcement or legal defense of the easement as required by circumstances at the Project; report to the Trustee Council and partners on compliance with terms of the conservation easement and use of stewardship funds. Adequate funding to cover the cost of holding a conservation easement for the Project will be provided by the stewardship fund. To minimize risk, the Trustee Council recommends that easement holders investigate the possibility of getting insurance to support easement enforcement. Terrafirma is an example of an insurance program available to Land Trust Alliance members.

Prior to the end of the performance period, the Project site will be permanently protected with a conservation easement. A permanent easement holder shall be approved by the Trustee Council, in cooperation with the Project Sponsor, prior to the close of the performance period. Once the permanent easement holder is approved, a conservation easement deed running with the land and restricting the uses

of the Project consistent with the restoration plan, performance standards, and conservation values expressed therein will be recorded to ensure the protection of the Project in perpetuity.

In limited cases, a deed restriction may be used in lieu of a conservation easement to protect the conservation values of the Project. Such instances may include projects where the property is publicly owned, owned by a conservation-missioned organization, or other instances where the conservation values of the property are already otherwise reasonably protected in perpetuity. A deed restriction will be required during the performance period as an interim method of land protection until conservation easements can be secured for the properties.

Stewardship Fund Manager

The Trustee Council will seek a Stewardship Fund Manager (fund manager) that has an established relationship with the LTS. Likely candidates for the role may be a non-profit organization with a natural resource conservation-oriented mission and stewardship fund management expertise or a third-party investment management and advisory firm. The Trustee Council has a strong preference towards employing a single, outside entity to provide stewardship fund management services for all Portland Harbor NRDA restoration projects consistent with its preference for a single LTS entity. The Trustee Council's objective is to ensure objectivity, maximum efficiency, and consistency among the projects and a strong, single LTS and fund manager team is likely to further that objective.

The fund manager manages the stewardship fund. This entity will be responsible for managing the stewardship fund as a non-wasting fund that accrues sufficient interest to finance annual stewardship activities in perpetuity. The fund manager will be responsible for providing financial documentation and reporting to the Trustee Council on a regular basis. The fund manager will be expected to coordinate with the LTS and easement holder for the Project. If the LTS and easement holder for a given project are different entities, the fund manager may need to track and disperse funds to these entities separately. Given the Trustee Council's preference to pool stewardship funds from all Portland Harbor NRDA restoration sites into a single fund, the fund manager may also need to track expenses and income across multiple projects.

Trustee Council

The Trustee Council (or its designee) will provide oversight of the Project during the long-term stewardship phase. The Trustee Council or its designee(s) may review and oversee regular reporting of effectiveness monitoring results, site visits, maintenance activities, qualitative monitoring results (observational and photographic), enforcement issues, financial management, adaptive management activities, and descriptions of community involvement that will be provided to the Trustee Council or its designee by the LTS.

Long-Term Stewardship Tasks

Long-term stewardship tasks at the Project will likely include:

- Monitoring
- Maintenance, including but not limited to maintenance of the existing park trail, the fencing around the trail and the overlook
- Program Management
- Community Relations and Enforcement, including coordination with landowners during the stewardship transition phase, explanation of stewardship tasks, assisting with trespass and other legal enforcement and consultation with landowners on vegetation removal/trimming/pruning deemed necessary for public health and safety
- Reporting, Documentation, and Data Management

Some key stewardship tasks specific to the Project are outlined below.

Initial Site Assessment

Long-term stewardship begins 10 years into the future or when final performance standards have been met. For the Project, this includes the establishment or restoration of the attributes described in Section 3.2 of the Habitat Development Plan.

Pursuant to the 2014 and 2016 TC Guidance, it is expected that once the Project enters the LTS's portfolio, the LTS will conduct an initial site assessment. The initial site assessment will document each attribute identified in Section 3.2 of the Habitat Development Plan through site visit observations, notes, photo documentation, and mapping as needed to establish baseline conditions. These baseline conditions will establish what has been agreed to and what should be maintained or adaptively managed through time.

The LTS will use this information, along with the effectiveness monitoring results and adaptive management techniques, to create a site-specific LTMP. It is understood the LTMP should include a schedule for annual site visits, monitoring activities, and anticipated maintenance needs. The LTMP will also provide a framework for communication with the landowners and decision-making should an unexpected event occur (2014 TC Guidance p. 27).

Annual Stewardship Plan (activities)

The LTS will complete or manage the inspection and maintenance of the Project. Several tasks are described below. The focus and detail of some tasks are presently unknown but will be clarified as post project conditions become established and finalized when the Initial Site Assessment is completed.

Annual site visits will document changes considered to be a reduction in the structure and function of the created habitat. Recommendations for management actions required to bring deficiencies back to acceptable standards would then be completed and implemented. The following are inspection/monitoring and maintenance duties the LTS may undertake or contract once the long-term stewardship program begins. Some of the inspections will require knowledge of plant ecology, fish and wildlife biology, hydrology, geomorphology and engineering to understand the original intent of the work, identify future changes in habitat condition and function, and recommend maintenance actions.

Vegetation Management

A major component of the Project is the removal of invasive plant species and the replanting of native plants throughout the site. Native plantings and invasive plant control will include upland, shoreline, riparian, and wetland zones throughout the Project site. Controlling invasive plants will be a continual process on the site and may require annual maintenance into the long term stewardship period. Invasive plant control may include mechanical or chemical treatments as needed to control invasive species.

Vegetation management also includes management of vegetation growth (native or invasive) along trails or other access points. Overgrown areas that prevent access would need to be cut back to maintain access.

General Habitat Inspection and Maintenance Need

Habitat degradation or uplift could occur slowly over time or rapidly during a flood event. In the coming decades, comparison to the Initial Site Assessment will provide guidance as to when intervention is required to maintain habitat, or when natural processes that slowly change habitat should be allowed to continue.

Infrastructure Maintenance, Inspection and Clean-Up

Access to the site brings with it the need to control public use and movement. Fences and trails will all require inspection and maintenance when or where they exist. Trespassing, dumping, or other illegal activities may occur at the site, and would require time and labor to manage. It is expected that the landowners will manage for illegal activities. The LTS and/or conservation easement holder will also have the right to enforce the law and prohibit illegal activities at the Project.

Neighborhood Communication

Long-term project success will depend on local community support of restoration actions. Local project site interest and access could aid the LTS by providing accounts of illegal activity or physical problems at the site in-between steward site visits. Problems identified by the local community could be addressed quickly and more efficiently, potentially reducing environmental loss and repair costs. Building and maintaining this type of community relationship will require reaching out to local interest groups through email, meeting attendance and/or personal communications.

Maintenance and preservation of the Meldrum Bar Park has attracted many volunteer groups historically. While those groups are temporarily not performing activities at the Park in order to allow implementation of the Project, it is anticipated that once construction of the Project is completed, those groups will again play a role in the maintenance and preservation of the site. The RRPOA has historically been actively involved in the maintenance of their property as well as the neighboring city property and their involvement is expected to continue over time.

Documentation and Annual Reporting

All entities involved with long-term stewardship of the Project will provide documentation of monitoring, adaptive management, and stewardship tasks to the Trustee Council or its designee(s) and other interested parties on a regular basis. At a minimum, the documents outlined in Table 1 will be provided to the Trustee Council or its designee(s) as they are developed or on an annual basis, depending on their frequency.

In addition, restoration site information and data should be made available to the general public in the form of a website, online database, and/or online mapping feature so that the general public can access information about the site and stay involved in events such as work parties and community discussions.

Product	Purpose	Frequency
Initial Site Assessment	Describe baseline condition of site when long-term stewardship begins.	One time
Long-term Stewardship Plan	Outlines roles and responsibilities for entities involved with long-term stewardship at the site. Provides methodology and actions to maintain ecological values and benefits during the lifetime of the project.	Once at the beginning and then update periodically as needed.
Maintenance Report	Describes each year's activities based on priority actions.	Annually
Monitoring Report	Provides current condition information and management and maintenance recommendations for the following year.	Annual
Fiscal Report	Document interest accrual, spending, and overall standing of long- term stewardship fund.	Annual
Notification of Enforcement Issue	Notify the Trustee Council or its designee of enforcement issue, whether assistance is needed to resolve the problem, and report on resolution of enforcement issue.	As needed

Appendix G-5: Stewardship Fund Agreement

Appendix G-5: Stewardship Fund Agreement

[Note: This stewardship fund agreement form is subject to change.]

STEWARDSHIP FUNDING AND MANAGEMENT AGREEMENT FOR THE RINEARSON RESTORATION PROJECT

THIS AGREEMENT ("Agreement") is made and entered into on _____, 2018 (the "Effective Date"), by and among RINEARSON NATURAL AREA, LLC, an Oregon limited liability company ("Restoration Implementer"), and the NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ("NOAA"), on behalf of the Department of the Commerce, the UNITED STATES FISH AND WILDLIFE SERVICE ("USFWS"), on behalf of the Department of Interior, the OREGON DEPARTMENT OF FISH AND WILDLIFE ("ODFW"), the CONFEDERATED TRIBES OF THE GRAND RONDE COMMUNITY OF OREGON, the CONFEDERATED TRIBES OF SILETZ INDIANS, the CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION, the CONFEDERATED TRIBES OF THE WARM SPRINGS INDIAN RESERVATION OF OREGON, and the NEZ PERCE TRIBE (collectively the "Trustees"), and _____, as the Manager of the Stewardship Fund (the "Stewardship Fund Manager"). The Restoration Implementer, the Trustees, and the Stewardship Fund Manager are collectively referred to herein as the "Parties."

WITNESSETH:

WHEREAS, the Restoration Implementer has received approval from the Trustees to develop a restoration project known as the Rinearson Restoration Project (or sometimes simply, the "Restoration Project") located on certain real property containing approximately 34 acres in the City of Gladstone, Oregon. The 34-acre Restoration Project is more particularly described in the Habitat Development Plan for the Restoration Project (the "Habitat Development Plan").

WHEREAS, the Habitat Development Plan requires that Restoration Implementer fund a permanent fund for the long-term stewardship of the Restoration Project.

WHEREAS, under this Agreement, the Restoration Implementer is required to fund the stewardship fund and the Stewardship Fund Manager is required to manage the stewardship fund and make payments to the Steward (to be identified as described in Section 15.b below), who is required to utilize the payments from the stewardship fund for long term management, maintenance, and monitoring of the Restoration Project, and

WHEREAS, the Restoration Implementer and Trustees desire, and the Stewardship Fund Manager is willing and able, to create such a stewardship fund, subject to the terms and conditions hereof;

NOW THEREFORE, the Parties agree as follows:

- 1) NAME OF STEWARDSHIP FUND. There is hereby established in the Stewardship Fund Manager, and as a part thereof, a fund designated as the Rinearson Restoration Project Stewardship Fund (hereinafter referred to as “the Stewardship Fund”) to receive contributions in the form of money, and to administer the same.
- 2) PURPOSE. The primary purpose of the Stewardship Fund is to fund the management, maintenance, and monitoring of the Restoration Project as described in the Long-Term Management Plan for the Restoration Project (“Management Plan”) attached to the Restoration Plan as Appendix G-4, along with the Site-Specific Long-Term Stewardship Plan (“Stewardship Plan”), which is in development.
- 3) FUNDING. Per the Restoration Plan, Restoration Implementer is required to provide \$445,801.04 as the Principal Amount of the Stewardship Fund for the Restoration Project (the “Principal Amount”). All grants, bequests, and devises to this Stewardship Fund shall be irrevocable once accepted by the Stewardship Fund Manager. Nothing contained in this Section 3 shall preclude a transfer of the Stewardship Fund to a subsequent entity that has been approved by both the Trustees and the Restoration Implementer. Restoration Implementer shall fund the Stewardship Fund in the following manner:
 - a) The Principal Amount will be raised by contributing \$2,591.87 from the sale of the first 172 DSAY credits into the Stewardship Fund.
 - b) In the event that the account is not fully funded at time of release for the final 10% of the expected DSAY credits, then Restoration Implementer shall fund the difference in order to have the final 10% released.
- 4) DISTRIBUTION. Upon full funding of the Stewardship Fund at the Principal Amount, the annual earnings allocable to the Stewardship Fund, net of the fees and expenses, shall be committed, granted or expended solely for the purposes of the Stewardship Fund as set forth in Section 2 above. The Annual Fee shall be paid to the Stewardship Fund Manager per Section 12 below.
 - a) Payments. Unless otherwise agreed, the Stewardship Fund Manager will pay the Steward an annual payment to be agreed to by Restoration Implementer, Steward and Stewardship Fund Manager.
 - i) Within 60 days of the Steward’s submission of its annual work plan, the Steward, Stewardship Fund Manager, and the Trustees or the Trustees' designee(s) shall discuss the annual work plan and agree upon the distribution to be paid from the Stewardship Fund for that year, which amount generally will be disbursed as requested, except where the requested amount would jeopardize the Principal Amount which is not permitted per Section 11 below.
 - ii) The Stewardship Fund Manager will pay the Steward the agreed upon distribution at such time as is agreed to by Steward and Stewardship Fund Manager.

- iii) In the case of emergencies or unforeseen funding needs, the Steward may submit a request for additional disbursement at any time, which amount generally will be disbursed as requested, except where the requested amount would jeopardize the Principal Amount which is not permitted per Section 11 below.
 - iv) The Stewardship Fund Manager shall provide the Restoration Implementer, Steward, and the Trustees or the Trustees' designee(s) with an annual accounting of the Stewardship Fund that includes the rate of return received, the payments distributed, and the remaining total no later than 60 days after the end of Stewardship Fund Manager's fiscal year.
- b) Commencement of Payment. The Stewardship Fund Manager shall not commence making payments to the Steward until the close of the Restoration Project's Performance Period.
- 5) VARIANCE. If the Stewardship Fund Manager ceases to be a qualified charitable organization, if the Stewardship Fund Manager proposes to dissolve, if the Stewardship Fund Manager goes into bankruptcy, if the Stewardship Fund is dissolved, or if this Agreement is terminated, the assets of the Stewardship Fund shall be distributed to a qualified third-party entity designated by the Trustees or the Trustees' designee(s) in agreement with the Restoration Implementer and the Steward. Bankruptcy shall include (i) the filing of a voluntary petition under any federal or state law for the relief of debts; (ii) the continued pendency of an involuntary proceeding under any such law on the 60th day after its filing, or the entry of an order for relief under any such involuntary proceeding, whichever occurs first; (iii) the making of a general assignment for the benefit of the Stewardship Fund Manager's creditors; (iv) the seizure by a sheriff, receiver, or trustee of a substantial portion of the Stewardship Fund Manager's assets.
- 6) ADMINISTRATIVE PROVISIONS. Notwithstanding anything herein to the contrary, the Stewardship Fund Manager shall hold the Stewardship Fund, and all contributions to the Stewardship Fund, subject to the provisions of the applicable federal and Oregon laws, and the Stewardship Fund Manager's Articles of Incorporation and Bylaws.

Upon request by Restoration Implementer, Trustees or the Trustees' designee(s), or the Steward, the Stewardship Fund Manager agrees to provide a copy of the annual examination of the finances of the Stewardship Fund Manager as reported on by independent certified public accountants.

- 7) AMENDMENT. This Agreement may be amended only by written agreement of the Parties.
- 8) CONDITIONS FOR ACCEPTANCE OF FUNDS. The Parties agree and acknowledge that the Stewardship Fund is subject to such terms and conditions, including but not by way of limitation, provisions from:
 - a) The Habitat Development Plan for the Rinearson Restoration Project; and

- b) The Deed Restriction and any future Conservation Easement for the Rinearson Restoration Project as recorded in the official records of the City of Gladstone and/or Clackamas County.
- 9) NOT A SEPARATE TRUST. The Stewardship Fund shall be a component part of the Stewardship Fund Manager and nothing in this Agreement shall affect the status of the Stewardship Fund. All money and property in the Stewardship Fund shall be held as permanently restricted general assets of the Stewardship Fund Manager, but shall not be segregated as trust property of a separate trust. For the avoidance of doubt, nothing contained in this Section 9 shall preclude a transfer of the Stewardship Fund to a subsequent entity that has been approved by both the Trustees and the Restoration Implementer.
- 10) ACCOUNTING. The receipts and disbursements of this Stewardship Fund shall be accounted for separately and apart from any other Stewardship Funds handled by the Stewardship Fund Manager.
- 11) INVESTMENT OF FUNDS. The Stewardship Fund Manager shall:
- a) Have all powers necessary to carry out the purposes of the Stewardship Fund, including, but not limited to, the power to retain, invest, and reinvest the Stewardship Fund; provided that the Stewardship Fund Manager shall use these powers only as consistent with the investment objectives set forth in Section 11.c. below.
 - b) Have a duty as provided in Section 11.e to invest the Stewardship Fund prudently with the objective that the Principal Amount shall not be invaded and the Stewardship Fund does not suffer financial loss. However, the Stewardship Fund may suffer an investment loss from time to time; and, provided that the Stewardship Fund was prudently invested, the Stewardship Fund Manager is not responsible or liable for such loss of principal.
 - c) Implement the following investment objectives for the Stewardship Fund: (1) preserving the real (after inflation) value of the Stewardship Fund portfolio assets; and (2) growing the total value of the assets. The Stewardship Fund Manager's primary investment objective is the preservation of principal with investment growth being secondary. While an objective, the Parties do not guarantee that the Stewardship Fund will produce without exception an annual revenue stream adequate to support the costs of long-term stewardship expenses. If the Steward, Restoration Implementer, or the Trustees or the Trustees' designee(s) are concerned that the Stewardship Fund Manager is not achieving a sufficient rate of return to support the primary purpose set forth in Section 2 while preserving the Principal Amount, then the process set forth in Section 14.c shall be followed.
 - d) Credit the Stewardship Fund for all interest earned and, as appropriate, re-invest all such interest.

- e) Discharge its duties with respect to the Stewardship Fund with the care, skill, prudence, and diligence under the circumstances then prevailing, which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims, and shall exercise wise and prudent investment strategies in order to minimize risk, while maximizing the value of the Stewardship Fund.

12) ANNUAL FEE. It is understood and agreed that the Stewardship Fund Manager shall require \$_____ as an Annual Fee¹ to administer the Stewardship Fund upon such time as the Stewardship Fund is fully funded, which fee shall be charged annually against the Stewardship Fund, and shall be withdrawn once each year at a time to be agreed upon by the Restoration Implementer, the Stewardship Fund Manager and the Trustees. Until the principal of the Stewardship Fund is funded at the Principal Amount pursuant to Section 3 above, the Restoration Implementer shall be responsible for paying the Annual Fee to the Stewardship Fund Manager.

13) CONSTRUCTION.

- a) References to any provision of the Internal Revenue Code shall be deemed references to the U.S. Internal Revenue Code of 1986 as the same may be amended from time to time and the corresponding provision of any future U.S. Internal Revenue Code.
- b) “Qualified charitable conservation organization” as used in this agreement means an organization described in Section 501(c) (3) of the Internal Revenue Code and that is not a private foundation under Section 509(a) of the Internal Revenue Code.
- c) It is intended that the Stewardship Fund shall be a component part of the Stewardship Fund Manager and that nothing in this Agreement shall affect the status of the Stewardship Fund Manager. This Agreement shall be interpreted in a manner consistent with the foregoing intention and so as to conform to the requirements of the Internal Revenue Code and any regulations issued pursuant thereto applicable to the intended status of the Stewardship Fund Manager.

14) TERMINATION. This Agreement may be terminated under the following circumstances:

- a) Upon mutual written agreement of the Stewardship Fund Manager, the Trustees or the Trustees’ designee(s), and the Restoration Implementer (provided the Stewardship Fund Manager shall automatically and without any further action required replace the Restoration Implementer in this Section once long term stewardship activities begin).

¹ The Annual Fee will be determined with the Manager once one is selected. Note, a budget of \$3,523.21 has been incorporated into the Funding for this Annual Fee, which amounts to 25% of the estimated stewardship costs.

- b) If the Stewardship Fund Manager fails to observe the terms and conditions of this Agreement, any other Party, subject to prior notification to and upon receipt of concurrence from the Trustees or the Trustees' designee(s), may terminate this Agreement upon thirty (30) days written notice of termination. Any notice for termination of this Agreement for default shall specify the nature of the default. The defaulting party shall have thirty (30) days following the receipt of such notice to cure the specified default. Timely cure of a specified default will avoid termination for that default.
- c) If the Restoration Implementer (provided the Steward shall automatically and without any further action required replace the Restoration Implementer in this Section 14.(c) once long term stewardship activities begin), Steward and/or the Trustees determines that the Stewardship Fund as managed by the Stewardship Fund Manager has failed to achieve a sufficient rate of return, consistent with Section 11.c, to support the primary purpose set forth in Section 2 while preserving the Principal Amount over a two-year period:
- i) The Stewardship Fund Manager, Restoration Implementer, and the Trustees or the Trustees' designee(s) shall discuss adjusting the asset allocation of the Stewardship Fund in order to achieve a better rate of return. The Stewardship Fund Manager, Restoration Implementer, and the Trustees or the Trustees' designee(s) shall work collaboratively during this discussion, and the Stewardship Fund Manager shall consider in good faith any suggestions by the Restoration Implementer and the Trustees or the Trustees' designee(s) for asset reallocation. The Stewardship Fund Manager shall have six months following this discussion to improve the rate of return of the Stewardship Fund (the "Return Improvement Period").
 - ii) If after the Return Improvement Period, the rate of return of the Stewardship Fund has not improved to achieve a sufficient rate of return, consistent with Section 11.c, to support the primary purpose set forth in Section 2 while preserving the principal amount, the Restoration Implementer with written approval of the Trustees or the Trustees' designee(s) may terminate this Agreement, provided that the Steward has identified a qualified third-party entity who is qualified to hold and shall accept the Stewardship Fund. Any third-party successor Stewardship Fund Manager identified by the Restoration Implementer pursuant to this Section, Section 14.c.ii, is subject to the approval of the Trustees or the Trustees' designee(s) and such approval shall not be unreasonably withheld.

15) TRANSFER PROVISIONS.

- a) Stewardship Fund Manager - The Parties acknowledge that the Stewardship Fund Manager named above is intended initially to act as an interim manager of the Stewardship Fund and that the Parties desire to identify a long-term manager for the Stewardship Fund. Either the Trustees or the Restoration Implementer (provided the Steward shall automatically and without any further action required replace the

Restoration Implementer in this Section once long term stewardship activities begin) may elect to transfer the Stewardship Fund to a third-party subject to the written agreement of the other party, which shall not be unreasonably withheld, and written notice to the Stewardship Fund Manager. In the event written notice of the election to transfer the Stewardship Fund is delivered to the Stewardship Fund Manager, then the Stewardship Fund Manager shall cooperate and promptly transfer the Stewardship Fund as directed in the notice within a reasonable period of time.

- b) Steward - The Parties acknowledge that the Trustees desire to identify a long-term Steward for the Restoration Project. Nothing contained in this Agreement shall preclude a transfer of the funding of the long-term stewardship activities to a subsequently approved Steward, subject to the written approval of the Trustees and the Restoration Implementer. Such written approval shall not be unreasonably withheld.

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Appendix G-6: Stewardship Funding Plan

Appendix G-6: Stewardship Funding Plan

Overview and Basis for Calculating the Funding Plan

The attached spreadsheet calculates the estimated annual long-term stewardship budget for the Project. The budget is segregated into tasks and subtasks. A description of the larger overall task is provided below and specific subtask descriptions are included in the spreadsheet.

The budget was developed by Bobby Proutt of Falling Springs, LLC and Gary Howard and Dave Kordiyak with the Wetlands Group. Falling Springs manages 23 restoration projects across the United States and the Wetlands Group manages 15 projects in Idaho. Both companies have significant experience developing these types of budgets. Bobby Proutt and Gary Howard oversee all activities at their respective companies. Gary has 24 years of experience in the industry. Dave Kordiyak is a Wetland Biologist with 30 years of experience in the industry.

This budget is a conservative (high) estimate of the total long term stewardship costs. Key conservative assumptions were made, including:

- We assumed all activities were outsourced to third party contractors or consultants at prevailing rates. Internalizing any of these activities will significantly reduce cost though. Given the trustee's desire to have one long-term steward for multiple projects, it is reasonable to assume a long-term steward will internalize some of these activities, as opposed to outsourcing them all.
- We assumed volunteer groups perform none of these activities. Historically, several groups have performed vegetation management and trash collection within the Park. These groups continue to ask how they can participate. Therefore, it is reasonable to expect that volunteer groups will participate in the long-term stewardship activities, thereby reducing actual cost.
- We assumed the Robinwood Riviere Property Owners' Association (RRPOA) members do not participate in these activities. Much like the volunteer groups, the RRPOA has a history of volunteering their time to maintain the project site and members have expressed an interest in continuing to perform these activities.
- We assumed the purchase of items for this project, without assuming those items could be used for stewardship activities at any other site. For example, we assumed 100% of the cost of a GPS unit even though that unit could be used across multiple projects should the long-term steward provide stewardship for multiple projects.
- We assumed the use of items that may not in fact be necessary. For example, we assumed an annual boat rental to conduct surveys. It may be possible to conduct those surveys without renting a boat. For example, could a kayak be used as opposed to a boat rental?

Stewardship Task Explanation

Monitoring

Monitoring will assess the Project's overall condition, including surveys and inspections related to invasive wildlife and plant species colonization, hydrology, fish passage, erosion, the integrity of project elements (such as the roughened channel and large wood assemblages), and/or other aspects that may warrant management actions.

Maintenance

Invasive vegetation removals as necessary (including pulling weeds by hand and spot spraying with herbicide as appropriate); addressing erosion as necessary by installing erosion control measures or seeding; addressing exotic animals at the site (e.g., feral cats and other nuisance non-native wildlife that might threaten the native fish and wildlife at the site), primarily by trapping and removing them, with guidance from ODFW as appropriate; and maintain turtle nesting areas (clearing shrubby vegetation and debris to allow adequate solar access). Additional habitat maintenance measures that the Long-Term Steward will be responsible for could include removing branches from trees to maintain safe conditions near accessible areas; conducting miscellaneous clean-up measures after major flood events; planting native plants to replace those that have died or where bare ground exists due to removing non-native vegetation; and removing trash that accumulates in the pond, channels, or on land.

Program Management – Community Relations and Enforcement

Community relations and enforcement will include maintaining the two existing overlook areas and the public trail from the Meldrum Bar Park parking lot to the overlook areas. This will include maintaining the fences that border those trails and overlook areas, replacing bark mulch as needed (bark mulch provided by the City), maintaining signage that indicates that the site is a Natural Area and explains site rules and guidelines. In addition, trees and shrubs will be pruned as necessary to maintain views from the overlooks and trails that develop from public use will be decommissioned and blocked by placing logs and brush over the trails and planting native vegetation. Community outreach volunteers will inform visitors of the significance of the site, its Natural Area designation and explain the site rules. Enforcement will include engagement with local law enforcement as needed to discontinue or deter camping, beach or upland campfires or other harmful or nuisance activities.

Program Management – Reporting, Documentation and Data Management

Provides documentation of all monitoring, adaptive management, and stewardship tasks to the Trustee Council or its designee(s) and other interested parties on a regular basis.

Funding

Per the attached analysis, \$445,801.04 is the required Principal Amount of the Long-Term Stewardship for the Restoration Project. At least \$2,591.87 dollars per DSAY shall be deposited into DOI's NRDAR Fund from the sale of the first 172 DSAY credits. RNA LLC will deposit the funds within 60 days of when the credits are sold, and will provide notice to FWS when funds are to be deposited. The amount per DSAY is calculated such that the entire long term stewardship amount will be fully funded by year 8 of the Restoration Project's performance period. In the event that the amount is not fully funded at time

of release for the final 10% of the expected DSAY credits, then the Project Implementer will fund the difference in order to have the final 10% of the DSAY credits released.

Financial Summary	
Rinearson Natural Area	
First Budget Year	
Item Descriptions	
Initial Financial Requirements	
Management Costs	\$ 4,000.00
Contingency Expense (10%)	\$ 400.00
Total Initial Management Costs and Contingency	\$ 4,400.00
Administrative Costs of Total Initial Management Costs (25%)	\$ 1,000.00
Total Initial Costs, including Administrative	\$ 5,400.00
Annual Ongoing Financial Requirements	
Total Est. Long Term Estimated Costs and Expenses (see below for detail)	\$ 12,683.55
Contingency Expense	\$ 1,409.28
Ongoing Management Total Costs (with contingency)	\$ 14,092.83
Administrative Costs of Total Costs	\$ 3,523.21
Total Ongoing Costs including Administrative	\$ 17,616.04
Endowment Requirements for Ongoing Stewardship	
Endowment to produce income of \$17,616.04 (Stewardship costs are based on 4% of endowment earnings per year)	\$ 440,401.04
Endowment per acre	\$ 13,282.70
Ongoing management per year is	\$ 17,616.04
Resulting in a per acre per year cost of	\$ 530.60
Total Funding Required (total initial administrative costs and endowment)	\$ 445,801.04

Leave table below, its linked to the above table

Portland Harbor NRDA Restoration Project Long-Term Stewardship Budget											
Property Title: Rinearson Natural Area											
Stewardship Task	Subtask	Item or Responsible Party	Specific Description	Unit	Number of Units	Cost/Unit	Cost	Frequency	Cont. %	Total Annual Cost	
Monitoring											
	BIOTIC SURVEYS										
		Wildlife Biologist	Monitor site for invasive wildlife species and fish passage	Hours	16.00	85.00	\$ 1,360.00	1	10%	\$ 1,496.00	
		Plant Ecologist	Monitor and Mapping Noxious Weed	Hours	8.00	85.00	\$ 680.00	1	10%	\$ 748.00	
	SURVEY PROJECT ELEMENTS										
		Geomorphic Inspection	Inspect Roughened Channel	Hours	4.00	110.00	\$ 440.00	1	10%	\$ 484.00	
		Inspect Stormwater	Inspect Stormwater Outfall	Hours	2.00	110.00	\$ 220.00	1	10%	\$ 242.00	
	FIELD EQUIPMENT										
		Boat	Boat Rental	Day	1.00	500.00	\$ 500.00	1	10%	\$ 550.00	
		Camera 35mm/lens	Camera	Item	1.00	300.00	\$ 300.00	10	10%	\$ 33.00	
		GPS	GPS Rental	Item	1.00	300.00	\$ 300.00	10	10%	\$ 33.00	
		Trash Bags	Trash Bags	Item	1.00	7.00	\$ 7.00	1	10%	\$ 7.70	
		Vehicle	Mileage	Mile	200.00	1.18	\$ 236.00	1	10%	\$ 259.60	
		Sampling Gear	Misc. Field Gear	Item	1.00	50.00	\$ 50.00	1	10%	\$ 55.00	

Maintenance											
	HABITAT MAINTENANCE										
		Shrub Maintenance	Maintain Turtle Nesting Areas	Hours	8.00	25.00	\$	200.00	3	10%	\$ 73.33
		Erosion Control	Place Temp Erosion/Sediment Control	Hours	16.00	25.00	\$	400.00	5	10%	\$ 88.00
		Erosion Control	Place Temp Erosion/Sediment Control	Dollars	1.00	200.00	\$	200.00	5	10%	\$ 44.00
		Erosion Control	Seed Scoured or bare soil	Dollars	1.00	200.00	\$	200.00	5	10%	\$ 44.00
		Exotic Animal Control	Trap or eliminate	Hours	8.00	75.00	\$	600.00	5	10%	\$ 132.00
		Exotic Plant Control	Pull-dig weeds by hand	Hours	32.00	25.00	\$	800.00	1	10%	\$ 880.00
		Exotic Plant Control	Spot Spraying of weeds	Hours	16.00	50.00	\$	800.00	1	10%	\$ 880.00
		Maintain Safe Conditions	Remove Low Branches	Hours	4.00	25.00	\$	100.00	1	10%	\$ 110.00
		Major Flood Clean-up	Miscellaneous Clean-up	Hours	40.00	25.00	\$	1,000.00	50	10%	\$ 22.00
		Plant Procurement	Purchase Native Vegetation	Dollars	1.00	300.00	\$	300.00	5	10%	\$ 66.00
		Trash Removal	Remove Trash- Trail	Hours	8.00	25.00	\$	200.00	1	10%	\$ 220.00
		Trash Removal	Remove Trash- Land	Hours	8.00	25.00	\$	200.00	1	10%	\$ 220.00
		Trash Removal	Remove Trash- Pond	Hours	8.00	25.00	\$	200.00	1	10%	\$ 220.00
		Replace Vegetation	Plant native Vegetation	Hours	32.00	25.00	\$	800.00	10	10%	\$ 88.00
	MAINTENANCE EQUIPMENT										
		Tools for Maintenance	Misc. tools as needed	Dollars	1.00	50.00	\$	50.00	1	10%	\$ 55.00
Program Management											
Community Relations and Enforcement											
	PUBLIC SERVICES										
		Decommission trails	Place Logs and Brush and Replant	Hours	20.00	25.00	\$	500.00	1	10%	\$ 550.00
		Maintain Fences	Replace Fence Boards	Hours	8.00	25.00	\$	200.00	5	10%	\$ 44.00
		Maintain Fences	Purchase Fence Boards	Dollars	1.00	200.00	\$	200.00	1	10%	\$ 220.00
		Maintain Fences	Replace Fence Posts	Hours	16.00	25.00	\$	400.00	10	10%	\$ 44.00
		Maintain Fences	Purchase Fence Posts	Dollars	1.00	800.00	\$	800.00	10	10%	\$ 88.00
		Trail Maintenance	Remove/Replace Bark	Hours	16.00	25.00	\$	400.00	1	10%	\$ 440.00
		Maintain Signage	Replace/Install Signage	Dollars	1.00	100.00	\$	100.00	5	10%	\$ 22.00
		Maintain Views From Overlooks	Prune Vegetation	Hours	4.00	25.00	\$	100.00	1	10%	\$ 110.00
		Provide Community Outreach	Volunteer Supervision	Hours	24.00	20.00	\$	480.00	1	10%	\$ 528.00
	OPERATIONS										
		Communications/Meetings	Meetings With RRPOA and City Police	Hours	5.00	55.00	\$	275.00	1	10%	\$ 302.50
		Communications/Meetings	Onsite Meetings w/ Conservation Easement Holder	Hours	6.00	59.50	\$	357.00	1	10%	\$ 392.70
		Supervisor Site Visit	Site Inspection	Hours	3.00	55.00	\$	165.00	1	10%	\$ 181.50

Reporting, Documentation, and Data Management										
REPORTING										
		Annual Review	Annual Easement Review	Hours	8.00	150.00	\$ 1,200.00	1	10%	\$ 1,320.00
		Legal Defence Insurance Coverage		LS	3.00	60.00	\$ 180.00	1	10%	\$ 198.00
		Annual Fiscal Report	Document interest accrual, spending, and overall standing of long-term stewardship fund.	Hours	12.00	55.00	\$ 660.00	1	10%	\$ 726.00
		Maintenance Plan	Describes each year's activities based on priority actions.	Hours	8.00	55.00	\$ 440.00	1	10%	\$ 484.00
		Monitoring Reports	Provides current condition information and management and maintenance recommendations	Hours	20.00	55.00	\$ 1,100.00	1	10%	\$ 1,210.00
		Notification Of	Notify the Trustee Council or its designee of enforcement issue and whether assistance is needed to resolve the problem.	Hours	1.00	55.00	\$ 55.00	1	10%	\$ 60.50
		Stewardship Plan	Provides prioritization methodology and actions among sites.	Hours	20.00	55.00	\$ 1,100.00	10	10%	\$ 121.00
Subtotal										\$ 14,092.83
Administration (25%)										\$ 3,523.21
Total										\$ 17,616.04

Note, this sheet uses 25% for administration, the PAR used 23.8% of the subtotal and changes numbers above.

Appendix G-8: Funding for Ecological Monitoring

**Appendix G-8:
Funding for Ecological Monitoring**

Results from monitoring will be reported to the Trustee Council. Formal monitoring reports that include a full account of methods and present results of data analysis will be prepared and submitted to the Trustee Council in Years 1, 2, 3, 4, 5, 7 and 10. Analysis methods will follow those outlined in Table 3 from the Portland Harbor NRDA Monitoring and Stewardship Framework (Trustee Council 2014), as amended. In Years 6, 8, and 9 a brief memorandum will be prepared that summarizes monitoring data from parameters requiring annual efforts and includes qualitative site observations recorded during site visits. During all years monitoring reports will also include a log of all maintenance or adaptive management activities conducted during the year, including but not limited to activities such as invasive plant management, trash removal, native vegetation planting, and site visits to check for trespass. The log will describe the date, level of effort (number of individuals or labor hours), and a description of the work performed. Attached are the following:

- Detail on the performance criteria and associated monitoring and reporting schedule, and budget
- Table illustrating annual budget to perform the monitoring tasks

Annual Totals for Ecological Monitoring

Year	Fieldwork, lab and direct costs	Reporting and Data Analysis	20% Contingency	Total Est	Notes
1	\$35,405	\$16,000	\$10,281	\$61,686	Mapping of all installed plantings and other Yr 1 items
2	\$11,220	\$12,000	\$4,644	\$27,864	Includes a Formal Report
3	\$55,805	\$12,000	\$13,561	\$81,366	Includes a Formal Report
4	\$8,160	\$12,000	\$4,032	\$24,192	Includes a Formal Report
5	\$55,805	\$12,000	\$13,561	\$81,366	Includes a Formal Report
6	\$3,060	\$1,600	\$932	\$5,592	Informal Report/Memo
7	\$51,215	\$12,000	\$12,643	\$75,858	Includes a Formal Report
8	\$3,060	\$1,600	\$932	\$5,592	Informal Report/Memo
9	\$3,060	\$1,600	\$932	\$5,592	Informal Report/Memo
10	\$55,805	\$12,000	\$13,561	\$81,366	Includes a Formal Report
Total	\$282,595	\$ 92,800	\$75,079	\$450,474	

Monitoring
6.3 Geomorphic and Structural Habitat Monitoring

6.3.1.Habitat Structures		Location	Monitoring Method	Performance standard	Monitoring Year	Cost per Hour	# of People	Hours Worked	# of Days	# of Weeks	# of Months	# of Years	Total Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10		
6 Veg	6.5.1 Emergent Marsh	Emergent Marsh Restoration - Areas within draw down zone after pond modification			3	\$85	2	10	4	1	1	1	\$6,800				\$6,800								
					4	\$85	2	10	4	1	1	1	\$6,800				\$6,800								
					5	\$85	2	10	4	1	1	1	\$6,800					\$6,800							
				Visual cover estimate using systematic placement of 1m2 quadrats with random start along permanent sub-transects. Spacing to include min. 20 plots. Analyses to include sample size Analyses, sample mean with 80% confidence interval for native and non-native species, native species richness/diversity per plot	50% or greater cover by native herbaceous plant species	7	\$85	2	10	4	1	1	1	\$6,800								\$6,800			
				Visual cover estimate using systematic placement of 1m2 quadrats with random start along permanent sub-transects. Spacing to include min. 20 plots. Analyses to include sample size Analyses, sample mean with 80% confidence interval for native and non-native species, native species richness/diversity per plot	70% or greater cover by native herbaceous plant species	10	\$85	2	10	4	1	1	1	\$6,800											\$6,800
			Visual cover estimate using systematic placement of 1m2 quadrats with random start along permanent sub-transects. Spacing to include min. 20 plots. Analyses to include sample size Analyses, sample mean with 80% confidence interval for native and non-native species, native species richness/diversity per plot	Less than or equal to 20% cover by non-native herbaceous plant species. Plant species will include at least 5 species with 5% cover present in at least 10% of monitoring plots	2																				
7 Veg																									
			Stem count of native trees/shrubs; visual cover estimation of non-native herbaceous species. Density measured using systematic placement of 2m x 10m rectangular quadrats with random start located along center of permanent sub-transects, non-native herbaceous cover measured with nested placement of 1m2 quadrat at a spacing to allow a minimum of 20 plots. Analyses to include sample size analyses, sample mean with 80% confidence interval for native and non-native species, native species richness/diversity per plot	At least 1,200 living native stems per acre. At least 5 native shrub species present. At least 3 native tree species present. 30% or less cover by non-native herbaceous plant species	2																				

Note: Emergent Marsh, Riparian Forest Restoration Area, Riparian /Wetlands Forest Enhancement Area and Upland/Riparian Forest Invasive Management Area sampling are included \$6800.

Monitoring
6.3 Geomorphic and Structural Habitat Monitoring

6.3.1 Habitat Structures		Location	Monitoring Method	Performance standard	Monitoring Year	Cost per Hour	# of People	Hours Worked	# of Days	# of Weeks	# of Months	# of Years	Total Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
8 Veg	6.5.2 Riparian Forest Restoration Area	Riparian/Wetland Forest Restoration - Areas where existing weedy communities have been removed, extensive grading and clearing to take place and plant communities are fully restored			3																			
					4																			
					5																			
			Line intercept along permanent sub-transects. Spacing to include min. 10 transects. Analyses to include sample size Analyses, sample mean with 80% confidence interval for non-native species	55% or greater cover by native woody species.	7																			
			Line intercept along permanent sub-transects. Spacing to include min. 10 transects. Analyses to include sample size Analyses, sample mean with 80% confidence interval for non-native species	80% or greater cover by native woody species and 10% or greater cover by native herbaceous species. 20% or less cover by non-native vegetation	10																			
			Visual cover estimate using systematic placement of 1m2 quadrats with random start along permanent sub-transects. Spacing to include min. 20 plots. Analyses to include sample size Analyses, sample mean with 80% confidence interval for native and non-native species	30% or less cover by non-native herbaceous species.	2																			
9 Veg	6.5.3 Riparian/Wetland Forest Enhancement Area	Riparian/Wetland Forest Enhancement - Areas where treatments include extensive weed control in areas of existing forest or scrub-shrub communities; native species are preserved and supplemented with plantings where feasible.			3																			
					4																			
					5																			
			Line intercept along permanent sub-transects. Spacing to include min. 10 transects. Analyses to include sample size Analyses, sample mean with 80% confidence interval for non-native species	20% or less cover by non-native herbaceous and 10% or less of non-native woody species.	7																			
			Line intercept along permanent sub-transects. Spacing to include min. 10 transects. Analyses to include sample size Analyses, sample mean with 80% confidence interval for non-native species	20% or less cover by non-native herbaceous and woody species combined. 80% or greater native woody species and 10% or greater cover native herbaceous species by Year 10.	10																			

Monitoring
6.3 Geomorphic and Structural Habitat Monitoring

	6.3.1.Habitat Structures	Location	Monitoring Method	Performance standard	Monitoring Year	Cost per Hour	# of People	Hours Worked	# of Days	# of Weeks	# of Months	# of Years	Total Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
			Visual cover estimate using systematic placement of 1m ² quadrats with random start along permanent sub-transects. Spacing to include min. 20 plots. Analyses to include sample size Analyses, sample mean with 80% confidence interval for native and non-native species	30% or less cover by non-native herbaceous species		2																		
10 Veg	6.5.4 Upland/Riparian Forest Invasive Management Area	Upland/Riparian Forest Invasive Management Areas - Areas with established native canopy where non-native species will be controlled as only management action and no underplanting to take place.				3																		
						4																		
						5																		
			Visual cover estimation of native and non-native species using systematic placement of 10m circular plots with random start along permanent sub-transects and sampled with line intercept in each cardinal directions. Densiometer readings to occur at the end of each line. Analyses to include sample size Analyses, sample mean with 80% confidence interval for native and non-native species	Forest invasive management areas will have 20% or less cover by non-native herbaceous and 10% or less of non-native woody species.		7																		
			Visual cover estimation of native and non-native species using systematic placement of 10m circular plots with random start along permanent sub-transects and sampled with line intercept in each cardinal directions. Densiometer readings to occur at the end of each line. Analyses to include sample size Analyses, sample mean with 80% confidence interval for native and non-native species	Forest invasive management areas will have 20% or less cover by non-native herbaceous and woody species combined. Forest enhancement areas will have 80% or greater native woody species and 10% or greater cover native herbaceous species		10																		
	6.5.5 Statistical Analysis?																							
11			Daily mean stage height data from USGS Oregon City; elevation survey of crest of remnant pond outlet. Analyses to include graphical and quantitative calculation of river stage height vs. height of water control structure.	Remnant pond outlet will be overtopped by the Willamette River surface flows when stage height exceeds XX feet as measured by the USGS #14211720 Oregon City gauging station.		1	\$85	1	2	1	1	1	\$170	\$170										
	6.5 Hydrology and Hydraulics	Tributary, Off-Channel, Active Channel Margin				3	\$85	1	2	1	1	1	\$170			\$170								
						5	\$85	1	2	1	1	1	\$170					\$170						
						7	\$85	1	2	1	1	1	\$170							\$170				
						10	\$85	1	2	1	1	1	\$170										\$170	
			Daily mean stage height data from USGS Oregon City; elevation survey of crest of remnant pond outlet. Analyses to include graphical and quantitative calculation of river stage height vs. height of water control structure.	No less than XX acres of the project site will be inundated at such times when stage height on the Willamette River exceeds XX feet as measured by the USGS #14211720 Oregon City gauging station.		1	\$85	1	2	1	1	1	\$170	\$170										

Monitoring
6.3 Geomorphic and Structural Habitat Monitoring

	6.3.1.Habitat Structures	Location	Monitoring Method	Performance standard	Monitoring Year	Cost per Hour	# of People	Hours Worked	# of Days	# of Weeks	# of Months	# of Years	Total Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10				
12					3	\$85	1	2	1	1	1	1	\$170			\$170											
					5	\$85	1	2	1	1	1	1	\$170					\$170									
					7	\$85	1	2	1	1	1	1	\$170							\$170							
					10	\$85	1	2	1	1	1	1	\$170										\$170				
13	6.7 Water Quality	Off-Channel Habitat	Deploy temperature probes with data logger for continuous collection; deploy DO and conductivity sensor once a month at channel cross-sections during Years 1 and 2 and during summer months in Years 3-10	Document water quality over time and compare to appropriate reference conditions	1	85	1	4	1	1	12	1	\$4,080	\$4,080													
					2	85	1	4	1	1	12	1	\$4,080		\$4,080												
14		Off-Channel Habitat	Deploy temperature probes with data logger for continuous collection; deploy DO and conductivity sensor once a month at channel cross-sections during Years 1 and 2 and during summer months in Years 3-10	Document water quality over time and compare to appropriate reference conditions	3	\$85	1	4	1	1	3	1	\$1,020				\$1,020										
					4	\$85	1	4	1	1	3	1	\$1,020					\$1,020									
					5	\$85	1	4	1	1	3	1	\$1,020						\$1,020								
					6	\$85	1	4	1	1	3	1	\$1,020							\$1,020							
					7	\$85	1	4	1	1	3	1	\$1,020								\$1,020						
					8	\$85	1	4	1	1	3	1	\$1,020									\$1,020					
					9	\$85	1	4	1	1	3	1	\$1,020										\$1,020				
					10	\$85	1	4	1	1	3	1	\$1,020														\$1,020
15	6.6.1 Fish	Tributary, Off-Channel, Active Channel Margin	Snorkel surveys upstream of pond; beach seining of pond and downstream channels. Record species and size of fish observed. Measure sampled channel area to calculate fish density.	Document site use over time by native fish. Record size of salmonids and lamprey	1	\$85	2	6	4	1	4	1	\$16,320	\$16,320													
					3	\$85	2	6	4	1	4	1	\$16,320				\$16,320										
					5	\$85	2	6	4	1	4	1	\$16,320					\$16,320									
					7	\$85	2	6	4	1	4	1	\$16,320						\$16,320								
16	6.6.2 Birds	Active Channel Margin, Riparian, Upland	Conduct presence/absence bird surveys: point counts 3 times monthly in each habitat type during the breeding season. Determine relative abundance/diversity.	Document site use over time by birds. Compare bird assemblage to baseline and appropriate reference conditions.	1	\$85	1	6	3	1	3	1	\$4,590	\$4,590													
					3	\$85	1	6	3	1	3	1	\$4,590				\$4,590										
					5	\$85	1	6	3	1	3	1	\$4,590					\$4,590									
					10	\$85	1	6	3	1	3	1	\$4,590						\$4,590						\$4,590		

Appendix G-9: Adaptive Management Set Aside Funding

Appendix G-9
Adaptive Management Set Aside Funding

Adaptive Management Set Aside Funding is governed by Section 3.2 of the Portland Harbor NRDA Monitoring and Stewardship Framework dated May 15, 2014. The 25% habitat related construction cost is \$191,767.43. This funding will be set aside in year 1 prior to construction.

ADAPTIVE MANAGEMENT SET-ASIDE ESCROW AGREEMENT

This Adaptive Management Set-Aside Escrow Agreement ("Escrow Agreement") is made and entered into this _____ day of _____, 2018 by RINEARSON NATURAL AREA, LLC, an Oregon limited liability company ("RNA"); NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ("NOAA"), on behalf of the Department of the Commerce, and UNION BANK & TRUST ("Escrow Agent").

WHEREAS, RNA and the Trustee Council, which consists of NOAA, the UNITED STATES FISH AND WILDLIFE SERVICE ("USFWS"), on behalf of the Department of the Interior, the OREGON DEPARTMENT OF FISH AND WILDLIFE ("ODFW"), the CONFEDERATED TRIBES OF THE GRAND RONDE COMMUNITY OF OREGON, the CONFEDERATED TRIBES OF SILETZ INDIANS, the CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION, the CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION OF OREGON, and the NEZ PERCE TRIBE (collectively, "the Trustee Council") have developed a document titled Memorandum of Agreement between the Natural Resource Trustees and Rinearson Natural Area, LLC for Providing Technical Assistance Related to Habitat Restoration Projects toward Future Settlement of Natural Resource Damage Claims at the Portland Harbor CERCLA Site for providing technical assistance related to habitat restoration projects toward future potential settlement of natural resource damage claims at the Portland Harbor CERCLA Site (effective September 26, 2013), as amended from time to time (the "Memorandum").

WHEREAS, RNA has proposed a natural resource restoration project located on property identified as Tax Parcel IDs 76-22575, 00526354, 05019648, 05000035, 00526256, 0056265, 00526274, 00526924 and 00526363 in Clackamas County and the City of Gladstone, Oregon.

WHEREAS, in collaboration with the Trustee Council, RNA has developed the Rinearson Natural Area Habitat Development Plan ("the HDP").

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WHEREAS, the First Addendum to the MOA, dated _____, 2018 (“the MOA Addendum”), provides the Trustee Council’s approval of the HDP and RNA’s agreement to implement the Rinearson Natural Area Restoration Project (“the Restoration Project”) pursuant to the HDP.

WHEREAS, as required by the HDP, RNA must provide financial assurance to guarantee sufficient funds to conduct the adaptive management activities for the Restoration Project in accordance with the Construction Plans and Vegetation Plans attached to the HDP (“the Adaptive Management Requirements”), including Section 6.10 of the Adaptive Management Framework.

NOW, THEREFORE, in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned parties hereto agree as follows:

SECTION 1. Appointment of Escrow Agent.

RNA and NOAA hereby appoint Union Bank & Trust to serve as Escrow Agent under the Escrow Agreement on the terms and conditions set forth herein.

SECTION 2. Term.

The term of this Escrow Agreement is from the Effective Date until one of the following occurs: (a) a determination by NOAA pursuant to Section 3(f) that the Adaptive Management Requirements have been met, or (b) disbursement by the Escrow Agent of all remaining funds to NOAA or its designee pursuant to Section 3(e) following a determination by NOAA that RNA failed to meet the Adaptive

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Management Requirements. The term of this Escrow Agreement is hereafter referred to as the Performance Period. The Performance Period may be extended upon the written agreement of RNA, NOAA, and the Escrow Agent.

SECTION 3. The Escrow Fund, Release of Funds and Termination

(a) At the time of the Effective Date of this Agreement and at the time of execution of this agreement by RNA, RNA shall tender \$191,767.43 to the Escrow Agent for deposit in a separate bank account maintained by Escrow Agent for purposes of this Agreement (“Escrow Deposit”).

(b) All funds received by the Escrow Agent pursuant to the terms of these Escrow Instructions shall be held and disbursed in accordance with the terms and conditions of this Agreement. Escrow Agent shall invest the funds in an interest-bearing account held by Union Bank & Trust or at another federally-insured financial institution to be selected by RNA and to be identified in writing to NOAA. Funds may only be used by the Parties to meet Adaptive Management Requirements.

(c) All interest earned on such Escrow Deposit (together with the Escrow Deposit, the “Escrow Funds”) shall be available for purposes of this Escrow Agreement.

(d) Annual Disbursements. On an annual basis, the Escrow Agent shall disburse funds as NOAA shall direct, as follows:

(i) Commencing one year from the Effective Date of this Agreement and on an annual basis thereafter, NOAA will direct in writing that the Escrow Agent shall disburse an amount from

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the Escrow Account to RNA in payment for RNA's annual expenditures for the Adaptive Management Requirements. The disbursement shall be made to an account designated by RNA.

(ii) Thirty (30) days prior to the scheduled annual disbursement noted in Section 3(d)(i), RNA shall notify NOAA in writing of the amount of its expenditures for the prior year spent on Adaptive Management Requirements. Such notification shall itemize the costs and shall include the underlying documentation that supports the disbursement request.

(iii) If NOAA objects to an annual disbursement for any reason, NOAA will notify the Escrow Agent and RNA of their objections and the specifics of the deficiency in writing five (5) working days before the date of the scheduled annual disbursement. NOAA will provide RNA fifteen (15) working days to cure the deficiency.

(iv) If after fifteen (15) working days, RNA is not able to cure the deficiency in a manner satisfactory to NOAA, NOAA will direct the Escrow Agent in writing not to disburse any disputed funds to RNA unless and until NOAA subsequently advises the Escrow Agent in writing that the deficiency has been remedied. If RNA does cure the deficiency to the satisfaction of NOAA, NOAA will notify RNA and Escrow Agent that there are no further objections to the annual disbursement and Escrow Agent shall release the scheduled amount to the bank account designated by RNA as described in Section 3(d)(i).

(e) Failure to Meet Adaptive Management Requirements. Apart from the annual disbursements described in Section 3(d), if NOAA determines that RNA has failed to meet Adaptive Management Requirements, within thirty (30) days of determining there is such a failure, NOAA shall notify RNA in writing and shall specify the nature of the deficiency. RNA shall have fifteen

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(15) working days (unless NOAA's written notice specifies a longer period) from the date of NOAA's notice to satisfy the Adaptive Management Requirements required by NOAA. In the event RNA is able to cure the deficiency within the time frame allowed to the satisfaction of NOAA, NOAA shall send a second written notice of this determination to RNA. In the event RNA fails or is unable to cure the deficiency specified by NOAA, the following remedies, as appropriate, are available:

(1) If this Escrow Agreement has not become part of a consent decree, entered in United States District Court for the District of Oregon, resolving liability of one or more parties for natural resources damages, NOAA may notify the Escrow Agent of such failure, and the Escrow Agent shall release the remainder of the funds in the Escrow Account to a member of the Portland Harbor Trustee Council identified by NOAA, into an account established by that member of the Portland Harbor Trustee Council for the purpose of receiving the funds from the Escrow Agent. Following such disbursement of funds the Escrow Account shall be terminated; or

(2) At such time as this Escrow Agreement becomes part of a consent decree, entered in United States District Court for the District of Oregon, resolving liability of one or more parties for natural resource damages, NOAA may notify the Escrow Agent of such failure, and the Escrow Agent shall release the remainder of the funds in the Escrow Account to NOAA into an account to be determined by NOAA. Following such disbursement of funds, the Escrow Account shall be terminated.

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(f) Apart from the annual disbursements described in Section 3(d), if NOAA determines that all Adaptive Management Requirements have been fully satisfied, NOAA will notify RNA of this determination and will direct in writing that the Escrow Agent disburse any remaining funds from the Escrow Account to RNA, and the Escrow Account shall be terminated. NOAA will make such a determination within 120 days of RNA requesting the same.

(g) NOAA is the only party to this Escrow Agreement that is authorized to direct the Escrow Account regarding disbursement of funds from the Escrow Account. The Escrow Agent shall comply with all directives from NOAA regarding disbursement of funds from the Escrow Account.

SECTION 4. Miscellaneous

(a) Escrow Agent Performance. Escrow Agent shall only perform such duties as are expressly set forth in this in this Agreement. Escrow Agent may resign from its duties or obligations hereunder by giving written notice thirty (30) days in advance of such resignation to RNA and NOAA. Advanced written notice shall specify a date when such resignation shall take effect but no such resignation shall be effective until at least thirty (30) days following the date on which Escrow Agent provided notice. In the event that RNA and NOAA have not appointed a new escrow agent under this Agreement and provision has not been made to transfer the Escrow Account to such new escrow agent prior to the effective date of the resignation of Escrow Agent, then the Escrow Agent may appoint a second escrow agent which shall be a commercial bank organized under the laws of the United States and having a combined capital and surplus of at least \$50 million. In the event that Escrow Agent appoints a second escrow agent, the Escrow Agent shall ensure that the second escrow agent signs this Escrow

Escrow Agreement

Agreement prior to any transfer of Escrow Funds to the second escrow agent. This Agreement expressly and exclusively sets forth the duties of Escrow Agent with respect to any and all matters pertinent hereto, which shall be deemed purely ministerial in nature, and no implied duties or obligations shall be read into this Agreement against Escrow Agent. This Agreement constitutes the entire agreement between Escrow Agent and the other parties hereto in connection with the subject matter of this escrow, and no other agreement entered into between the parties, or any of them, shall be considered as adopted or binding, in whole or in part, upon Escrow Agent notwithstanding that any such other agreement may be referred to herein or deposited with Escrow Agent or Escrow Agent may have knowledge thereof, and Escrow Agent's rights and responsibilities shall be governed solely by this Agreement.

(b) Escrow Agent is not a trustee for any party for any purpose and acts hereunder as a depository only, and is not responsible or liable in any manner whatsoever for the sufficiency, correctness, genuineness or validity of the subject matter of this Agreement or any part thereof, or for the form of execution thereof, or for the identity or authority of any person executing or depositing such subject matter. Escrow Agent shall be under no duty to investigate or inquire as to the validity or accuracy of any document, agreement, instruction or request furnished to it hereunder believed by it to be genuine and Escrow Agent may rely and act upon, and shall not be liable for acting or not acting upon, any such document, agreement, instruction or request. Escrow Agent shall in no way be responsible for notifying, nor shall it be its duty to notify, any party hereto or any other party interested in this Agreement of any payment required or maturity occurring under this Agreement or under the terms of any instrument deposited herewith. The Escrow Agent shall incur no liability as a result of complying with directives

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from NOAA regarding disbursement of funds from the Escrow Account. Except as expressly provided herein, the Escrow Agent shall not be bound in any way by any other contract or agreement between the parties hereto, whether or not it has knowledge of any such contract or agreement or of its terms or conditions.

(d) Effective Date. The Effective Date of this Agreement is the date by which it is executed by RNA and the funds are deposited with the Escrow Agent.

(e) Notice. Any written notices required in this Agreement shall be effective for all purposes if hand delivered or sent by (a) certified or registered United States mail, postage prepaid, return receipt requested or (b) expedited prepaid delivery service, either commercial or United States Postal Service, with proof of attempted delivery to the addresses noted below:

If to NOAA:

National Oceanic and Atmospheric Administration
Restoration Center
National Marine Fisheries Service, Oregon Field Office NOAA
1201 NE Lloyd Blvd.
Portland, OR 97232-2182
Attn: Megan Callahan-Grant

If to RNA:

Rinearson Natural Area, LLC
1061 NE 9th Street
Suite 0105
Portland, Oregon 97232
Attn: Robert J. Proutt, Jr.

With a copy to:

Escrow Agreement

Falling Springs, LLC
6243 River Road, Suite 7
Richmond, Virginia 23229
Attn: Robert J. Proutt, Jr.

If to Union Bank & Trust:

NOAA, RNA, and/or Escrow Agent may change the contact to which notices or other written communications to them are to be given by giving notice as required under this section.

(f) Dispute Resolution and Jurisdiction. Disputes shall be resolved under this Escrow Agreement according to the following provision, as appropriate:

- 1) If this Escrow Agreement has not become part of a consent decree, entered in the United States District Court for the District of Oregon, resolving liability of one or more parties for natural resource damages, the following provisions apply: NOAA and RNA will attempt to resolve any disputes among themselves, informally. In any dispute, NOAA has sole discretion to determine whether RNA has satisfied the Adaptive Management Requirements during the Performance Period. With respect to any other disputes that cannot be resolved informally, any action, lawsuit or proceeding that may arise regarding this Escrow Agreement, unless otherwise specified in this Escrow Agreement, must be instituted in United States district court for the district of Oregon; or

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2) At such time as this Escrow Agreement becomes part of a consent decree, entered in United States District Court for the District of Oregon, resolving liability of one or more parties for natural resource damages, the following provisions apply: resolution of all disputes regarding the Escrow Agreement shall be according to the dispute resolution provisions of the consent decree. No action, lawsuit, or proceeding may be brought in any other court of forum to resolve disputes regarding the Escrow Agreement.

(g) Modifications to Adaptive Management Requirements. Both RNA and NOAA recognize that the Adaptive Management Requirements may be modified, revised, or amended during the Performance Period. Any such modifications to the Adaptive Management Requirements are hereby incorporated by reference into this Escrow Agreement.

(h) Conflicts with Consent Decree Provisions. At such time as this Escrow Agreement becomes part of a consent decree, entered in United States District Court for the District of Oregon, resolving liability of one or more parties for natural resource damages, if there are any conflicts between the provisions in this Escrow Agreement and the provisions in the consent decree, the provisions in the consent decree shall govern.

Escrow Agreement

IN WITNESS WHEREOF, this Agreement has been executed by the parties with the Effective Date as defined in the Escrow Agreement.

By: National Oceanic and Atmospheric Administration

Name: _____

Date: _____

By: Rinearson Natural Area, LLC

Name: _____

Date: _____

By: Xenith Bank

By: _____

Date: _____

Appendix G-10: Funding for Pacific Lamprey Monitoring

Appendix G-10
Funding for Pacific Lamprey Monitoring

The Pacific Lamprey monitoring will be conducted by the USFWS. USFWS formal monitoring reports that include a full account of methods and present results of data analysis will be prepared and submitted to the Trustee Council in Years 1-5, 10, 15 and 20. Analysis methods will follow those outlined in the USFWS report Evaluation of Portland Harbor Superfund Area Restoration: Larval Pacific Lamprey Rinearson Natural Area Restoration Site, and supplemental Sediment Analysis Plan (Silver et al 2016). Payments will be made in advance of each monitoring event to USFWS and the Designated Trustee Council member as directed by the Trustee Council.

Rinearson Natural Area Restoration Project Site
UPDATED Final Estimated Budget for Lamprey Monitoring Efforts - May 4, 2017

Cost Elements	MONITORING YEAR									TOTAL:
	Pre-implementation 2015	1 2018	2 2019	3 2020	4 2021	5 2022	10 2027	15 2032	20 2037	
Inflation Factor (3 percent, no investment return)	1.00	1.09	1.13	1.16	1.19	1.23	1.43	1.65	1.92	
RESTORATION PROJECT MONITORING										
Personnel	\$ 2,215	\$ 2,420	\$ 2,493	\$ 2,568	\$ 2,645	\$ 2,724	\$ 3,158	\$ 3,661	\$ 4,244	\$ 26,128
Non-personnel	\$ 387	\$ 423	\$ 436	\$ 449	\$ 462	\$ 476	\$ 552	\$ 640	\$ 742	\$ 4,565
Overhead	\$ 1,187	\$ 1,297	\$ 1,336	\$ 1,376	\$ 1,417	\$ 1,460	\$ 1,692	\$ 1,962	\$ 2,274	\$ 14,002
Organic content & Total Solids (\$50/sample)	\$ 900	\$ 983	\$ 1,013	\$ 1,043	\$ 1,075	\$ 1,107	\$ 1,283	\$ 1,488	\$ 1,724	\$ 10,617
Grain size (\$125/sample)	\$ 2,250	\$ 2,459	\$ 2,532	\$ 2,608	\$ 2,687	\$ 2,767	\$ 3,208	\$ 3,719	\$ 4,311	\$ 26,541
Lab-associated admin costs	\$ 473	\$ 516	\$ 532	\$ 548	\$ 564	\$ 581	\$ 674	\$ 781	\$ 905	\$ 5,574
Annual Data Compilation	\$ 7,405	\$ 8,092	\$ 8,334	\$ 8,584	\$ 8,842	\$ 9,107	\$ 10,558	\$ 12,239	\$ 14,189	\$ 87,350
Equipment Replacement Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,331	\$ -	\$ -	\$ -	\$ 14,331
Contingency	\$ 155	\$ 169	\$ 174	\$ 180	\$ 185	\$ 191	\$ 221	\$ 256	\$ 297	\$ 1,828
Contingency (20% of total analytical cost)	\$ 630	\$ 688	\$ 709	\$ 730	\$ 752	\$ 775	\$ 898	\$ 1,041	\$ 1,207	\$ 7,432
TOTAL	\$ 15,602	\$ 17,048	\$ 17,560	\$ 18,086	\$ 18,629	\$ 33,519	\$ 22,244	\$ 25,787	\$ 29,894	\$ 198,369
REFERENCE SITE MONITORING										
Personnel	\$ 1,571	\$ 1,717	\$ 1,768	\$ 1,821	\$ 1,876	\$ 1,932	\$ 2,240	\$ 2,597	\$ 3,010	\$ 18,532
Non-personnel	\$ 258	\$ 282	\$ 290	\$ 299	\$ 308	\$ 317	\$ 368	\$ 426	\$ 494	\$ 3,043
Overhead	\$ 832	\$ 909	\$ 936	\$ 965	\$ 993	\$ 1,023	\$ 1,186	\$ 1,375	\$ 1,594	\$ 9,814
Organic content & Total Solids (\$50/sample)	\$ 750	\$ 820	\$ 844	\$ 869	\$ 896	\$ 922	\$ 1,069	\$ 1,240	\$ 1,437	\$ 8,847
Grain size (\$125/sample)	\$ 1,875	\$ 2,049	\$ 2,110	\$ 2,174	\$ 2,239	\$ 2,306	\$ 2,673	\$ 3,099	\$ 3,593	\$ 22,118
Lab-associated admin costs	\$ 394	\$ 430	\$ 443	\$ 456	\$ 470	\$ 484	\$ 561	\$ 651	\$ 754	\$ 4,645
Contingency	\$ 104	\$ 114	\$ 117	\$ 121	\$ 124	\$ 128	\$ 148	\$ 172	\$ 199	\$ 1,227
Contingency (20% of total analytical cost)	\$ 525	\$ 574	\$ 591	\$ 609	\$ 627	\$ 646	\$ 749	\$ 868	\$ 1,006	\$ 6,193
TOTAL	\$ 6,309	\$ 6,894	\$ 7,101	\$ 7,314	\$ 7,533	\$ 7,759	\$ 8,995	\$ 10,427	\$ 12,088	\$ 74,419
TOTAL PROJECT SITE PLUS REFERENCE SITE	\$ 21,910	\$ 23,942	\$ 24,660	\$ 25,400	\$ 26,162	\$ 41,278	\$ 31,239	\$ 36,214	\$ 41,982	\$ 272,788

Notes:

1. This budget is based on the project design as described in Attachment A of the Trustees' letter to Cascade Environmental Group, "Forecast Settlement Credits Value for Rinearson Natural Area Restoration Site," as updated by "RNA - 1 - Rinearson Natural Area Restoration Plan.pdf." Changes to the project design may result in changes in to this budget.
2. The cost estimates provided in this budget reflect our best estimates of the costs of lamprey monitoring over the life of the plan (20 years). While the budget does account for inflation in estimating costs beyond year 0, it is not possible to predict with certainty whether and to what extent certain costs may change over time.
3. Costs included in the category "Equipment Replacement Costs" reflect the cost of major equipment required for carrying out lamprey monitoring activities that FWS is initially providing at no cost. Should any or all of the equipment require replacement during the term of lamprey monitoring on NRDA restoration sites, some or all of the replacement costs may be divided among all active restoration sites. The Trustees will make every attempt to identify options for sharing costs with other on-going, non-NRDA research activities. Project developers will not be charged for the costs of equipment replacement unless and until those costs are necessarily incurred.

Appendix G-11: Trustee Oversight Funding

Appendix G-11:

Trustee Oversight Funding

Trustee Oversight Funding

- a. The intent for this item is to provide funds for Trustee Council's continued involvement and oversight of the restoration project.
- b. Budget was provided by the Trustee Council and incorporated into the project plans.
- c. Annual funding will be paid each year by December 31st according to the attached budget schedule, except for years 15 and 20 which is to be paid prior to project close out. Payments will be made for the total Trustee Council oversight costs for that calendar year. Payments for Trustee Council oversight will be made by check furnished to the Department of Interior's Natural Resource Damage Assessment and Restoration (DOI NRDAR) account.
- d. The Trustee Council reserves the right to disperse Trustee Council oversight funding to individual Trustees in amounts different from those estimated in the budget above, not to exceed the total Trustee Council oversight budget in any year.

Portland Harbor NRDA Restoration
Rinearson Monitoring and Stewardship Trustee Council Oversight Budget (Revised 5/2016)

Year	Task	NOAA	State of Oregon	USFWS/DOI	Nez Perce	Umatilla	Siletz	Warm Springs	Grand Ronde	TOTAL
Pre-Implementation		\$0.00	\$0.00	\$0.00	\$456.38	\$432.34	\$420.50	\$366.84	\$2,390.20	\$4,066.26
	Lamprey: Cost Documentation/Data Review/Technical conference call									\$4,066.26
0		\$793.94	\$441.11	\$302.89	\$214.20	\$107.10	\$301.17	\$17.85	\$345.58	\$2,523.83
	Credit release process and tracking									\$2,523.83
1		\$3,588.59	\$1,376.28	\$2,480.01	\$2,707.86	\$2,217.07	\$2,666.29	\$1,259.22	\$4,917.60	\$21,212.93
	Participate in community outreach activities									\$686.14
	Review annual monitoring reports									\$2,996.55
	Site visits: 5 over 10 years									\$1,433.43
	Recommend and approve adaptive management actions as needed									\$3,761.21
	Revisit HEA using As-Builts									\$1,596.56
	Credit release process and tracking									\$1,353.76
	Lamprey: Coordination/Cost Documentation/Data review/Meeting/Site Visit									\$9,385.29
2		\$2,392.42	\$1,093.13	\$1,789.15	\$2,234.77	\$1,961.46	\$2,409.91	\$1,169.11	\$4,574.37	\$17,624.32
	Participate in community outreach activities									\$359.29
	Review annual monitoring reports									\$3,059.73
	Site visits: 5 over 10 years									\$1,147.52
	Recommend and approve adaptive management actions as needed									\$3,840.52
	Lamprey: Coordination/Cost Documentation/Data review/Meeting/Site Visit									\$9,217.26
3		\$2,865.93	\$1,351.23	\$1,988.27	\$1,206.14	\$1,178.54	\$1,462.72	\$442.44	\$4,587.90	\$15,083.16
	Participate in community outreach activities									\$366.87
	Review annual monitoring reports									\$3,124.25
	Site visits: 5 over 10 years									\$1,171.71
	Recommend and approve adaptive management actions as needed									\$3,921.50
	Credit release process and tracking									\$1,411.45
	Lamprey: Cost Documentation/Data review/Technical conference call									\$5,087.39
4		\$1,973.27	\$968.77	\$1,361.01	\$1,525.86	\$1,476.45	\$1,742.62	\$749.80	\$5,021.50	\$14,819.29
	Participate in community outreach activities									\$374.60
	Review annual monitoring reports									\$3,190.12
	Recommend and approve adaptive management actions as needed									\$4,004.18
	Lamprey: Cost Documentation/Data review/Technical conference call									\$7,250.38
5		\$4,210.77	\$1,898.95	\$2,589.64	\$4,777.28	\$3,722.06	\$3,808.05	\$2,427.74	\$6,164.05	\$29,598.54
	Participate in community outreach activities									\$382.50
	Review annual monitoring reports									\$3,257.39
	Site visits: 5 over 10 years									\$1,221.65
	Recommend and approve adaptive management actions as needed									\$4,088.61
	Review and development of conservation easements									\$3,150.01
	Confirm IMCS can be released									\$2,373.81
	Lamprey: Coordination/Cost Documentation/Data review/Meeting/Site Visit									\$15,124.56
6		\$2,507.76	\$339.35	\$341.61	\$303.78	\$243.03	\$382.20	\$40.50	\$330.52	\$4,488.74
	Participate in community outreach activities									\$261.12
	Review annual monitoring reports									\$1,167.68
	Recommend and approve adaptive management actions as needed									\$1,557.31
	Credit release process and tracking									\$1,502.62
7		\$2,100.75	\$409.45	\$780.11	\$186.11	\$124.08	\$215.81	\$20.68	\$137.31	\$3,974.29
	Participate in community outreach activities									\$398.80
	Review annual monitoring reports									\$1,588.82
	Recommend and approve adaptive management actions as needed									\$1,986.67

Year	Task	NOAA	State of Oregon	USFWS/DOI	Nez Perce	Umatilla	Siletz	Warm Springs	Grand Ronde	TOTAL
8		\$3,655.76	\$139.36	\$265.52	\$316.73	\$253.38	\$440.72	\$42.23	\$280.41	\$5,394.11
	Participate in community outreach activities									\$272.25
	Review annual monitoring reports									\$1,217.44
	Review and approve Initial Long Term Stewardship Framework									\$2,280.74
	Recommend and approve adaptive management actions as needed									\$1,623.68
9		\$2,190.27	\$94.87	\$180.75	\$194.04	\$129.36	\$225.01	\$21.56	\$143.16	\$3,179.02
	Participate in community outreach activities									\$277.99
	Review annual monitoring reports									\$1,243.11
	Recommend and approve adaptive management actions as needed									\$1,657.92
10		\$3,150.80	\$901.65	\$1,588.94	\$1,062.91	\$960.15	\$1,182.23	\$574.29	\$4,898.13	\$14,319.11
	Participate in community outreach activities									\$424.57
	Review annual monitoring reports									\$1,691.46
	Site visits: 5 over 10 years									\$1,355.99
	Recommend and approve adaptive management actions as needed									\$2,115.01
	Confirm IMCS can be released									\$1,394.48
	Lamprey: Cost Documentation/Data review/Technical conference call									\$7,337.61
11		\$2,909.70	\$277.75	\$190.72	\$134.88	\$134.88	\$189.64	\$22.48	\$217.60	\$4,077.65
	Credit release process and tracking									\$1,667.87
	Stewardship Oversight									\$2,409.78
12		\$2,337.57	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,337.57
	Stewardship Oversight									\$2,337.57
13		\$2,261.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,261.25
	Stewardship Oversight									\$2,261.25
14		\$2,180.68	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,180.68
	Stewardship Oversight									\$2,180.68
15		\$2,095.71	\$0.00	\$0.00	\$824.01	\$782.71	\$862.32	\$596.35	\$5,186.75	\$10,347.85
	Stewardship Oversight									\$2,095.71
	Lamprey: Cost Documentation/Data review/Technical conference call									\$8,252.14
16		\$2,006.22	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,006.22
	Stewardship Oversight									\$2,006.22
17		\$1,912.03	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,912.03
	Stewardship Oversight									\$1,912.03
18		\$1,813.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,813.00
	Stewardship Oversight									\$1,813.00
19		\$1,708.96	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,708.96
	Stewardship Oversight									\$1,708.96
20		\$1,454.31	\$0.00	\$0.00	\$926.71	\$880.26	\$969.80	\$670.68	\$5,566.62	\$10,468.37
	Stewardship Oversight									\$1,454.31
	Lamprey: Cost Documentation/Data review/Technical conference call									\$9,014.06
TOTALS		\$50,109.70	\$9,291.89	\$13,858.61	\$17,071.65	\$14,602.88	\$17,278.97	\$8,421.77	\$44,761.70	\$175,397.17

Notes:

1. This budget is based on the project design as described in Attachment A of the Trustees' Forecast Settlement Credits Value letter for the Rinearson Natural Area. Changes to the project design, level of effort required for oversight, etc., identified during the development of the restoration plan for the site, may result in changes in to this budget.
2. The costs associated with lamprey monitoring oversight assume that the Covered Project is the second of two restoration projects that will be implemented for Portland Harbor NRDA credit. For years in which multiple projects are conducting lamprey monitoring, costs savings associated with efficiencies gained from tasks being conducted for multiple projects simultaneously are factored into the presented values.

Appendix G-12: Letters of Credit

Appendix G-12a:

**IRREVOCABLE STANDBY LETTER OF CREDIT
(INTERIM MANAGEMENT AND CONTINGENCY AND LAMPREY MONITORING SECURITIES)**

DATE OF ISSUE: _____

LETTER OF CREDIT NO.: _____

ISSUER:

EXPIRY DATE: _____

AMOUNT: \$645,066.00

BENEFICIARY:

National Oceanic and Atmospheric Administration ("NOAA")
Street Address (for couriers):
National Oceanic and Atmospheric Administration
Restoration Center
National Marine Fisheries Service,
Oregon Field Office NOAA
1201 NE Lloyd Blvd.
Portland, OR 97232-2182
Attn: Megan Callahan-Grant

APPLICANT:

Rinearson Natural Area, LLC
Street Address:
Rinearson Natural Area, LLC
c/o Falling Springs, LLC
6243 River Road, Suite 7
Richmond, VA 23229
Attn: Robert J. Proutt, Jr.

Dear Sir or Madam:

Issuer hereby establishes this Irrevocable Letter of Credit No. _____ in favor of the National Oceanic and Atmospheric Administration ("NOAA") ("Beneficiary") on behalf of The Portland Harbor Natural Resource Trustee Council ("Trustee Council") at the request and for the account of Rinearson Natural Area, LLC, 6243 River Road, Suite 7, Richmond VA 23229 ("Applicant") up to the maximum amount of Six Hundred Forty-Five Thousand and Sixty-Six U.S. dollars (\$645,066.00) ("Maximum Amount"), available upon presentation of:

1. Beneficiary's sight draft, bearing reference to this letter of credit No. _____, together with
2. Beneficiary's signed statement declaring that the amount of the sight draft is payable pursuant to regulations issued under the authority of NOAA.

US \$645,065.00 is based upon financial assurance requirements for interim management and contingency security as well as site-specific lamprey monitoring as detailed in the Rinearson Natural Area Habitat Development Plan for the Rinearson Natural Area Restoration Project (the "Project"). This amount has been mutually agreed upon by the Applicant, and the Trustee Council, of which NOAA is acting as representative member for purposes of this letter. This amount helps ensure that funding for interim management and monitoring, including site specific lamprey monitoring, of the Project during the performance period is available.

This Irrevocable Letter of Credit is effective as of _____ and will expire one year from the date of issuance (the "Initial Expiration Date"), but such expiration date will be automatically extended for a period of one year from the Initial Expiration Date and on each successive expiration date, unless, at least 120 days before the current expiration date, Issuer notifies NOAA at the address identified above, with a copy of such notice sent to Applicant at the address identified above by certified mail or receipted courier that Issuer elects not to extend the Letter of Credit beyond the current expiration date. In the event Beneficiary is so notified, any unused portion of the credit will be available upon presentation of Beneficiary's sight draft for 120 days after the date of receipt by NOAA as shown on the signed return receipt or until the expiration date of this letter of credit, whichever is later.

Whenever this letter of credit is drawn on, under, and in compliance with the terms of this credit, Issuer will duly honor such draft upon presentation to us, and Issuer will pay to an account identified by NOAA to be used solely for interim management plus contingencies and site-specific lamprey monitoring.

All notifications, requests, and demands required or permitted hereunder shall be given in writing, identify the site, and provide a contact person (and contact information).

Multiple and partial draws on this letter of credit are expressly permitted, up to an aggregate amount not to exceed the Maximum Amount. Whenever this letter of credit is drawn on, under, and in compliance with the terms hereof, Issuer shall duly honor such draft upon presentation to Issuer, and Issuer shall deposit the amount of the draft in immediately available funds directly into such account or accounts as may be specified in accordance with Beneficiary's instructions.

All banking and other charges under this letter of credit are for the account of the Applicant.

I hereby certify that I am authorized to execute this letter of credit on behalf of _____.

This letter of credit is subject to the Uniform Customs and Practice for Documentary Credits Publication 600, published by the International Chamber of Commerce.

Sincerely,

ISSUER:

**Exhibit A - Form of Sight Draft
[NOAA LETTERHEAD]**

SIGHT DRAFT

TO: **[Insert name of issuing institution]**
 [Insert name and title of contact person(s)]
 [Insert address]

RE: Letter of Credit No. **[insert number]**

DATE: **[Insert date on which draw is made]**

TIME: **[Insert time of day at which draw is made]**

This draft is drawn under your Irrevocable Standby Letter of Credit No. **[insert number]**. I certify that the amount of the draft is payable pursuant to that certain **[insert as appropriate: “Consent Decree,” “ [insert name of restoration project habitat development plan] Guaranteed Work”]**, dated **[insert date]**, **[insert as appropriate: civil action number for consent decrees]**, between the Portland Harbor Natural Resource Trustee Council, which is made up of the United States, represented by the National Oceanic and Atmospheric Administration and the Department of the Interior, the State of Oregon, the Nez Perce Tribe, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians of Oregon, the Confederated Tribes of the Umatilla Indian Reservation, and the Confederated Tribes of the Warm Springs Reservation of Oregon and **[insert settling parties or project proponent]**, entered into by the parties thereto in accordance with the authority of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675, relating to the Portland Harbor Natural Resource Damage Assessment.” Pay to the order of the United States Department of Commerce, in immediately available funds, the amount of \$**[insert dollar amount of draw]** or, if no amount certain is specified, the total balance remaining available under such Irrevocable Standby Letter of Credit.

Pay such amount as is specified in the immediately preceding paragraph by **[insert payment instructions as appropriate, such as: “Fedwire EFT, referencing Site/Spill ID Number [insert number] [and DJ Number [insert number]]**]. The Fedwire EFT payment must be sent as follows:

INSERT PAYMENT INSTRUCTIONS

The total amount paid shall be deposited by the National Oceanic and Atmospheric Administration in the Portland Harbor Natural Resource Damage Assessment Account to be retained and used to conduct or finance restoration actions at or in connection with, **[insert as appropriate: “Consent Decree,” “ [insert name of restoration project habitat development plan] Guaranteed Work”]**.

October 2016

This Sight Draft has been duly executed by the undersigned, an authorized representative or agent of the National Oceanic and Atmospheric Administration, whose signature hereupon constitutes an endorsement.

By [signature]: _____
Printed name: _____
Title: _____
Address: _____
Contact information: _____

Appendix G-12b:

**IRREVOCABLE STANDBY LETTER OF CREDIT
(SITE-SPECIFIC LAMPREY MONITORING, YEARS 15, 20 SECURITY)**

DATE OF ISSUE: _____

LETTER OF CREDIT NO.: _____

ISSUER:

EXPIRY DATE: _____

AMOUNT: \$78,196.00

BENEFICIARY:
National Oceanic and Atmospheric Administration ("NOAA")

APPLICANT:
Rinearson Natural Area, LLC

Street Address (for couriers):
National Oceanic and Atmospheric Administration
Restoration Center
National Marine Fisheries Service,
Oregon Field Office NOAA
1201 NE Lloyd Blvd.
Portland, OR 97232-2182
Attn: Megan Callahan-Grant

Street Address:
Rinearson Natural Area, LLC
c/o Falling Springs
6243 River Road, Suite 7
Richmond, VA 23229
Attn: Robert J. Proutt, Jr.

Dear Sir or Madam:

Issuer hereby establishes this Irrevocable Letter of Credit No. _____ in favor of the National Oceanic and Atmospheric Administration ("NOAA") ("Beneficiary") on behalf of The Portland Harbor Natural Resource Trustee Council ("Trustee Council") at the request and for the account of Rinearson Natural Area, LLC, 6243 River Road, Suite 7, Richmond VA 23229 ("Applicant") up to the maximum amount of Seventy-Eight Thousand One Hundred Ninety-Six U.S. dollars (\$78,196.00) ("Maximum Amount"), available upon presentation of:

1. Beneficiary's sight draft, bearing reference to this letter of credit No. _____; and
2. Beneficiary's signed statement declaring that the amount of the sight draft is payable pursuant to regulations issued under the authority of NOAA.

US \$78,196.00 is based upon financial assurance requirements detailed in the Habitat Development Plan for the Rinearson Natural Area Restoration Project (the "Project"). This amount has been mutually agreed upon by the Applicant, Rinearson Natural Area LLC, and the Trustee Council, of which NOAA is acting as representative member for purposes of this letter. This amount helps ensure that funding for site-specific lamprey monitoring during Years 15 and 20 of the 20 year monitoring plan is available.

This Irrevocable Letter of Credit is effective as of _____ and will expire one year from the date of issuance (the "Initial Expiration Date"), but such expiration date will be automatically extended for a period of one year from the Initial Expiration Date and on each successive expiration date, unless, at least 120 days before the current expiration date, Issuer notifies NOAA at the address identified above, with a copy of such notice sent to Rinearson Natural Area, LLC at the address identified above by certified mail or receipted courier that Issuer elects not to extend the Letter of Credit beyond the current expiration date. In the event Beneficiary is so notified, any unused portion of the credit will be available upon presentation of Beneficiary's sight draft for 120 days after the date of receipt by NOAA as shown on the signed return receipt or until the expiration date of this letter of credit, whichever is later.

Whenever this letter of credit is drawn on, under, and in compliance with the terms of this credit, Issuer will duly honor such draft upon presentation to Issuer, and Issuer will pay to an account to be identified by Beneficiary, to be used solely for Years 15 and 20 site-specific lamprey monitoring events.

All notifications, requests, and demands required or permitted hereunder shall be given in writing, identify

the site, and provide a contact person (and contact information).

Multiple and partial draws on this letter of credit are expressly permitted, up to an aggregate amount not to exceed the Maximum Amount. Whenever this letter of credit is drawn on, under, and in compliance with the terms hereof, Issuer shall duly honor such draft upon presentation to Issuer, and Issuer shall deposit the amount of the draft in immediately available funds directly into such account or accounts as may be specified in accordance with Beneficiary's instructions.

All banking and other charges under this letter of credit are for the account of the Applicant.

I hereby certify that I am authorized to execute this letter of credit on behalf of _____.

This letter of credit is subject to the Uniform Customs and Practice for Documentary Credits Publication 600, published by the International Chamber of Commerce.

Sincerely,

ISSUER:

**Exhibit A - Form of Sight Draft
[NOAA LETTERHEAD]**

SIGHT DRAFT

TO: **[Insert name of issuing institution]**
 [Insert name and title of contact person(s)]
 [Insert address]

RE: Letter of Credit No. **[insert number]**

DATE: **[Insert date on which draw is made]**

TIME: **[Insert time of day at which draw is made]**

This draft is drawn under your Irrevocable Standby Letter of Credit No. **[insert number]**. I certify that the amount of the draft is payable pursuant to that certain **[insert as appropriate: “Consent Decree,” “ [insert name of restoration project habitat development plan] Guaranteed Work”]**, dated **[insert date]**, **[insert as appropriate: civil action number for consent decrees]**, between the Portland Harbor Natural Resource Trustee Council, which is made up of the United States, represented by the National Oceanic and Atmospheric Administration and the Department of the Interior, the State of Oregon, the Nez Perce Tribe, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians of Oregon, the Confederated Tribes of the Umatilla Indian Reservation, and the Confederated Tribes of the Warm Springs Reservation of Oregon and **[insert settling parties or project proponent]**, entered into by the parties thereto in accordance with the authority of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675, relating to the Portland Harbor Natural Resource Damage Assessment.” Pay to the order of the United States Department of Commerce, in immediately available funds, the amount of \$**[insert dollar amount of draw]** or, if no amount certain is specified, the total balance remaining available under such Irrevocable Standby Letter of Credit.

Pay such amount as is specified in the immediately preceding paragraph by **[insert payment instructions as appropriate, such as: “Fedwire EFT, referencing Site/Spill ID Number [insert number] [and DJ Number [insert number]]**]. The Fedwire EFT payment must be sent as follows:

INSERT PAYMENT INSTRUCTIONS

The total amount paid shall be deposited by the National Oceanic and Atmospheric Administration in the Portland Harbor Natural Resource Damage Assessment Account to be retained and used to conduct or finance restoration actions at or in connection with, **[insert as appropriate: “Consent Decree,” “ [insert name of restoration project habitat development plan] Guaranteed Work”]**.

October 2016

This Sight Draft has been duly executed by the undersigned, an authorized representative or agent of the National Oceanic and Atmospheric Administration, whose signature hereupon constitutes an endorsement.

By [signature]: _____
Printed name: _____
Title: _____
Address: _____
Contact information: _____

Appendix G-12c:

**IRREVOCABLE STANDBY LETTER OF CREDIT
(OUTSTANDING CONSTRUCTION AND PLANTING)**

DATE OF ISSUE: _____

LETTER OF CREDIT NO.: _____

ISSUER:

EXPIRY DATE: _____

AMOUNT: \$462,043.42

BENEFICIARY:
National Oceanic and Atmospheric Administration ("NOAA")

APPLICANT:
Rinearson Natural Area, LLC

Street Address (for couriers):
National Oceanic and Atmospheric Administration
Restoration Center
National Marine Fisheries Service,
Oregon Field Office NOAA
1201 NE Lloyd Blvd.
Portland, OR 97232-2182
Attn: Megan Callahan-Grant

Street Address:
Rinearson Natural Area, LLC
c/o Falling Springs
6243 River Road, Suite 7
Richmond, VA 23229
Attn: Robert J. Proutt, Jr.

Dear Sir or Madam:

Issuer hereby establishes this Irrevocable Letter of Credit No. _____ in favor of the National Oceanic and Atmospheric Administration ("NOAA") ("Beneficiary") on behalf of The Portland Harbor Natural Resource Trustee Council ("Trustee Council") at the request and for the account of Rinearson Natural Area, LLC, 6243 River Road, Suite 7, Richmond VA 23229 ("Applicant") up to the maximum amount of Four Hundred Sixty-Two Thousand Forty-Three and 42/100 U.S. dollars (\$462,043.42) ("Maximum Amount"), available upon presentation of:

1. Beneficiary's sight draft, bearing reference to this letter of credit No. _____; and
2. Beneficiary's signed statement declaring that the amount of the sight draft is payable pursuant to regulations issued under the authority of NOAA.

US \$462,043.42 is based upon financial assurance requirements for outstanding construction and completion of planting detailed in the Rinearson Natural Area Habitat Development Plan (the "Plan") for the Rinearson Natural Area Restoration Project (the "Project"). This amount has been mutually agreed upon by Applicant, and the Trustee Council, of which NOAA is acting as representative member for purposes of this letter. This amount helps ensure that funding for construction tasks and planting/seeding activities, outstanding as of the date of the final Plan, is available.

This Irrevocable Letter of Credit is effective as of _____ and will expire one year from the date of issuance (the "Initial Expiration Date"), but such expiration date will be automatically extended for a period of one year from the Initial Expiration Date and on each successive expiration date, unless, at least 120 days before the current expiration date, Issuer notifies NOAA at the address identified above, with a copy of such notice sent to the Applicant at the address identified above by certified mail or receipted courier that we elect not to extend the Letter of Credit beyond the current expiration date. In the event Beneficiary is so notified, any unused portion of the credit will be available upon presentation of Beneficiary's sight draft for 120 days after the date of receipt by NOAA as shown on the signed return receipt or until the expiration date of this letter of credit, whichever is later.

Whenever this letter of credit is drawn on, under, and in compliance with the terms of this credit, Issuer will duly honor such draft upon presentation to us, and Issuer will pay to an account to be identified by NOAA, to be used solely for outstanding construction and completion of planting.

All notifications, requests, and demands required or permitted hereunder shall be given in writing, identify the site, and provide a contact person (and contact information).

Multiple and partial draws on this letter of credit are expressly permitted, up to an aggregate amount not to exceed the Maximum Amount. Whenever this letter of credit is drawn on, under, and in compliance with the terms hereof, Issuer shall duly honor such draft upon presentation to Issuer, and Issuer shall deposit the amount of the draft in immediately available funds directly into such account or accounts as may be specified in accordance with Beneficiary's instructions.

All banking and other charges under this letter of credit are for the account of the Applicant.

I hereby certify that I am authorized to execute this letter of credit on behalf of _____.

This letter of credit is subject to the Uniform Customs and Practice for Documentary Credits Publication 600, published by the International Chamber of Commerce.

Sincerely,

ISSUER:

**Exhibit A - Form of Sight Draft
[NOAA LETTERHEAD]**

SIGHT DRAFT

TO: **[Insert name of issuing institution]**
 [Insert name and title of contact person(s)]
 [Insert address]

RE: Letter of Credit No. **[insert number]**

DATE: **[Insert date on which draw is made]**

TIME: **[Insert time of day at which draw is made]**

This draft is drawn under your Irrevocable Standby Letter of Credit No. **[insert number]**. I certify that the amount of the draft is payable pursuant to that certain **[insert as appropriate: “Consent Decree,” “ [insert name of restoration project habitat development plan] Guaranteed Work”]**, dated **[insert date]**, **[insert as appropriate: civil action number for consent decrees]**, between the Portland Harbor Natural Resource Trustee Council, which is made up of the United States, represented by the National Oceanic and Atmospheric Administration and the Department of the Interior, the State of Oregon, the Nez Perce Tribe, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians of Oregon, the Confederated Tribes of the Umatilla Indian Reservation, and the Confederated Tribes of the Warm Springs Reservation of Oregon and **[insert settling parties or project proponent]**, entered into by the parties thereto in accordance with the authority of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675, relating to the Portland Harbor Natural Resource Damage Assessment.” Pay to the order of the United States Department of Commerce, in immediately available funds, the amount of \$**[insert dollar amount of draw]** or, if no amount certain is specified, the total balance remaining available under such Irrevocable Standby Letter of Credit.

Pay such amount as is specified in the immediately preceding paragraph by **[insert payment instructions as appropriate, such as: “Fedwire EFT, referencing Site/Spill ID Number [insert number] [and DJ Number [insert number]]**]. The Fedwire EFT payment must be sent as follows:

INSERT PAYMENT INSTRUCTIONS

The total amount paid shall be deposited by the National Oceanic and Atmospheric Administration in the Portland Harbor Natural Resource Damage Assessment Account to be retained and used to conduct or finance restoration actions at or in connection with, **[insert as appropriate: “Consent Decree,” “ [insert name of restoration project habitat development plan] Guaranteed Work”]**.

October 2016

This Sight Draft has been duly executed by the undersigned, an authorized representative or agent of the National Oceanic and Atmospheric Administration, whose signature hereupon constitutes an endorsement.

By [signature]: _____
Printed name: _____
Title: _____
Address: _____
Contact information: _____

Appendix G-13: Jurisdictional Authority for Long-Term Protection and Use

Appendix G-13 Jurisdictional Authority for Long-Term Protection and Use

The Rinearson Natural Area Restoration Project (Project) is an aquatic, wetland, floodplain, and riparian restoration and enhancement project being developed as part of a regional restoration plan for the lower Willamette River to provide ecological services to compensate for environmental injuries incurred as a result of industrial contamination of the Portland Harbor.

The restoration and enhancement will be accomplished via earthwork and native vegetation restoration and management. Following construction, the site will receive 10 years of effectiveness monitoring and potential adaptive management activities, during which time site conditions will be documented and reported to the Trustee Council. Long term, it is imperative that the Project, as developed pursuant to the Project's Habitat Development Plan, be protected and managed in perpetuity. Section 1.1.1 of the Project's Habitat Development Plan discusses the site's existing uses and zoning overlays. This Appendix provides more detail on the site's zoning classifications and overlays in order to supplement the discussion provided in Section 1.1.1.

Rinearson Natural Area

Jurisdictional Authority for Long-Term Protection and Use

Jurisdictional Authorities

The majority of the Rinearson Natural Area Restoration Project (based on the tax records, approximately 27.5 acres) lies within the City of Gladstone (Figure A and Figure B). Near and long-term protections for the site will exist under ordinances related to Open Space Zoning (OS; Chapter 17.26) as defined in the City of Gladstone's Comprehensive Plan, and under the Habitat Conservation Area District (HCA; GMC Chapter 17.25), Water Quality Resource Area (WQ; Chapter 17.27), Greenway Conditional Use District (GW; Chapter 17.28), and the Flood Management Districts (FM; GMC Chapter 17.29) within the Gladstone Municipal Code (GMC; City of Gladstone 2014).

A small portion of the site is within the jurisdiction of Clackamas County (based on the tax records, approximately 4.65 acres), and would be subject to rules and regulations very similar to those in place in the City of Gladstone.

The various site protection mechanisms and zoning uses, with the relevant overlay districts, are described below. The overlay districts at Rinearson Natural Area are compatible with the proposed uses and long term management goals of the Restoration Plan.

From Gladstone Municipal Code- Title 17 Zoning and Development

The City of Gladstone's regulations for use within the above districts are included in Title 17: Zoning and Development, Division II: Zoning Districts. The City reviews activities with the potential to impact natural resources in these districts. Vegetated corridors, or development setback areas, are applied to wetlands and other waterbodies to protect their value and functions.

17.25 HCAD – Habitat Conservation Area District

Habitat conservation areas (HCAs) are based on Title 3 Lands and Title 13 Resource Inventory protection overlays developed by Metro through the Urban Growth Management Functional Plan (Metro 2012). Title 3 Lands delineate stream corridor and floodplain areas for the purpose of limiting development to protect water quality, wildlife habitat, and public safety (Metro Code Sections 3.07.310 – 3.07.360); Title 13 Resource Inventory is based on a Metro-developed model and combines regionally significant riparian and upland wildlife habitat, habitats of concern, and impact areas for mapping riparian functions and wildlife values (Metro Code Sections 3.07.1310 – 3.07.1370).

Development within an HCA is subject to review by the City and/or requires a Construction Management Plan; 17.25.040, 17.25.050, 17.25.60, and 17.25.100 outline the allowed and prohibited uses, development review requirements, and approval requirements.

17.26 OS- Open Space District

The purpose of an Open Space district is to implement the Comprehensive Plan and to provide and preserve open space areas for use and enjoyment of the public. Open space districts are also applied for areas that offer protections for air, water and land resources, and for providing habitat for fish and wildlife.

17.26.020 Applicability In addition to other specific areas which may be so zoned the City Council, this district shall apply to all publicly owned park lands.

17.26.040 Conditional uses allowed.

In an OS zoning district, the following uses and their accessory uses are allowed subject to GMC Chapter 17.70 (conditional uses):

- (1) Boat ramp.
- (2) Swimming facility.
- (3) Community garden.
- (4) Ball field.
- (5) Tennis court.
- (6) Other similar recreational uses.
- (7) Public utility facilities within a Habitat Conservation Area District.

17.26.050 Special standards.

Developments in the open space district shall comply with the following special standards:

- (1) Compatibility. Open space uses shall be compatible with adjacent land uses.

(2) Preservation of Natural, Scenic and Historic Features. Trees, shrubs, wildlife and other significant natural, scenic or historic features shall be preserved and protected wherever feasible and/or practicable. Where conflicting uses are later identified, which would detrimentally impact these resources, these resources shall be preserved and protected unless it can be clearly shown after analysis of the economic, social and environmental energy consequences of the conflicting uses that it is not feasible or practicable to retain these resources in their current state. Within the greenway portion of the open space district, significant trees, shrubs, wildlife habitats and other natural, scenic or historic features shall be preserved.

(3) Access and Parking. Vehicular traffic generated by open space use shall be provided with adequate access and parking facilities.

(4) Trash Receptacles. Picnic grounds shall be equipped with trash receptacles.

(5) Maintenance. Open space districts shall be maintained by the city if publicly owned, by the owner(s) if privately owned.

(6) Limitations:

(a) Bikeways and/or trails shall not cross private property without first securing an easement from the property owner;

(b) Substantial soil removal or fill (grading) shall be subject to approval by the City Council.

Chapter 17.27 WQ – Water Quality Resource Area District

WQRAs are based on Title 3 lands mapped by the Metro, similarly to HCA lands. Water quality resource areas means vegetated corridors and the adjacent protected water features as established by this Chapter 17.27. Title 3 Lands delineate stream corridor and floodplain areas for the purpose of limiting development to protect water quality, wildlife habitat, and public safety.

17.27.010 Purpose.

(1) The purpose of the Water Quality Resource Area (WQ) District is to implement the Comprehensive Plan, to protect and improve water quality, to support beneficial water uses, and to protect the functions and values of existing and newly established water quality resource areas that provide a vegetated corridor to separate protected water features from development. The vegetated corridor assists in many functions, including but not limited to, the following:

- (a) Maintaining or reducing stream temperatures;
- (b) Maintaining natural stream corridors;
- (c) Reducing potential sediment, nutrient and pollutant loading into water;
- (d) Providing filtration, infiltration and natural water purification; and
- (e) Stabilizing slopes to prevent landslides contributing to sedimentation of water features.

17.27.040 Uses within the WQ District.(1) Uses Allowed Outright.

- (a) Stream, wetland, riparian and upland enhancement or restoration projects;
- (b) Placement of structures that do not require a grading or building permit;
- (c) Maintenance of existing structures, roadways, driveways, utility facilities, accessory uses and other development;
- (d) Planting of vegetation listed on the Gladstone Native Plant List;
- (e) Removal of vegetation listed on the Gladstone Prohibited Plant List;
- (f) Removal of dead or diseased trees or trees that pose an imminent hazard to persons or property;
- (g) Removal of vegetation, except trees of 1.5 inches or greater caliper, provided such removal shall not result in more than 10 percent of the area of the vegetated corridor being devoid of vegetation.

(2) Uses Allowed Under Prescribed Conditions.

- (a) Repair, replacement or improvement of utility facilities where the disturbed portion of the water quality resource area is restored and vegetation is replaced with vegetation identified on the Gladstone Native Plant List;
- (b) Additions, alterations, rehabilitation, or replacement of existing structures, roadways, driveways, accessory uses and other development that do not increase existing structural footprints in the water quality resource area where the disturbed portion of the water quality resource area is restored and vegetation is replaced with vegetation identified on the Gladstone Native Plant List;
- (c) Measures to remove or abate nuisances, or any other violation of statute, administrative rule or ordinance, where such measures are required by government order and the disturbed portion of the water quality resource area is restored and vegetation is replaced with vegetation identified on the Gladstone Native Plant List.

(3) Uses Subject to Review. The following uses are allowed subject to compliance with the application requirements and development standards of GMC Sections 17.27.042 and 17.27.045:

- (a) Any use allowed in the underlying zoning district, other than those listed in GMC Subsections 17.27.040 (1) and (2);
- (b) Roads to provide access to protected water features or necessary ingress and egress across water quality resource areas;
- (c) New public or private utility facility construction;
- (d) Walkways and bike paths subject to GMC Subsection 17.27.045(1)(f);
- (e) New stormwater pretreatment facilities, subject to GMC Subsection 17.27.045(1)(g);

(f) Widening an existing road within a water quality resource area;

(g) Additions, alternations, rehabilitation or replacement of existing structures, driveways, accessory uses and other development that increase the structural footprint within the water quality resource area.

(4) Prohibited Uses.

(a) Any new development, other than that listed in GMC Subsections 17.27.040(1), (2) and (3);

(b) Uncontained areas of hazardous materials as defined by the Department of Environmental Quality.

17.27.070 Variances.

(1) In conjunction with an application filed pursuant to GMC Section 17.27.030, a variance to one or more of the standards of this chapter may be requested.

(2) Metro shall be notified of the city's receiving an application to vary the requirements of this chapter and within seven days of a decision on the variance.

(3) There are three distinct types of variances that may be available.

(a) Lot of Record Variance. Development may occur on lots of record located completely within the WQ district that are created, or that the city has approved for creation, on or before the effective date of this chapter. Development shall not disturb more than 5,000 square feet of the vegetated corridor required by Table 1.

(b) Hardship Variance. A hardship variance may be approved if the applicant demonstrates that the variance is the minimum necessary to allow the proposed use.

(A) The city may impose such conditions as are deemed necessary to limit any adverse impacts that may result from granting a hardship variance. At a minimum, the variance shall be subject to the following conditions:

(i) The minimum width of the vegetated corridor shall be 15 feet on each side of a primary protected water feature; and

(ii) No more than 25 percent of the length of the water quality resource area for a primary protected water feature within a development site shall be less than 30 feet in width on each side of the water feature.

(iii) The minimum width of the vegetated corridor shall be ten feet on each side of a secondary protected water feature.

(c) **Buildable Lot Variance.** A buildable lot variance may be approved for a lot that is partially inside the water quality resource area. Development of such lots shall not disturb more than 5,000 square feet of the vegetated corridor required by Table 1. The city may impose such conditions as are deemed necessary to limit any adverse impacts that may result from granting a buildable lot variance. The applicant must demonstrate the following:

(A) The proposed use cannot meet the standards in subsection (3)(b)(A)(i) through (iii) of this section;

(B) No other application of this chapter could result in permission for an economically viable use of the subject property. Evidence to meet this criterion shall include a list of uses allowed on the subject property;

(C) The variance is the minimum necessary to allow the proposed use; and

(D) The variance will comply with GMC Subsection 17.27.042(1)(h).

Chapter 17.28 GW – Greenway Conditional Use District

The Greenway Conditional Use District applies to lands adjacent to the Willamette River pursuant to the City's comprehensive plan. The purpose of the District is to protect and conserve the natural, cultural, and historical qualities of the areas. Development permits may be required for intensification, change, or development of uses (GMC 17.28.040). Permitted uses must protect fish and wildlife habitat, vegetation, and scenic resources; development must include a setback line sufficient to protect river resources.

17.28.010 Purpose.

The purpose of the greenway conditional use district is to implement the comprehensive plan and to provide compatibility between intensification, change of use, or development therein and the Willamette River Greenway Program.

17.28.050 Special standards.

Before intensification, change of use or development may be allowed in an **area** either committed to an urban use or an **area** not committed to an urban use, affirmative findings must be made showing compliance with the following standards:

- (1) Fish and Wildlife Habitat. Significant fish and wildlife habitat shall be protected.
- (2) Scenic Qualities and Views. Identified scenic qualities and viewpoints shall be preserved.

(3) Protection and Safety. A development shall provide for the maintenance of public safety and protection of public and private property, especially from vandalism and trespass to the maximum extent practicable.

(4) Vegetative Fringe. The natural vegetative fringe along the river shall be enhanced and protected to the maximum extent practicable.

(5) Development Away from the River. Developments shall be directed away from the river to the greatest possible degree; provided, however, lands committed to urban uses within the greenway shall be permitted to continue urban uses, including port, industrial, commercial and residential uses, uses pertaining to navigational requirement, water and land access needs and related facilities.

(6) Greenway Setback. A setback line shall be established on a case-by-case basis for any development, intensification, or change of use in the greenway. This setback line shall be sufficient to protect, maintain, preserve, enhance the natural, scenic, historic and recreational qualities of the greenway.

Chapter 17.29 FM – Flood Management Area District

FMA's are based on flood hazard areas identified by the regional flood insurance study. The purpose of this district is to promote public health and safety and minimize loss due to flood conditions.

17.29.010 Purpose.

(1) The purpose of the Flood Management Area (FM) District is to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- (a) To protect human life and health;
- (b) To minimize expenditure of public money and costly flood control projects;
- (c) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (d) To minimize prolonged business interruptions;
- (e) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- (f) To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- (g) To ensure that potential buyers are notified that property is in an area of special flood hazard;
- (h) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions; and
- (i) To protect Flood Management Areas, which provide the following functions:
 - (A) Protect life and property from dangers associated with flooding;

(B) Flood storage, reduction of flood velocities, reduction of flood peak flows and reduction of wind and wave impacts;

(C) Maintain water quality by reducing and sorting sediment loads, processing chemical and organic wastes and reducing nutrients;

(D) Recharge, store and discharge groundwater; and

(E) Provide plant and animal habitat and support riparian ecosystems.

Allowed uses, permitting requirements, and review requirements are included in Chapter 17.29.

Areas within Clackamas County

A small portion of the site is within Clackamas County jurisdiction. Clackamas County also administers protections for water quality, habitat conservation, floodplain management and Willamette Greenway districts as well, under Section 700: Special Districts of Title 12: Zoning and Development Ordinance of the County Code (Clackamas County Code 2014). Vegetated corridors and use exemptions of wetland and waterways apply the same as in the GMC described above. HCAs are administered under Section 706. Development in HCAs is subject to review by the County and/or requires a Construction Management Plan pursuant to Subsection 706.06(A). FMAs are administered under Section 703; restoration projects developed within FMAs may require “no-rise” analysis and certification. Willamette River Greenway protection ordinance is administered under Section 705. Permits are also required for development, intensification, or change of use within the greenway and setback lines apply.

Appendix G-14: Lamprey Monitoring Plan

**Evaluation of Portland Harbor Superfund Area Restoration: Larval Pacific Lamprey
Rinearson Natural Area Restoration Site**

Investigators

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For the period 1 April 2015 to 30 June 2035

Submitted March
2015

Project Summary

A. Goal

The goal of this investigation is to evaluate how individual restoration projects affect larval Pacific lamprey, specifically their colonization or occupancy of restored habitat.

B. Objectives

1. Determine whether larval lampreys occupy restoration and reference areas.
2. Determine the types of habitat available and in which types larvae are detected.
3. Characterize species and life history stage that occupy an area.
4. Evaluate the health of larval lamprey detected at each area.

C. Methodology

We propose to determine whether larval lamprey occupy various areas in the Superfund reach of the Willamette River. In general, tributary/slough, confluence (tributary or slough mouths within the mainstem) and shoreline habitat types will be sampled in both restoration and reference areas. Areas will be sampled pre-implementation as well as years 1-5, 10, 15 and 20 post-implementation. In wadeable habitats, we will use backpack electrofishing to sample for larval lamprey. In non-wadeable habitats we will use deep-water electrofishing technology to sample for larval lamprey. Using a similar approach as that in Jolley et al. (2012a), previously applied to a study of larval lamprey use of the Lower Willamette River, we will determine occupancy within several explicit scales. Generally, slough or tributary areas of interest will be divided into 25-50 m reaches for subsampling. If a slough or tributary is sufficiently short, the entire length will be sampled. Mainstem river areas of interest (e.g., shoreline or confluence habitats) will be divided into 30 m x 30 m quadrats for subsampling. A generalized random tessellation-stratified (GRTS) technique will be used to select sampling reaches or quadrats in a random, spatially-balanced order. This approach generates an unbiased sample design that allows the probability of presence to be quantified when lamprey are not captured, detection probabilities to be calculated when lamprey occupy an area, and allows statistical evaluation of temporal changes.

For this proposal, locations include the Rinearson restoration area (tributary/slough and confluence habitat) and Cemetery Creek reference area (tributary/slough and confluence habitat).

D. Relevance

Pacific lamprey numbers have declined to a remnant of those for historical populations. As a result, Pacific lamprey has become a species of concern for federal and state agencies, Native American tribes, and the local public (Close et al. 2002; Luzier et al. 2011). In 2003, Pacific lamprey was petitioned for listing under the Endangered Species Act, and Oregon and Idaho currently list Pacific lamprey as a species of concern. Water and sediment quality was identified as a major threat for Pacific lamprey in the Pacific Lamprey Assessment and Template for Conservation Measures (Luzier et al. 2011). A Conservation Agreement was signed in 2012 by tribal, state, federal, and local agencies as a cooperative effort to reduce threats to Pacific lamprey and improve their habitats and population status (USFWS 2012). Monitoring the effectiveness of research and conservation actions is a primary objective of the Conservation Agreement.

The Portland Harbor Natural Resource Trustee Council Tribal Working Group (TWG) has found sufficient evidence that lamprey have been injured due to the release of hazardous substances in Portland Harbor and require compensation for these injuries. While restoration of habitat will most likely benefit lamprey as well as other species, additional compensation is appropriate to offset the lost services provided by lamprey due to their unique importance to tribes. Injury to larval lamprey due to contamination was identified through preliminary toxicity testing performed by the Trustee Council. The lost use of lamprey due to contamination was identified through interviews with Tribal members. During two workshops with Tribal and Trustee lamprey experts, the TWG learned that not enough is known about the types of habitat that

lamprey prefer in large river systems or what habitat features would be most effective in the design of restoration projects targeted at benefiting lamprey. The TWG, with the help of the lamprey experts, decided that the best use of resources at this time is to incorporate a comprehensive lamprey monitoring program into the harbor-wide restoration monitoring plan, rather than design restoration projects specifically for lamprey. The purposes are to evaluate whether the restoration projects designed to benefit salmon and other species also benefit lamprey, and to gather data about habitat use by larval lamprey that may be used by the Tribal Trustees and others in the future to improve the design of restoration projects for lamprey.

The patterns of occupancy, abundance, and habitat use by larval Pacific lamprey in restored areas that are in or adjacent to relatively large rivers has been largely unexplored. Recent findings indicate potentially widespread occupancy of larval lamprey in a variety of mainstem (large river) habitats (Jolley et al. 2010, 2011, 2012a; 2012b). Information from the proposed study can be used to help inform whether restoration of the Superfund Area is beneficial to lamprey. Learning if and how lampreys recolonize and use restored areas in or near mainstem habitats is essential for understanding of the effects of Superfund Area restoration.

Project Description

A. Background

Pacific lamprey *Entosphenus tridentatus* in the Columbia River Basin (CRB) and other areas have experienced a great decline in abundance (Close et al. 2002) and have been given protected status within Oregon (Kostow 2002). Lamprey are culturally important to Native American tribes, are ecologically important within the food web, and are an indicator species whose decline provides further insight into the impacts of human actions on ecological function (Close et al. 2002). Much information is lacking on the basic biology, ecology, and population dynamics that is required for effective conservation and management.

Pacific lampreys have a complex life history that includes a multiple year larval (ammocoete), migratory juvenile, and adult marine phase (Scott and Crossman 1973). Larvae and juveniles are strongly associated with stream and river sediments. Larvae live burrowed in stream and river sediments for multiple years after hatching, where they filter feed detritus and organic material (Sutton and Bowen 1994). Larvae metamorphose into juveniles from July to December (McGree et al. 2008) and major migrations are made downstream to the Pacific Ocean in the spring and fall (Beamish and Levings 1991). The sympatric western brook lamprey *Lampetra richardsoni* does not have a major migratory or marine life stage although adults may locally migrate upstream before spawning (Renaud 1997). For both species, the majority of the information on habitat preference of larvae comes from CRB tributary systems (Moser and Close 2003; Torgersen and Close 2004; Stone and Barndt 2005; Stone 2006) and coastal systems (Farlinger and Beamish 1984; Russell et al. 1987; Gunckel et al. 2009).

Larval lamprey are known to occur in sediments of low-gradient streams (<5th order [1:100 scale]; Torgersen and Close 2004) but their use of larger river habitats in relatively deeper areas is less known. Downstream movement of larvae, whether passive or active, occurs year-round (Nursall and Buchwald 1972; Gadowski and Barfoot 1998; White and Harvey 2003). Sea lamprey *Petromyzon marinus* ammocoetes have been documented in deepwater habitats in tributaries of the Great Lakes, in proximity to river mouths (Hansen and Hayne 1962; Wagner and Stauffer 1962; Lee and Weise 1989; Bergstedt and Genovese 1994; Fodale et al. 2003a), and in the large, connecting St. Marys River (Young et al. 1996). References to other species occurring in deepwater or lacustrine habitats are scarce (American brook lamprey *Lampetra appendix*; Hansen and Hayne 1962). In the Pacific Northwest, anecdotal observations exist regarding larval lamprey occurrence in large river habitats, mainly at Columbia River hydropower facilities (Moursund et al. 2003; CRITFC 2008), impinged on screens associated with juvenile bypass facilities, or through observation during dewatering events. These occurrences are thought to be associated with downstream migration and specific collections of supposedly migrating ammocoetes have been made in large river habitats (Beamish and Youson 1987; Beamish and Levings 1991). More recently, evaluations of larval Pacific lamprey occupancy and distribution in mainstem river habitats have suggested widespread occurrence in certain areas of the Columbia River and Willamette River mainstem (Jolley et al. 2011; Jolley et al. 2012b; Jolley et al. 2014)

In 2000, the U.S. Environmental Protection Agency declared the Portland Harbor area of the Willamette River as a Superfund site. The Superfund study reach (Figure 1) extends from river kilometer 3.2 to river kilometer 18.9 and has a broader focus area (Figure 1) extending from the Columbia River to Willamette Falls. To mitigate for environmental damage that has been done, these areas are subject to various restoration activities as well as assessments of the effectiveness of any restoration. It is unclear whether any of the proposed aquatic restoration activities, which are primarily focused on salmonids, will improve conditions for Pacific lamprey. As such, there is interest in monitoring the effectiveness of the restoration, in part, relative to larval Pacific lamprey.

A lamprey monitoring plan (LMP) was developed based on a set of monitoring goals and objectives that were identified by Trustee Council lamprey experts over two workshops held in the fall of 2011. This LMP was developed to simultaneously monitor the impact of restoration actions on lamprey populations and health in Portland Harbor by gathering information about larval lamprey life history, biology, and habitat use. This information may be used by the Trustee Council in the future to design and evaluate lamprey-specific restoration projects. Since lampreys are very different from other biota, the overlap between the LMP and the

general restoration monitoring and stewardship plan is not extensive. The LMP differs from the general restoration monitoring and stewardship plan, in part, because the lamprey monitoring is proposed to continue for a period of 20 years. In most cases, the metrics proposed for collection as part of the lamprey monitoring effort need to be co-located with lamprey sampling. To maximize efficiencies, the Trustee Council will use the data collected as part of the lamprey monitoring plan for the general restoration monitoring and stewardship effort as much as possible. The experts recommended monitoring lamprey for 20 years, with the goal of capturing data for 1 to 2 complete generations. Pre-implementation monitoring will be conducted at each restoration site. Lampreys may colonize habitats rapidly. Therefore, monitoring will be conducted on a yearly basis for the first five years, and every five years thereafter.

Here we propose to investigate and document patterns of larval lamprey occupancy and habitat use in or near restoration areas. Obtaining the information on whether lampreys use the habitats in and adjacent to restoration areas is critical to understanding the effectiveness of the restoration. At present, little specific information is available on whether and how larvae will use restored areas, how quickly and which life stage colonizes these areas, and how long they use these areas. In general, the proposed work is guided by the LMP. However, due to site specific conditions and constraints, the specific metrics and timing of monitoring proposed for any given site may differ slightly from those outlined in the LMP.

B. Objectives

1. Determine whether lampreys occupy restoration and reference areas.
2. Determine the types of habitat available and in which types lamprey are detected.
3. Characterize species and life history stage that occupy an area.
4. Evaluate the health of lamprey detected at each area.

C. Study Area

Restoration Area

There is a proposed action to improve habitat in the Rinearson Natural Area (Clackamas County, OR). The Rinearson Natural Area is located on the east side of the Willamette River, just downstream of where the Clackamas River enters the Willamette River. Currently the area has slough or tributary habitat as well as a confluence area and associated shoreline. Larval lamprey are known to occur in the mainstem of the Willamette River in this area (Jolley et al. 2012b), and have access to and the potential to occur in or occupy the tributary/slough, confluence and shoreline habitats of the area being proposed for restoration. However, it is unknown whether lamprey currently occur in or occupy the tributary/slough, confluence or shoreline habitats in this area. The proposed restoration area can be seen in Figure 2. Proposed actions include improvements to the tributary/slough habitat. Pre- and post-restoration monitoring is required to understand the effects of the restoration. In the case of Rinearson Natural Area, this proposal includes monitoring tributary/slough habitat and the confluence habitat.

Reference Area

Cemetery Creek and associated confluence habitat (Figure 3) are proposed as a reference area to complement the Rinearson restoration. Since the Rinearson restoration area currently has slough or tributary and confluence habitat, to assess the restoration the inclusion of a reference site with slough or tributary and confluence habitat is appropriate for a before-after-control-impact (BACI) approach. A BACI approach to monitoring would provide some ability to make inferences about the effect of the restoration activity.

D. Methods

Sample framework

To make inferences about whether changes observed at the restoration area are the result of the

restoration action, we propose to use a BACI approach. Thus, we propose to determine whether larval Pacific lamprey occupy the restoration and reference areas both prior to and after restoration actions. In general, restoration and reference sites are likely to have one or more of three distinct habitat types, 1) tributary or slough, 2) confluence and 3) shoreline areas. Tributaries or sloughs would typically be (braided networks of) wadeable water. Confluence areas are being defined as 100 m radius arcs of mainstem habitat (in the Willamette River or Multnomah Channel), with the arc center originating near the midpoint of the tributary or slough mouth intersection with the mainstem. Shorelines are being defined as 100 m wide bands in the mainstem (Willamette River or Multnomah Channel) that are adjacent and parallel to the shoreline. Where possible and appropriate, each of these areas will be sampled to determine occupancy.

For each tributary or slough area longer than 400 m, we will develop a layer of 50 m reaches. For the two types of mainstem areas (shoreline and confluence), we will develop a layer of 30 m x 30 m quadrats using ArcMap 9.3 (ESRI [Environmental Systems Research Institute], Redlands, California) which will be overlaid on these areas. We will use a generalized random tessellation-stratified (GRTS) approach to select sampling reaches or quadrats in a random, spatially-balanced order (Stevens and Olsen 2004). The GRTS approach will be applied to all reaches or quadrats to generate a random, spatially-balanced sample design for this area of interest. This approach is used to generate an unbiased sample design as well as help quantify detection probabilities and the likelihood that an area is occupied if larvae are not observed.

As they are selected in the GRTS approach, the reaches or quadrats are ordered sequentially and the lower numbered reaches or quadrats are given highest priority for sampling. Unfeasible reaches or quadrats (e.g., dewatered, inaccessible, physical impediment, excessive depth for our configuration, unsuitable hydraulics) will be eliminated from the sample through reconnaissance surveys and all subsequent reaches or quadrats will be increased in priority. Generally, reaches or quadrats in which the UTM center point is wetted will be considered feasible.

We propose to use a sampling effort (number of sample reaches or quadrats) that, in the case they are not detected, we estimate would allow us to be at least 80% certainty that larval lamprey do not occupy a sample area (20% occurrence) (see Bayley and Peterson 2001, Peterson and Dunham 2003). The amount of effort was based, in part, on estimates from reach-specific (see Silver et al. 2010) and quadrat-specific (see Jolley et al. 2012b) probabilities of detection generated from previous work. Sample effort was also dependent, in part, on total area. For tributaries or sloughs, if the area of interest is less than 400 m in length, we propose to sample all reaches (contiguous 50 m reaches). If the area of interest is 400 m or longer, we propose to sample seven reaches. For mainstem areas (shorelines and confluence), if the area is such that fewer than 10 quadrats exist, we propose to sample all quadrats. If the area is such that 10 or more quadrats exist, we propose to sample 10 quadrats.

In the Rinearson restoration area, we anticipate the sample effort will correspond to 6-8 contiguous, 50 m tributary reaches and 10 confluence quadrats (Figure 4). In the Cemetery reference area, we anticipate the sample effort will correspond to 5, 50 m tributary reaches and 10 confluence quadrats (Figure 3).

Sample technique - fish

For tributary or slough (wadeable) areas, a sampling event will consist of using an AbP-2 backpack electrofisher (Silver et al. 2010) in a 50 m reach. Initially, the electrofisher delivers three DC pulses per second at 25% duty cycle, 125 V, with a 3:1 burst pulse train (i.e., three pulses on, one pulse off). This current is designed to stimulate burrowed ammocoetes to enter the water column. Once a larva is observed in the water column, 30 pulses/second are applied to temporarily immobilize the larva for capture in a net.

For confluence and shoreline areas, a sampling event will consist of using a boat-mounted deep-water electrofisher (Bergstedt and Genovese 1994, Jolley et al. 2012a; Figure 5) in a 30 m x 30 m quadrat. This quadrat size was selected based on the previous experience of sea lamprey researchers in the Great Lakes (M. Fodale, USFWS, personal communication) as their sampling evolved from a systematic to adaptive approach (Fodale et al. 2003b). The bell of the deep-water electrofisher is lowered to the river bottom. The electrofisher delivers three DC pulses per second at 10% duty cycle, with a 2:2 pulse train (i.e., two pulses on,

two pulses off). Output voltage will be adjusted at each quadrat to maintain a peak voltage gradient between 0.6 and 0.8 V/cm across the electrodes. Suction is produced by directing the flow from a pump through a hydraulic eductor prohibiting larvae from passing through the pump. Suction will begin approximately 5 seconds prior to shocking to purge air from the suction hose. Shocking will be conducted for 60 seconds, and the suction pump remain on for an additional 60 seconds after shocking to ensure collected larvae passed through the hose and emptied into a collection basket (27 x 62 x 25 cm; 2 mm wire mesh). The sampling techniques are described in detail by Bergstedt and Genovese (1994) and are similar to those used in the Great Lakes region (Fodale et al. 2003a). The deep-water electrofisher can sample in areas as shallow as 15 cm and as deep as 20 m.

Collected lampreys will be anesthetized in a solution of tricaine methanesulfonate (MS-222), identified to either Pacific lamprey or *Lampetra* spp. according to caudal pigmentation (if greater than 60 mm TL; Figure 6; Goodman et al. 2009), and classified according to developmental stage (i.e., ammocoete, macrophthalmia, or adult). Lampreys will be measured (TL in mm), weighed (W in g), and caudal fin tissue will be collected and preserved in 100% ethanol for potential, subsequent genetic analysis to confirm identification. Any physical anomalies (lesions, suspected bird strikes, etc.) will be recorded for all larvae. If larvae with tumors are collected, they will be euthanized and preserved for potential evaluation at a later date. In addition, any observations of juveniles, adults, or suspected Pacific lamprey nests will also be recorded. Lampreys will be placed in a recovery bucket of fresh river water and released after they can maintain an upright position and resume swimming behavior. Previous use of these methodologies (for example, see Jolley et al. 2009) suggests that captured larval lamprey experience little or no injury and mortality.

Sample technique - habitat

Concurrent to each sampling event a sediment sample will be taken (if possible) from each reach or quadrat by using a Ponar bottom sampler (16.5 cm x 16.5 cm). Each sample will be mixed thoroughly and approximately two, 250-500 ml subsamples will be transferred to containers provided by a contracted (by someone other than the USFWS) laboratory. Each sample will be labeled with the sample site number, duplicate number and date, placed on ice, returned to the USFWS station and subsequently handled per the instructions provided from the contracted laboratory. All sediment samples will be made available to the contracted laboratory for subsequent analysis.

Water temperature (°C), conductivity (µS/cm) and water depth will be measured (tributaries or sloughs in cm, mainstem areas in m) in each sample reach or quadrat. In general, larval lamprey habitats have been classified as Type I, II, or III, and it is widely accepted that larvae appear to most prefer Type I and least prefer Type III (see Slade et al. 2003). As such, we will estimate the proportion of Type I, II, and III habitat in each of the wadeable sample reaches.

Analysis

Occupancy: If Pacific lamprey larvae are detected, the area of interest will be defined as occupied. Using detection probabilities estimated from previous work (Silver et al. 2010; Jolley et al. 2012a), if larvae are not detected, we would estimate at least an 80% level of certainty that they are not present in (occur in 20% or more of) the area. Occupancy will be summarized and compared between the restoration and reference sites. The probabilistic sampling approach will provide a basis for using a BACI approach to make inferences about the utility of the restoration.

Relative Abundance: When possible, detection probabilities will be calculated. While absolute abundance may be difficult or impossible to calculate, detection probability may be useful as an index of relative abundance. When possible, detection probabilities will be summarized and compared between the restoration and reference sites. In addition, sample effort in wadeable areas will be tracked and CPUE will be calculated. When possible, CPUE will be summarized and compared between the restoration and reference sites.

Grain size, grain type, sediment contaminant concentrations, organic content: Sediment samples and associated data will be provided to a contracted laboratory for analysis of these variables. The laboratory will provide any results to the FWS for inclusion in the final report.

Water temperature, conductivity, and depth: Water temperature, conductivity, and depth characteristics will be summarized and compared between the restoration and reference sites.

Length and weight: The size-structure of captured lamprey will be described (i.e., mean TL, length-frequency histograms) and be related to published studies of size and age (e.g., Meeuwig and Bayer 2005). Size structure will also be compared between the restoration and reference sites.

Species composition: Population composition will be described (i.e., proportion that are *Entosphenus tridentatus*, proportion that are from the genus *Lampetra*) and be related to published studies of population composition in mainstem areas of the Willamette River (e.g., Jolley et al. 2012b). Population composition will also be compared between the restoration and reference sites.

Qualitative health assessment: Physical anomalies will be described (i.e., proportion of larvae with lesions) and compared between the restoration and reference sites.

Habitat: The proportion of each habitat type (I, II, III) in a reach as well as at the site will be summarized. The relationship between the proportion of each habitat type in a reach or site and whether or not larvae were detected in that reach or site will be characterized.

Life history stage: The presence of various life stages will be described (i.e., number of Pacific lamprey nests observed) and compared between the restoration and reference sites.

Inference and Expectations

The ability to make a specific inference about the effect of a given restoration activity will be influenced, in part, by sample design, variability in the metrics as well as whether or not lamprey are detected. For many of the metrics listed above, what variability will be encountered and whether lamprey will be detected is unknown and difficult to predict. There is a finite set of likely occupancy outcomes (Table 1). One anticipated outcome (for example) is that prior to restoration, larvae will not occupy project areas but will occupy reference areas whereas sometime after restoration, larvae will occupy both project and reference areas. This outcome would support an inference that restoration, at least in part, allowed lamprey to colonize or occupy the restored area. An alternative outcome (for example) is that prior to and after restoration, larvae will not occupy project or reference areas. This outcome would not allow for any (or very limited) inference to be made about the utility of the restoration. For additional discussion concerning inference, see Section C (above), Study Area.

Work locations and schedule *

Restoration site: Rinearson.

Reference site: Cemetery.

Estimated sample period: May-October, 2015 (pre-restoration).

Outyears: 2016-2020, 2025, 2030, 2035 (post-restoration).

*Schedule may be adapted as necessary

E. Facilities and Equipment

The field sampling will be carried out by staff of the Columbia River Fisheries Program Office (CRFPO). Currently, the CRFPO has vehicles, a backpack electrofisher, a deep-water electrofishing configuration, boat, and boat trailer as well as office resources necessary to conduct this study. The boat is equipped with appropriate safety equipment and operators have been trained through the Department of Interior, Motorboat Operator Certification Course.

F. Biological Impacts

The proposed project should not have any significant impact on the population health or status of Pacific lamprey. All collected lamprey will be released. The collection methods should not affect any other listed species (i.e. no take of other native species).

G. Key Personnel

Jeffrey C. Jolley (Ph.D.), is a Supervisory Fish Biologist with the U.S. Fish and Wildlife Service, Columbia River Fisheries Program Office.

Howard A. Schaller (Ph.D.), is the Project Leader of the U.S. Fish and Wildlife Service, Columbia River Fisheries Program Office.

Gregory S. Silver, (B.Sc.) is a Fishery Biologist with the U.S. Fish and Wildlife Service, Columbia River Fisheries Program Office.

Christina Wang, (M.Sc.) is a Fishery Biologist with the U.S. Fish and Wildlife Service, Columbia River Fisheries Program Office.

Timothy A. Whitesel (Ph.D.), is a Supervisory Biometrician with the U.S. Fish and Wildlife Service, Columbia River Fisheries Program Office.

Project planning, administration, and reporting: J. Jolley, H. Schaller, C. Wang, T. Whitesel
Work plan preparation, protocols, permits: J. Jolley, T. Whitesel

Field sampling of larval lamprey: J. Jolley, G. Silver

Analysis of data and preparation of report segments: J. Jolley, G. Silver, T. Whitesel

H. Technology Transfer

Information and analyses from this study will be transferred in the form of written and/or oral reports. Appropriate findings may be published in technical journals and presented at regional or national professional society symposia. Special efforts will be made to provide information to managers as needed.

Products timeline

March 31, 2016 – draft final report

June 30, 2016 – final report

I. Estimated Budget¹**2015: Estimated budget for pre-restoration sampling (one event)**Rinearson restoration site:*Shoreline Areas*

Personnel – 0
 Non-personnel – 0
 Contingency – 0
 O/H – 0
 Total – 0

Confluence Areas

Personnel – 927
 Non-personnel – 129
 Contingency – 52
 O/H – 477
 Total – 1,584

Slough and Tributary Areas

Personnel – 1,288
 Non-personnel – 258
 Contingency – 103
 O/H – 710
 Total – 2,358

Analysis and information exchange:

Personnel – 5,073
 Non-personnel – 103
 Contingency – 0
 O/H – 2,229
 Total – 7,405

Grand total: 14,110

Cemetery reference site:*Shoreline Areas*

Personnel – 0
 Non-personnel – 0
 Contingency – 0
 O/H – 0
 Total – 0

Confluence Areas

Personnel – 927
 Non-personnel – 129
 Contingency – 52
 O/H – 477
 Total – 1,584

Slough and Tributary Areas

Personnel – 644
 Non-personnel – 129
 Contingency – 52
 O/H – 355
 Total – 1,179

¹ This budget reflects costs to FWS for one sampling event, but is not reflective of all costs related to lamprey monitoring. For example, it does not include the costs of sediment analyses or related contingency, or costs related to potential equipment replacement.

J. References

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Figure 1. Harborwide restoration focus area, outlined in red and yellow.

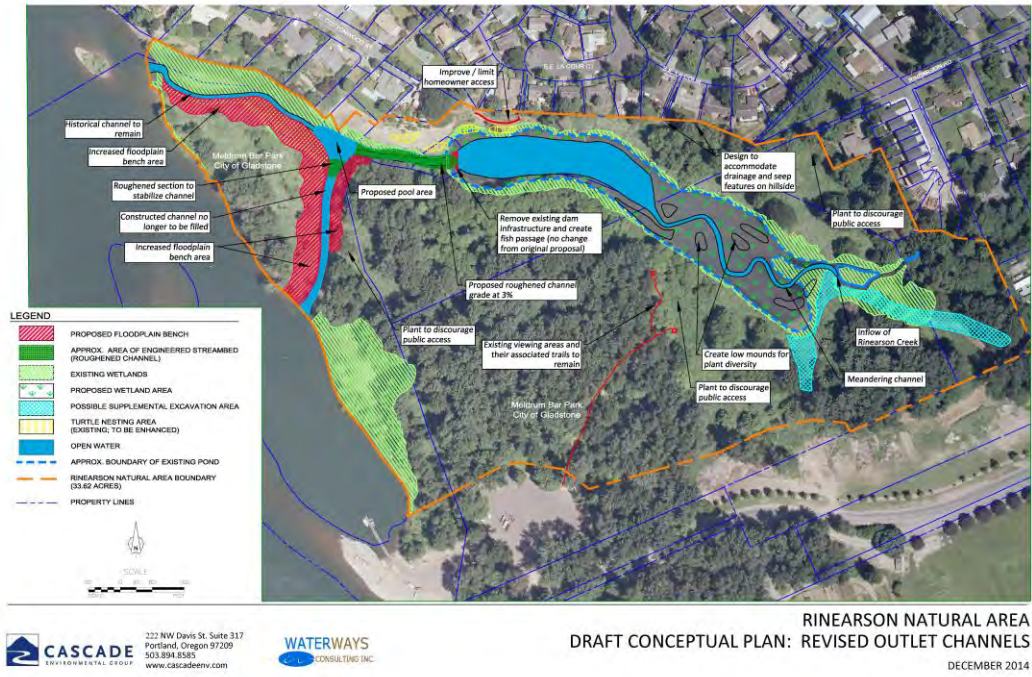


Figure 2. Proposed Rinearson restoration project area.

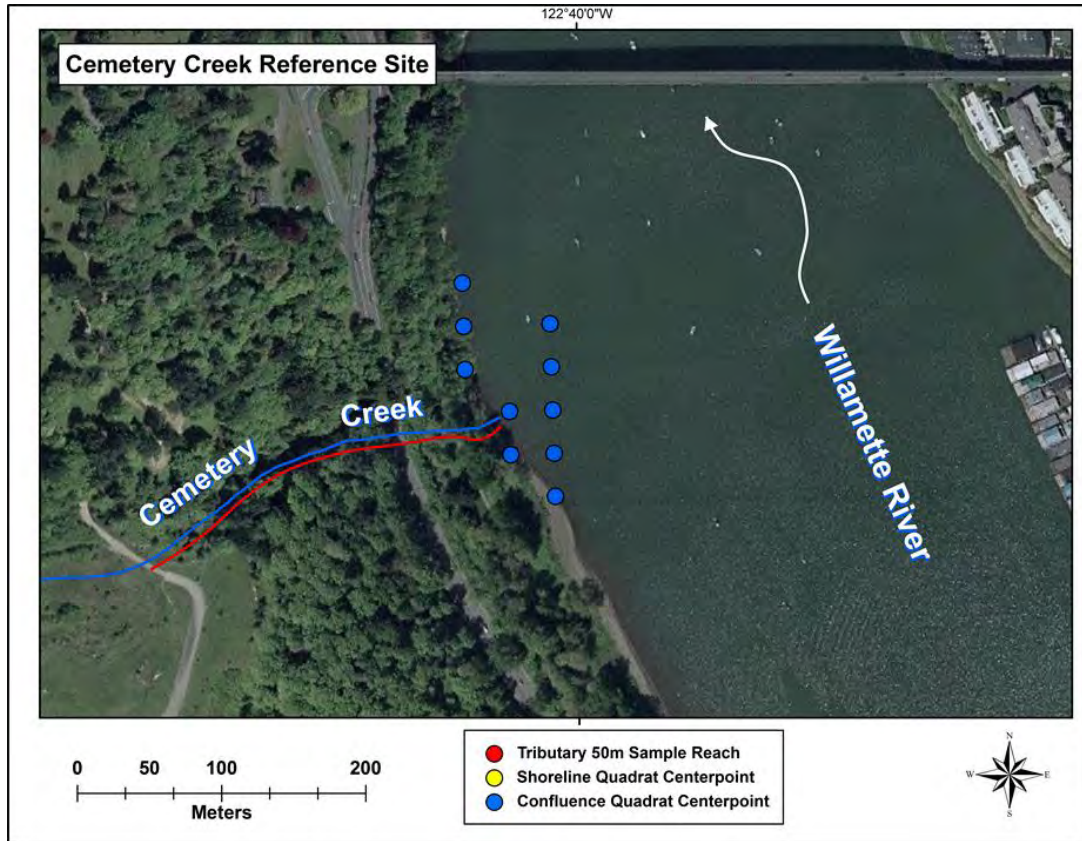


Figure 3. Proposed sample design for the Cemetery Creek reference area. Shoreline sample quadrats (100 m wide band, yellow points), confluence sample quadrats (100 m radius arc, blue points), and tributary sample area (50 m reaches, red points for separate reaches or red line for contiguous reaches) are shown. Blue line represents tributary or slough.

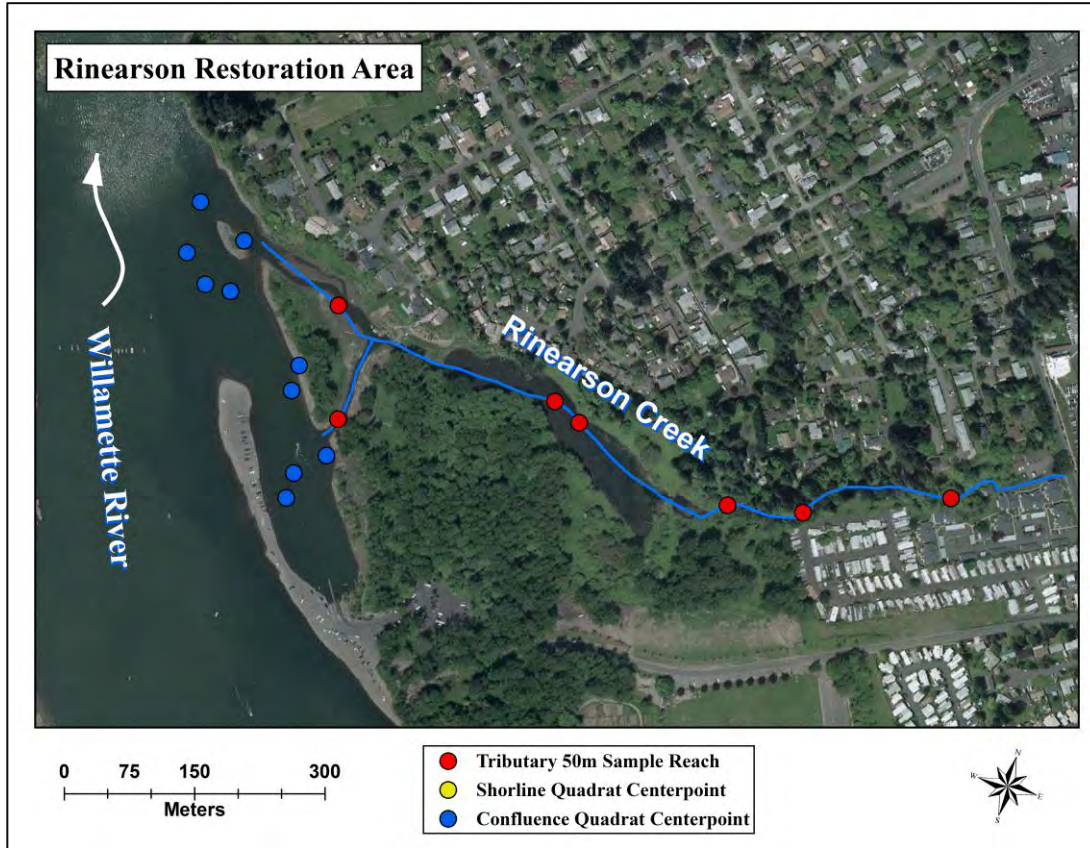


Figure 4. Proposed sample design for the Rinearson restoration area. Shoreline sample quadrats (100 m wide band, yellow points), confluence sample quadrats (100 m radius arc, blue points), and tributary sample area (50 m reaches, red points for separate reaches or red line for contiguous reaches) are shown. Blue line represents tributary or slough.

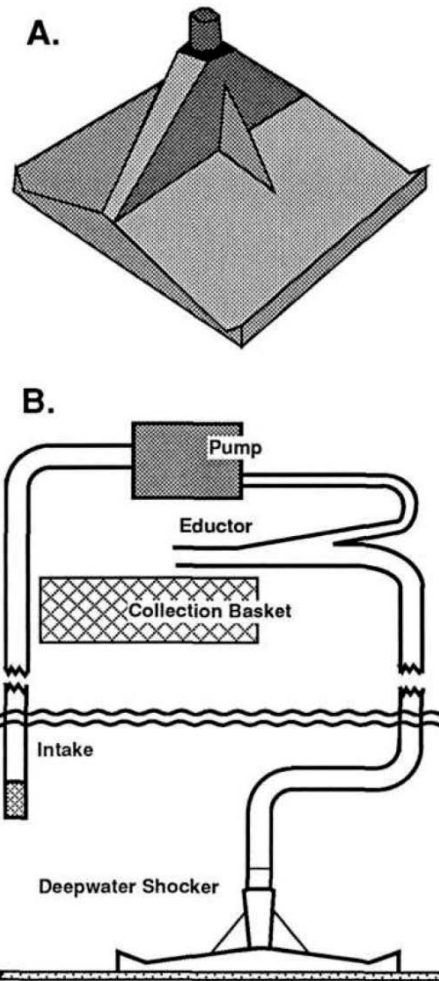


Figure 5. (A) Deepwater electrofishing device for driving lamprey larvae from the bottom and (B) the pumping system used to move them to the surface for collection. Figure taken from Bergstedt and Genovese (1994).

Lamprey Ammocoete I.D. Guide

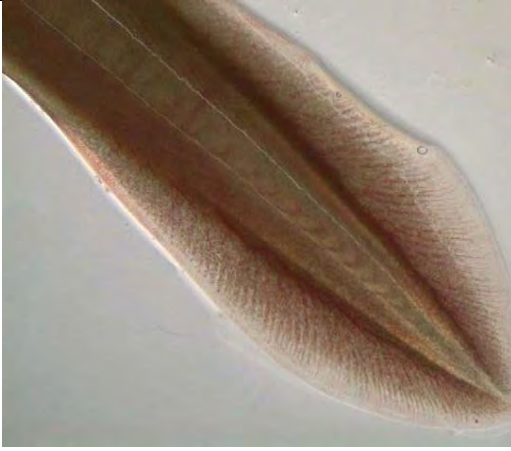

Species	Pacific Lamprey <i>Entosphenus tridentata</i>	Western Brook Lamprey (River Lamprey) <i>Lampetra Richardsons</i> (<i>Lampetra ayresi</i>)
Picture		
Caudal Ridge	Light pigmentation	Dark, even pigmentation
Caudal Fin	Darker pigmentation (hard to see w/ bare eyes)	Translucent or peppered pigmentation
Ventral (Belly)	Light pigmentation	Dark, even pigmentation
Myomere Counts	Higher counts	Lower counts

Figure 6. Larval lamprey identification guide.

Table 1. Description of possible occupancy scenarios, by site (Reference or Restoration) and time period (Before or After restoration); O = occupied; U = Unoccupied. Using the BACI approach, to attribute a response to a restoration action, it will be necessary to see a change at the restoration site and for that change to be different than any change seen at the reference site.

	Before Restoration	After Restoration
Restoration Site	O or U	O or U
Reference Site	O or U	O or U

EVALUATION OF PORTLAND HARBOR SUPERFUND AREA RESTORATION: RINEARSON NATURAL AREA RESTORATION SITE LAMPREY MONITORING PLAN - ADDENDUM 1

SEDIMENT SAMPLING AND ANALYSIS PLAN

DRAFT | 31 March 2015

A. Goal

Describe habitat conditions at specific locations within the Rinearson Natural Area restoration site and associated Cemetery Creek reference site to supplement information collected by FWS under the central monitoring plan for this site, “Evaluation of Portland Harbor Superfund Area Restoration: Larval Pacific Lamprey Rinearson Natural Area Restoration Site.”

B. Methodology

Concurrent with the lamprey sampling event described in the central monitoring plan entitled “Evaluation of Portland Harbor Superfund Area Restoration: Larval Pacific Lamprey – Rinearson Natural Area Restoration Site,” sediment samples will be collected and analyzed for grain size, total solids, and organic content from each lamprey sampling location. Where possible, sediment will be collected using a Ponar bottom sampler. After the sampler is deployed and retrieved, the Ponar will be emptied into a stainless steel bucket or pan and thoroughly mixed with a stainless steel spoon. Debris such as rocks and sticks or wood chunks will be removed from the sample material before filling sample containers. From the collected sample, 1-8 oz. sample container and 1-4 oz sample container (provided by the contracted laboratory) will be filled with sediment, minimizing the amount of free-standing water in the jar to the extent practical. Sample jars will be labeled with the sample site number, date and time, type of analysis, and then placed on ice and transferred to an on- or off-site, access- controlled building. Chain of custody forms provided by the contracted lab will be completed for all samples. Samples will then be refrigerated at 4 +/- 2°C until transfer to the contracted laboratory. Equipment contacting sediment (Ponar, spoon, and bucket or pan) will be rinsed with water between samples.

At both the restoration site (Rinearson Natural Area) and the reference site (Cemetery Creek), up to three habitat types will be sampled for lamprey as described in the “Evaluation of Portland Harbor Superfund Area Restoration: Larval Pacific Lamprey Rinearson Natural Area Restoration Site.” At both the Rinearson Natural Area restoration site and Cemetery Creek reference site, sampling will occur in the slough/tributary and confluence habitats in all years. Table 1 identifies the habitat types to be sampled at each site respectively, as well as the number of reaches or quadrats (i.e., sample locations) that will be sampled for lamprey and sediment within each habitat type.

Table 1. Sediment Sampling Plan by Site and Habitat Type.

HABITAT TYPE	YEARS SAMPLED	TOTAL LAMPREY SAMPLE LOCATIONS	TOTAL SEDIMENT SAMPLES TO BE COLLECTED
RINEARSON NATURAL AREA RESTORATION SITE			
Shoreline	Not applicable	Not applicable	Not applicable
Slough/Tributary	0-5, 10, 15, 20	6-8	6-8
Confluence	0-5, 10, 15, 20	10	10
CEMETERY CREEK REFERENCE SITE			
Shoreline	Not applicable	Not applicable	Not applicable
Slough/Tributary	0-5, 10, 15, 20	5	5
Confluence	0-5, 10, 15, 20	10	10

C. Analysis and Data Reporting

All samples collected by FWS will be picked up by the contracted laboratory for analysis. As noted above, the contracted laboratory will analyze all samples for grain size, total solids, and total organic carbon. Results of these analyses will be provided to the entity designated by the Trustee Council. Then the designated entity will transmit results to FWS for inclusion in the annual monitoring report.

D. Process for Modification

This sampling and analysis plan applies to years 0 and 1 of the 20-year monitoring period. Following the baseline and year one data collection and analysis events and interpretation of results, the Trustees and FWS will determine whether the sediment sample collection and analysis plan described above warrants modification. Revised plans, if warranted, will be included as an addendum to this plan.

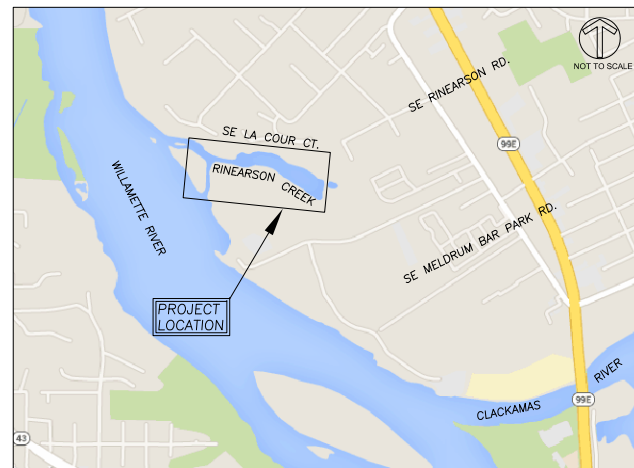
Appendix H: Planting Plan



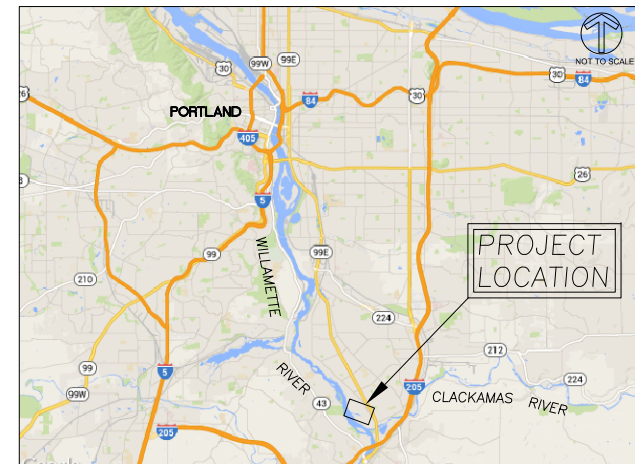
RINEARSON NATURAL AREA RESTORATION PROJECT

PLANTING PLAN

JUNE 29, 2016



LOCATION MAP



VICINITY MAP

PROJECT LOCATION:

RINEARSON NATURAL AREA RESTORATION PROJECT IS LOCATED AT MELDRUM BAR PARK AND RIVER ROAD, IN CLACKAMAS COUNTY, OREGON.
 LATITUDE = 45.379508°, LONGITUDE = -122.614147°

PROJECT DESCRIPTION:

THIS PROJECT INVOLVES RESTORATION OF A PORTION OF LOWER RINEARSON CREEK, INCLUDING MODIFYING AN EXISTING EARTHEN DAM TO PROVIDE FISH PASSAGE AND MASS GRADING OF THE SITE TO CREATE IN-STREAM, WETLAND, AND UPLAND HABITAT AREAS. WORK SHOWN ON THESE PLANTING PLAN DRAWINGS WILL BE CONDUCTED AFTER SITE GRADING ACTIVITIES ARE COMPLETE AND INCLUDES CLEARING AND GRUBBING OF NON-NATIVE PLANT SPECIES IN UPLAND AREAS; PLANTING NATIVE VEGETATION; PLACING LARGE WOOD AND BRUSH PILES IN UPLAND AREAS; AND INSTALLING FENCES, TRAILS, AND HABITAT AREA / ACCESS CONTROL SIGNAGE.

OTHER PROJECT WORK RELATED TO THESE DRAWINGS IS SHOWN ON THE CIVIL PLANS PRODUCED BY WATERWAYS CONSULTING, INC. AND BID SEPARATELY.

PROJECT TEAM

<p>LANDOWNER CITY OF GLADSTONE CONTACT: ERIC SWANSON 525 PORTLAND AVE. GLADSTONE, OR 97027 PH: 503-557-2767</p>	<p>PROJECT SPONSOR RINEARSON NATURAL AREA, LLC CONTACT: DUNCAN HEYWARD 1100 BOUDLERS PARKWAY RICHMOND, VA 23225 PH: 804-330-8091</p>	<p>CIVIL ENGINEER AND SURVEYOR WATERWAYS CONSULTING, INC. CONTACT: JOHN DVORSKY 1020 SW TAYLOR ST. #380 PORTLAND, OR 97205 PH: 503-227-5979</p>
<p>LANDOWNER ROBINWOOD RIVIERE PROPERTY OWNERS ASSOC. CONTACT: BILL DUGAN 4728 SE LA COUR MILWAUKIE, OR PH: 503-655-0578</p>	<p>GEOTECHNICAL ENGINEER HART CROWSER CONTACT: TIM BLACKWOOD 8910 SW GEMINI DR. BEAVERTON, OR 97008 PH: 503-620-7284</p>	

GENERAL NOTES:

1. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER, PROJECT SPONSOR, AND THE OWNER'S REPRESENTATIVE HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, PROJECT SPONSOR, OR THE OWNER'S REPRESENTATIVE.
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND QUANTITIES AND SHALL REPORT ALL DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.
3. LIMIT TRAVEL OUTSIDE OF UPLAND AREAS TO FOOT TRAFFIC ONLY; NO MOTORIZED TRAVEL IN WETLANDS OR WATERWAYS.

SHEET INDEX

- P1 COVER SHEET
- P2 VEGETATION CLEARING AND GRUBBING PLAN
- P3-P5 PLANTING PLANS
- P6 PLANTING LEGEND AND NOTES
- P7 PLANTING DETAILS
- P8 TRAILS, FENCING, AND HABITAT AREA / ACCESS CONTROL SIGNAGE

ATTENTION EXCAVATORS:

OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING 503-232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS BEFORE COMMENCING AN EXCAVATION. CALL 503-246-6699.

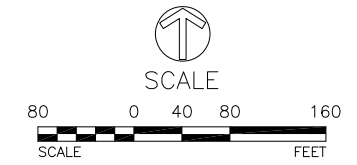
Dig Safely.

Call the Oregon One-Call Center
 DIAL 811 or 1-800-332-2344

COVER SHEET

RINEARSON NATURAL AREA RESTORATION PROJECT
 100% DESIGN SUBMITTAL







DESIGNED BY:
 DRAWN BY:
 CHECKED BY:
 DATE: 6/29/16
 JOB NO.: 00030



CLEAR INVASIVE VEGETATION, BY NON-MECHANICAL AND NON-HERBICIDE MEANS, PRIOR TO ANY UNDERPLANTING OF EXISTING UPLAND FOREST (TYP.)

CLEAR INVASIVE VEGETATION, BY HAND OR A COMBINATION OF HAND CLEARING AND HERBICIDE, PRIOR TO ANY UNDERPLANTING OF EXISTING UPLAND FOREST (TYP). SEE NOTE 2, THIS SHEET, AND SPECIFICATIONS

LEGEND

-  PROPERTY BOUNDARY
-  EXISTING TREES
-  EXISTING CONTOURS. SEE CIVIL PLANS
-  PROPOSED CONTOURS. SEE CIVIL PLANS
-  AREAS TO BE GRUBBED OF INVASIVE VEGETATION (APPROXIMATE; TO BE STAKED IN FIELD PRIOR TO CONSTRUCTION BY QUALIFIED ECOLOGIST). APPROX. 5 ACRES
-  COTTONWOOD HOMES AREA

NOTES

1. EXISTING CONTOURS SHOWN COMBINE CONTOURS DERIVED FROM LIDAR AND TOPOGRAPHIC SURVEYS. TRANSITIONS BETWEEN THESE DATA SOURCES MAY RESULT IN IRREGULAR AREAS SHOWN ON PLANS; FIELD VERIFY
2. ANY HERBICIDE USE MUST STRICTLY ADHERE AT ALL TIMES TO THE HERBICIDE USE REQUIREMENTS IN THE SLOPES V PROGRAMMATIC PERMIT
3. SEED ALL CLEARED AND GRUBBED AREAS IMMEDIATELY AFTER CLEARING AND GRUBBING ACTIVITIES ARE COMPLETE. SEE SPECIFICATIONS
4. CONTRACTOR TO VERIFY LOCATION OF ANY UNDERGROUND UTILITIES PRIOR TO ANY DIGGING ACTIVITIES. FOLLOW ALL RELEVANT RULES

VEGETATION CLEARING AND GRUBBING PLAN

RINEARSON NATURAL AREA RESTORATION PROJECT
100% DESIGN SUBMITTAL

DESIGNED BY: TS/AMM
DRAWN BY: AMM
CHECKED BY: TS/AMM
DATE: 6/29/16
JOB NO.: 00030



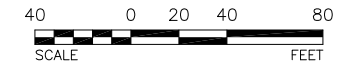
PLANTING PLAN

RINEARSON NATURAL AREA RESTORATION PROJECT
100% DESIGN SUBMITTAL

DESIGNED BY: TS/AMM
DRAWN BY: AMM
CHECKED BY: TS/AMM
DATE: 6/29/16
JOB NO.: 00030



SCALE



VIEWSHED PROTECTION AREA:
NO TREES TO BE PLANTED IN
THIS AREA

SEE HOA TRAIL DETAIL, SHEET P8

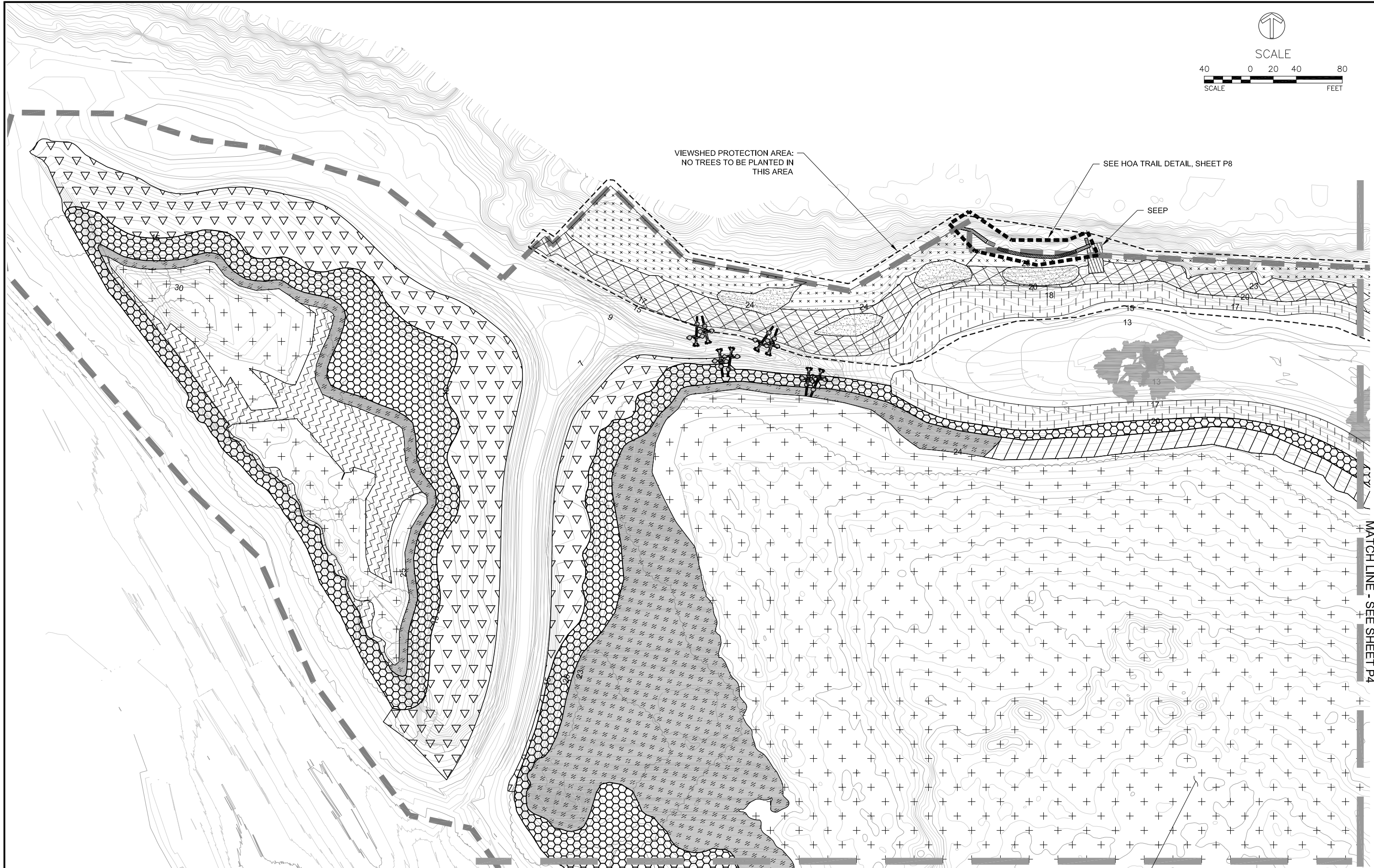
SEEP

MATCH LINE - SEE SHEET P4

MATCH LINE - SEE SHEET P5

NOTE
SEE SHEET P6 FOR PLANTING LEGEND AND NOTES

KEEP EXISTING NATIVE VEGETATION. FOLLOWING CLEARING OF
NON-NATIVE VEGETATION, FILL IN AREAS LACKING VEGETATION
WITH PLANTINGS (TREES AT 10' O.C. AND SHRUBS AT 4' O.C.).
PLANTING LOCATIONS TO BE APPROVED BY OWNER'S
REPRESENTATIVE PRIOR TO PLANTING. SEE SHEET P2 FOR
VEGETATION CLEARING AREAS

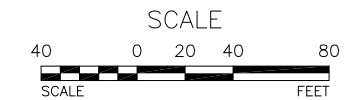




PLANTING PLAN

RINEARSON NATURAL AREA RESTORATION PROJECT
100% DESIGN SUBMITTAL

DESIGNED BY: TS/AMM
DRAWN BY: AMM
CHECKED BY: TS/AMM
DATE: 6/29/16
JOB NO.: 00030

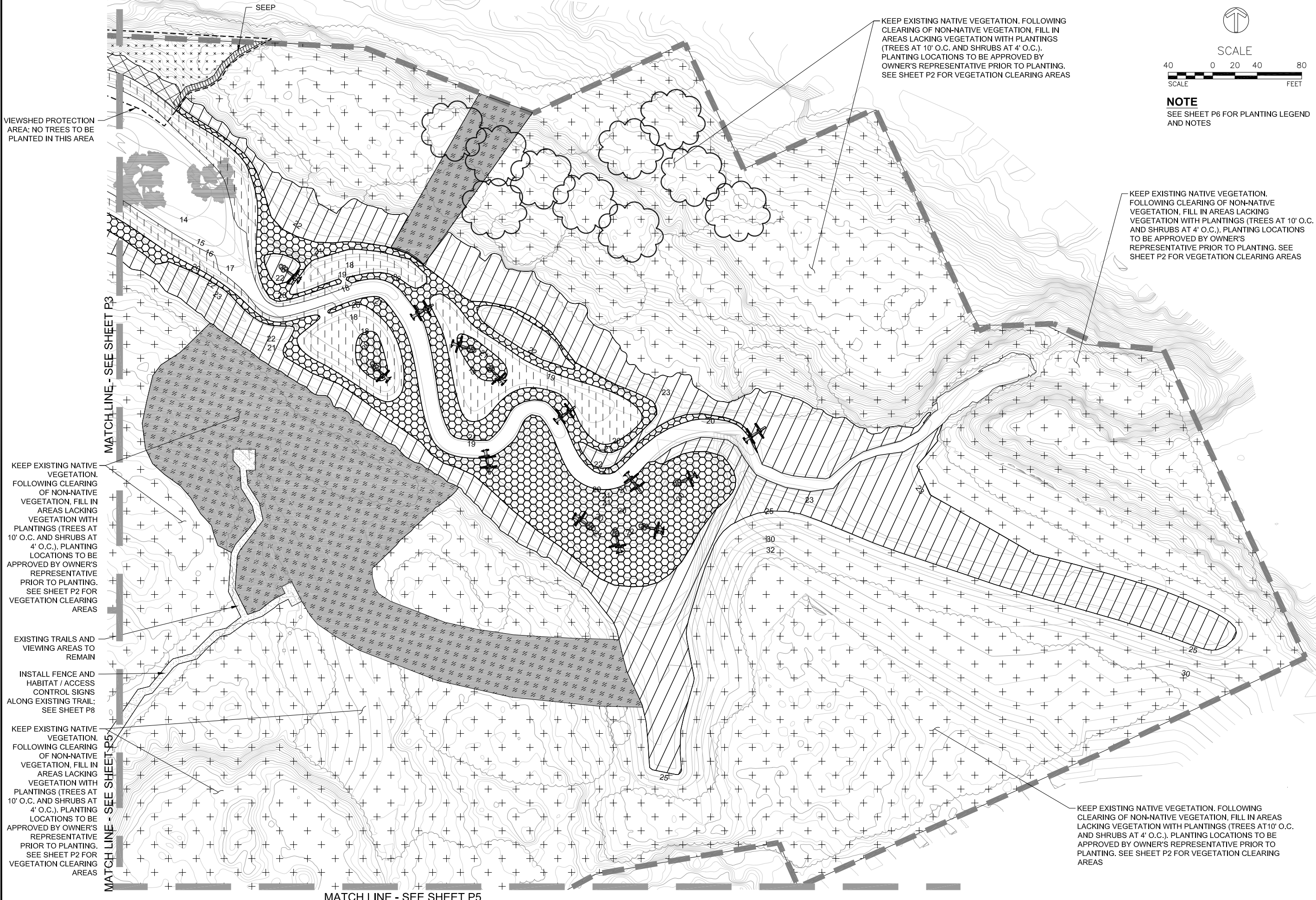


NOTE
SEE SHEET P6 FOR PLANTING LEGEND AND NOTES

KEEP EXISTING NATIVE VEGETATION. FOLLOWING CLEARING OF NON-NATIVE VEGETATION, FILL IN AREAS LACKING VEGETATION WITH PLANTINGS (TREES AT 10' O.C. AND SHRUBS AT 4' O.C.). PLANTING LOCATIONS TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING. SEE SHEET P2 FOR VEGETATION CLEARING AREAS

KEEP EXISTING NATIVE VEGETATION. FOLLOWING CLEARING OF NON-NATIVE VEGETATION, FILL IN AREAS LACKING VEGETATION WITH PLANTINGS (TREES AT 10' O.C. AND SHRUBS AT 4' O.C.). PLANTING LOCATIONS TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING. SEE SHEET P2 FOR VEGETATION CLEARING AREAS

KEEP EXISTING NATIVE VEGETATION. FOLLOWING CLEARING OF NON-NATIVE VEGETATION, FILL IN AREAS LACKING VEGETATION WITH PLANTINGS (TREES AT 10' O.C. AND SHRUBS AT 4' O.C.). PLANTING LOCATIONS TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING. SEE SHEET P2 FOR VEGETATION CLEARING AREAS



VIEWSHED PROTECTION AREA: NO TREES TO BE PLANTED IN THIS AREA

KEEP EXISTING NATIVE VEGETATION. FOLLOWING CLEARING OF NON-NATIVE VEGETATION, FILL IN AREAS LACKING VEGETATION WITH PLANTINGS (TREES AT 10' O.C. AND SHRUBS AT 4' O.C.). PLANTING LOCATIONS TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING. SEE SHEET P2 FOR VEGETATION CLEARING AREAS

EXISTING TRAILS AND VIEWING AREAS TO REMAIN

INSTALL FENCE AND HABITAT / ACCESS CONTROL SIGNS ALONG EXISTING TRAIL; SEE SHEET P8

KEEP EXISTING NATIVE VEGETATION. FOLLOWING CLEARING OF NON-NATIVE VEGETATION, FILL IN AREAS LACKING VEGETATION WITH PLANTINGS (TREES AT 10' O.C. AND SHRUBS AT 4' O.C.). PLANTING LOCATIONS TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING. SEE SHEET P2 FOR VEGETATION CLEARING AREAS

MATCHLINE - SEE SHEET P3

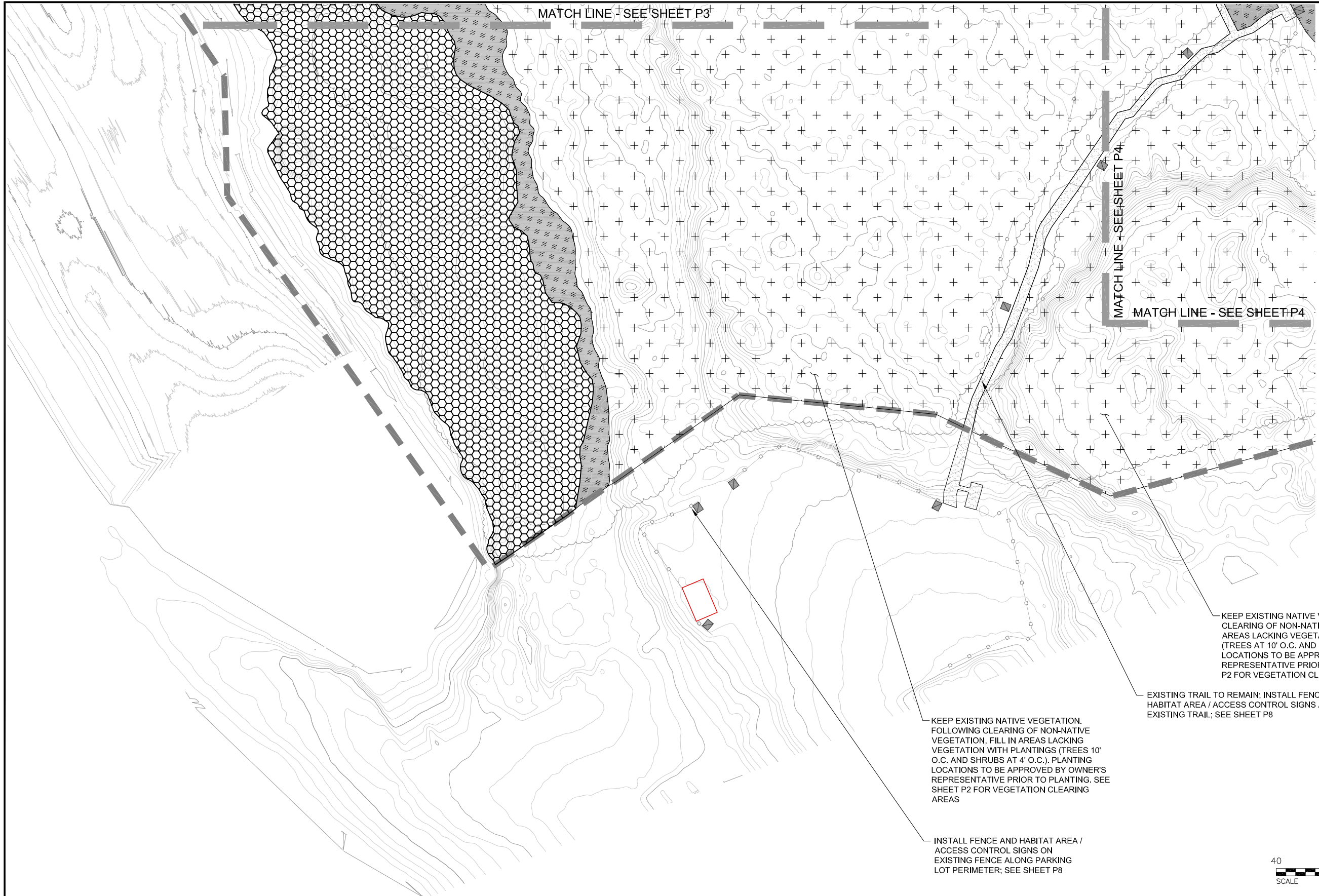
MATCHLINE - SEE SHEET P5

MATCHLINE - SEE SHEET P5



PLANTING PLAN

RINEARSON NATURAL AREA RESTORATION PROJECT
100% DESIGN SUBMITTAL

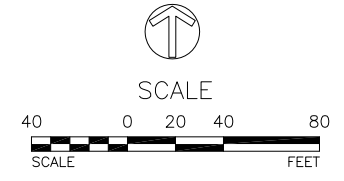


KEEP EXISTING NATIVE VEGETATION. FOLLOWING CLEARING OF NON-NATIVE VEGETATION, FILL IN AREAS LACKING VEGETATION WITH PLANTINGS (TREES AT 10' O.C. AND SHRUBS AT 4' O.C.). PLANTING LOCATIONS TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING. SEE SHEET P2 FOR VEGETATION CLEARING AREAS

EXISTING TRAIL TO REMAIN; INSTALL FENCE AND HABITAT AREA / ACCESS CONTROL SIGNS ALONG EXISTING TRAIL; SEE SHEET P8

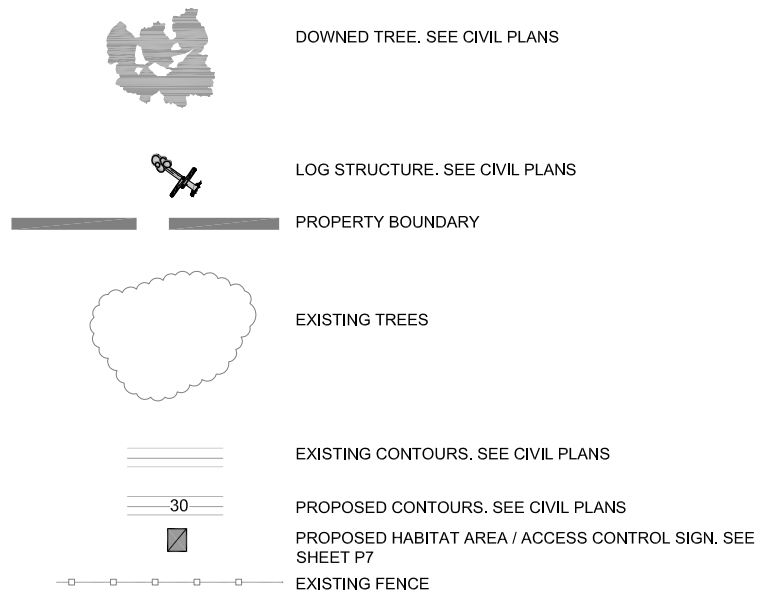
KEEP EXISTING NATIVE VEGETATION. FOLLOWING CLEARING OF NON-NATIVE VEGETATION, FILL IN AREAS LACKING VEGETATION WITH PLANTINGS (TREES 10' O.C. AND SHRUBS AT 4' O.C.). PLANTING LOCATIONS TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING. SEE SHEET P2 FOR VEGETATION CLEARING AREAS

INSTALL FENCE AND HABITAT AREA / ACCESS CONTROL SIGNS ON EXISTING FENCE ALONG PARKING LOT PERIMETER; SEE SHEET P8



NOTE
SEE SHEET P6 FOR PLANTING LEGEND AND NOTES

DESIGNED BY: TS/AMM
DRAWN BY: AMM
CHECKED BY: TS/AMM
DATE: 6/29/16
JOB NO.: 00030



PLANTING LEGEND

	BLACK COTTONWOOD RIPARIAN FOREST (EL. 21.5-24) Total acreage: 1.72ac	
Latin Name	Common Name	Quantity
TREES		
<i>Crataegus douglasii</i>	Black Hawthorn	250
<i>Populus balsamifera sp. trichocarpa</i>	Black Cottonwood	250
<i>Rhamnus purshiana</i>	Cascara	250
SHRUBS		
<i>Cornus sericea</i>	Red-osier Dogwood	785
<i>Malus fusca</i>	Western Crabapple	785
<i>Physocarpus capitatus</i>	Ninebark	785
<i>Rosa pisocarpa</i>	Swamp Rose	785
<i>Symphoricarpos albus</i>	Common Snowberry	785
	ACCESS CONTROL AREA (EL 21.5 +) Total acreage: 2.72ac	
Latin Name	Common Name	Quantity
SHRUBS		
<i>Berberis nervosa</i>	Compact Oregon Grape	1910
<i>Ribes sanguineum</i>	Red Currant	670
<i>Symphoricarpos albus</i>	Common Snowberry	1910
<i>Rosa gymnocarpa</i>	Baldhip Rose	1910
	PACIFIC WILLOW SCRUB-SHRUB WETLAND (EL 15-18) Total acreage: 0.34ac	
Latin Name	Common Name	Quantity
SHRUBS		
<i>Cornus sericea ssp. sericea</i>	Red-osier Dogwood	1200
<i>Lonicera involucrata</i>	Twinberry	1200
<i>Rosa pisocarpa</i>	Swamp Rose	1200
	MIXED WILLOW SCRUB-SHRUB WETLAND (EL. 18-21.5) Total acreage: 2.34ac	
Latin Name	Common Name	Quantity
SHRUBS		
<i>Cornus sericea ssp. sericea</i>	Red-osier Dogwood	3093
<i>Lonicera involucrata</i>	Twinberry	3093
<i>Rosa pisocarpa</i>	Swamp Rose	3093
SHRUB STAKES		
<i>Salix rigida var. macrogemma</i>	Rigid Willow	13174
<i>Salix sitchensis</i>	Sitka Willow	13174
TREE STAKES		
<i>Salix lucida ssp. lasiandra</i>	Pacific Willow	1485
	SLOUGH SEDGE EMERGENT WETLAND (EL. 16-20) Total acreage: 0.87ac	
Latin Name	Common Name	Quantity
PLUGS		
<i>Carex obnupta</i>	Slough Sedge	2371
<i>Eleocharis palustris</i>	Common spikerush	2371
<i>Juncus ensifolius</i>	Daggerleaf rush	2371
	SITKA WILLOW SCRUB-SHRUB WETLAND ALONG SEEPS Total acreage: 0.02ac	
Latin Name	Common Name	Quantity
SHRUB STAKES		
<i>Salix sitchensis</i>	Sitka Willow	218
	OUTLET CHANNEL / BENCH SCRUB-SHRUB WETLAND(EL.14-15) Total acreage: 1.04ac	
Latin Name	Common Name	Quantity
SHRUBS		
<i>Cornus sericea ssp. sericea</i>	Red-osier Dogwood	2832
SHRUB STAKES		
<i>Salix fluviatilis</i>	Columbia River Willow	8494
	ISLAND RIPARIAN FOREST (EL. 21.5-24) Total acreage: 0.28ac	
Latin Name	Common Name	Quantity
TREES		
<i>Crataegus douglasii</i>	Black Hawthorn	41
<i>Rhamnus purshiana</i>	Cascara	41
SHRUBS		
<i>Cornus sericea</i>	Red-osier Dogwood	130
<i>Malus fusca</i>	Western Crabapple	130
<i>Physocarpus capitatus</i>	Ninebark	130
<i>Rosa pisocarpa</i>	Swamp Rose	130
<i>Symphoricarpos albus</i>	Common Snowberry	130
	TURTLE NESTING HABITAT AREAS	SEE CIVIL PLANS

	MIXED CONIFER-DECIDUOUS UPLAND FOREST (EL 24+) Total acreage: 18.55ac	
Latin Name	Common Name	Quantity
TREES		
<i>Acer circinatum</i>	Vine Maple	296
<i>Acer marcophyllum</i>	Big-leaf Maple	296
<i>Cornus nuttallii</i>	Pacific Dogwood	296
<i>Prunus emarginata</i>	Bitter Cherry	296
<i>Pseudotsuga menziesii</i>	Douglas Fir	296
<i>Thuja plicata</i>	Western Red Cedar	296
<i>Tsuga heterophylla</i>	Western Hemlock	296
SHRUBS		
<i>Berberis aquifolium</i>	Tall Oregon Grape	1815
<i>Corylus cornuta</i>	Hazelnut	1815
<i>Oemleria cerasiformis</i>	Indian Plum	1815
<i>Philadelphus lewisii</i>	Mock Orange	1815
<i>Symphoricarpos albus</i>	Common Snowberry	1815
<i>Ribes sanguineum</i>	Red Currant	1815
	UPLAND FOREST SHRUBS ONLY (EL 24+) Total acreage: 0.37ac	
Latin Name	Common Name	Quantity
SHRUBS		
<i>Berberis aquifolium</i>	Tall Oregon Grape	167
<i>Corylus cornuta</i>	Hazelnut	167
<i>Holodiscus discolor</i>	Ocean Spray	167
<i>Philadelphus lewisii</i>	Mock Orange	167
<i>Symphoricarpos albus</i>	Common Snowberry	167
<i>Ribes sanguineum</i>	Red Currant	167
	OAKS	
Latin Name	Common Name	Quantity
TREES		
<i>Quercus garryana</i>	Oregon White Oak	10

- PLANTING NOTES**
- EXISTING CONTOURS SHOWN COMBINE CONTOURS FROM LIDAR AND SURVEY AREAS. TRANSITIONS BETWEEN THESE DATA SOURCES MAY RESULT IN IRREGULAR AREAS SHOWN ON PLANS; FIELD VERIFY
 - PLANTING AREAS WILL BE STAKED IN THE FIELD BY A QUALIFIED WETLAND SPECIALIST PRIOR TO COMMENCEMENT OF PLANTING OPERATIONS
 - UPLAND FOREST (SHRUB ONLY) AREA CLEARING AND PLANTING TO OCCUR AT THE DIRECTION OF THE OWNER'S REPRESENTATIVE
 - VERIFY PLANTING AREA ACREAGES AND PLANT QUANTITIES
 - PLANT AT THE FOLLOWING SPACING UNLESS OTHERWISE INDICATED ON PLANS:
TREES AT 10' O.C.
SHRUBS AT 4' O.C.
TREE LIVE STAKES AT 10' O.C.
SHRUB LIVE STAKES AT 2' O.C.
PLUGS AT 2' O.C.
 - WHERE EXISTING NATIVE VEGETATION REMAINS AFTER CLEARING AND GRUBBING HAS BEEN COMPLETED, ADJUST PLANTING QUANTITIES BASED ON THE PREVIOUSLY STATED SPACING REQUIREMENTS AND THE QUANTITY OF REMAINING NATIVE PLANTS.
 - IN ALL NON-GRADED AREAS WITH EXISTING VEGETATION, CLEAR AND GRUB NON-NATIVE VEGETATION, RETAIN NATIVE VEGETATION, AND PLANT IN NON-VEGETATED (OPEN) AREAS. SEE SHEET P2, "CLEARING AND GRUBBING PLAN"
 - PLACE LARGE WOODY DEBRIS, INCLUDING ADDITIONAL DOWNED TREES AND BRUSH PILES (NOT SHOWN ON PLANS), IN UPLAND AREAS AT 3-4 PIECES PER ACRE. VERIFY DESIGN AND PLACEMENT LOCATIONS WITH OWNER'S REPRESENTATIVE
 - PLANT OAKS OUTSIDE OF CANOPIES OF EXISTING TREES; FIELD ADJUST PLANTING LOCATIONS AS NECESSARY
 - PLANT SIZING TO BE AS FOLLOWS:
TREES: BARE ROOT 18-24"
SHRUBS: BARE ROOT 18-24"
PLUGS: 2"
LIVE STAKES (TREE AND SHRUB): 2'-3'
 - SEE SHEET P6 FOR PLANTING DETAILS
 - SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION
 - NO HERBIVORY PROTECTION IS SPECIFIED IN THESE PLANS. FUTURE HERBIVORY PROTECTION MAY BE NEEDED DURING MAINTENANCE PERIOD. COORDINATE WITH OWNER'S REPRESENTATIVE



PLANTING LEGEND AND NOTES

RINEARSON NATURAL AREA RESTORATION PROJECT
100% DESIGN SUBMITTAL

DESIGNED BY: TS/AMM
DRAWN BY: AMM
CHECKED BY: TS/AMM
DATE: 6/29/16
JOB NO.: 00030

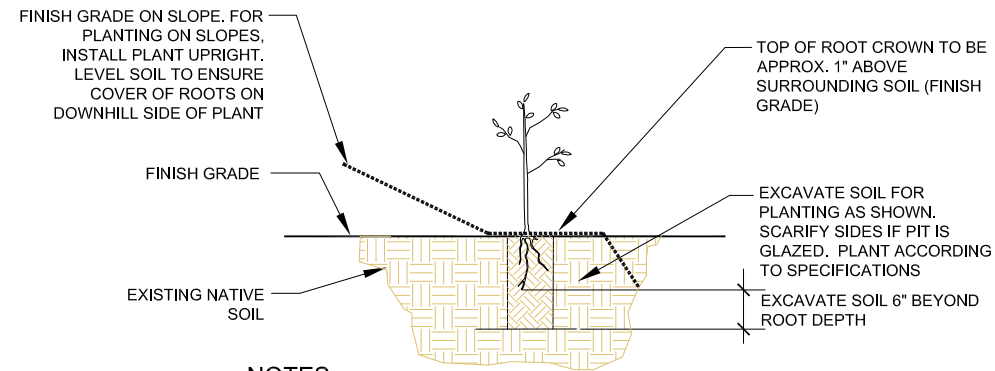


PLANTING DETAILS

RINEARSON NATURAL AREA RESTORATION PROJECT
100% DESIGN SUBMITTAL

TS/AMM
AMM
TS/AMM

DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 6/29/16
JOB NO.: 00030

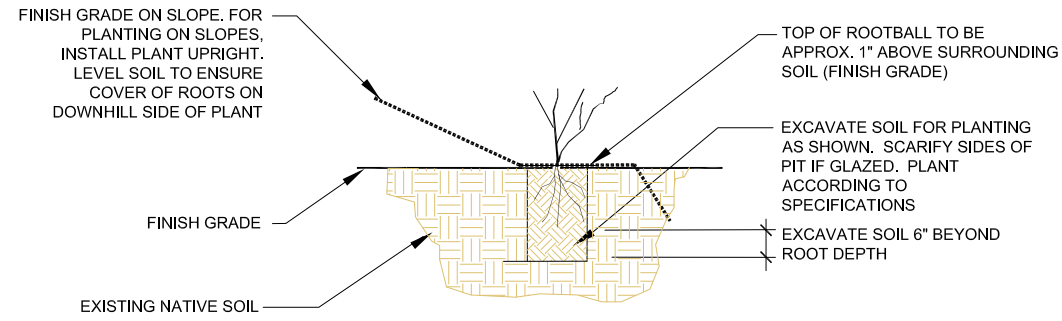


NOTES:

1. MAKE PLANTING HOLE LARGE ENOUGH TO ONLY ACCOMMODATE DIVISION AND ROOTS
2. ENSURE PLANTING HOLE IS DEEP ENOUGH TO AVOID CRIMPING OF ROOTS
3. DO NOT OVER-EXCAVATE FOR PLANTING
4. TAMP SOIL AROUND AND OVER ROOTS WITHOUT CRUSHING OR DAMAGING PLANT OR ROOTS
5. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION

1 BARE ROOT TREE PLANTING

NOT TO SCALE

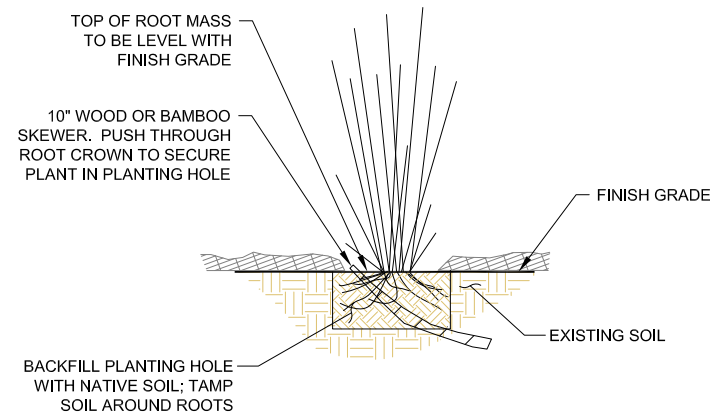


NOTES:

1. MAKE PLANTING HOLE LARGE ENOUGH TO ONLY ACCOMMODATE DIVISION AND ROOTS
2. ENSURE PLANTING HOLE IS DEEP ENOUGH TO AVOID CRIMPING OF ROOTS
3. DO NOT OVER-EXCAVATE FOR PLANTING
4. TAMP SOIL AROUND AND OVER ROOTS WITHOUT CRUSHING OR DAMAGING PLANT OR ROOTS
5. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION

2 BARE ROOT SHRUB PLANTING

NOT TO SCALE

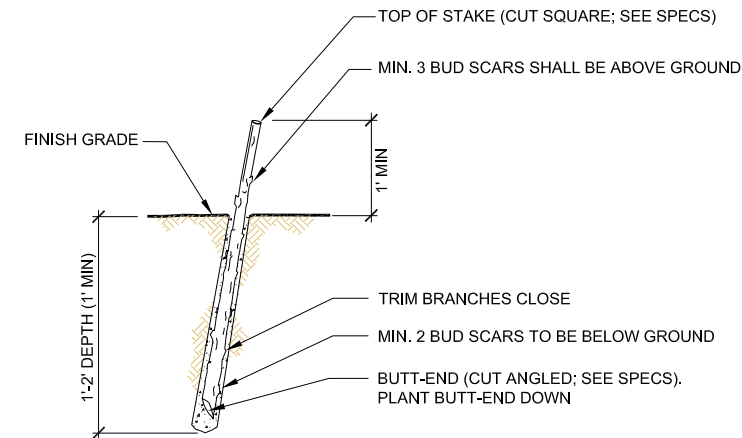


NOTES:

1. MAKE PLANTING HOLE LARGE ENOUGH TO ONLY ACCOMMODATE DIVISION AND ROOTS
2. ENSURE PLANTING HOLE IS DEEP ENOUGH TO AVOID CRIMPING OF ROOTS
3. DO NOT OVER-EXCAVATE FOR PLANTING
4. TAMP SOIL AROUND AND OVER ROOTS WITHOUT CRUSHING OR DAMAGING PLANT OR ROOTS
5. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION

3 PLUG PLANTING

NOT TO SCALE



NOTES:

1. PLANT LIVE STAKES BETWEEN NOVEMBER AND MARCH
2. SOAK STAKES FOR 24 HOURS (MIN.) PRIOR TO INSTALLATION
3. USE HEALTHY, STRAIGHT AND LIVE WOOD AT LEAST 1 YEAR OLD
4. MAKE CLEAN CUTS AND DO NOT DAMAGE STAKES OR SPLIT ENDS DURING INSTALLATION
5. CREATE PILOT HOLE (<3 INCH DIAMETER) IN NATIVE SOIL WITH PILOT BAR OR HAND AUGER
6. GENTLY PUSH CUTTING INTO LOOSENEED SOIL / PREPARED PILOT HOLE
7. BACK FILL WITH NATIVE SOIL TO ELIMINATE AIR POCKETS. TAMP THE SOIL AROUND THE STAKE
8. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION

4 LIVE STAKE INSTALLATION

NOT TO SCALE



TRAILS, FENCING, AND HABITAT AREA,
AND ACCESS CONTROL SIGNAGE

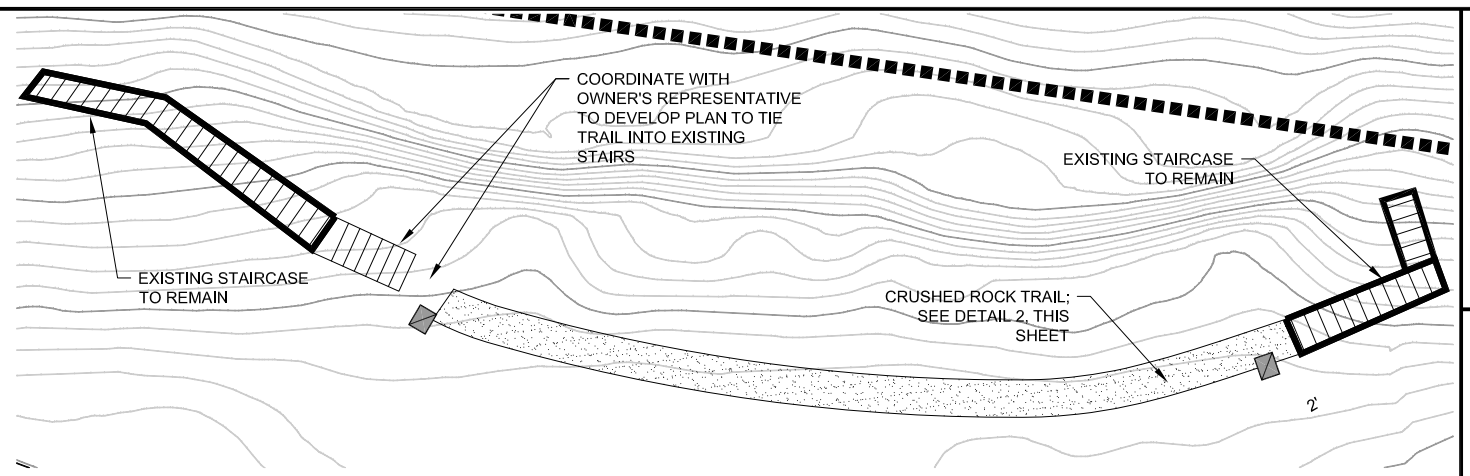
RINEARSON NATURAL AREA RESTORATION PROJECT
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DESIGNED BY: TS/AMM
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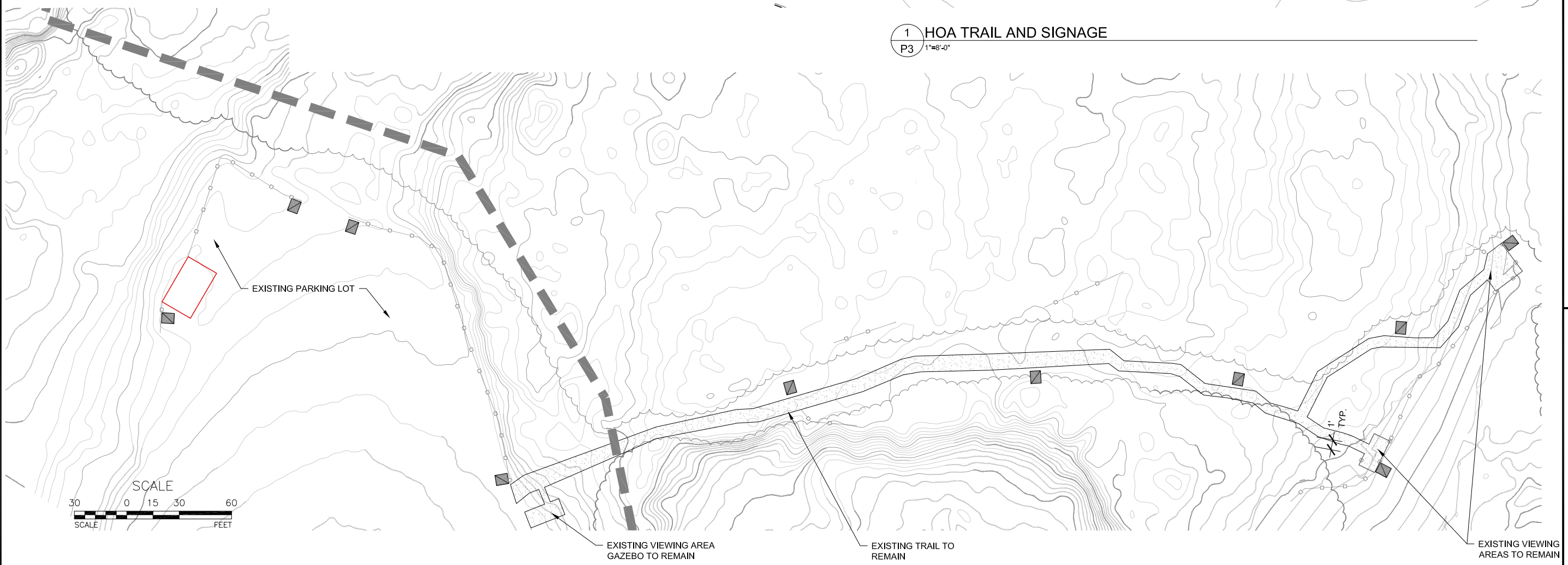
LEGEND

- PROPERTY BOUNDARY
- EXISTING TREES
- EXISTING CONTOURS; SEE CIVIL PLANS
- PROPOSED CONTOURS; SEE CIVIL PLANS
- PROPOSED HABITAT AREA / ACCESS CONTROL SIGN
- EXISTING FENCE

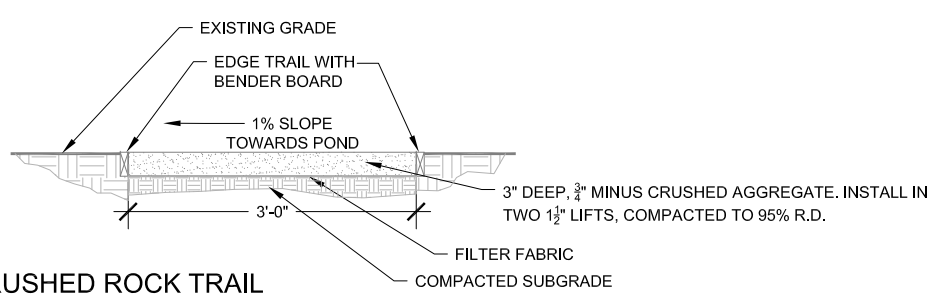
- HOA TRAIL NOTES:**
1. PLACE FILTER FABRIC UNDER CRUSHED ROCK, AND WRAP HALFWAY UP BENDER BOARD ON TRAIL SIDE OF BOARD.
 2. MATERIALS OF CONSTRUCTION FOR TIE-IN BETWEEN EXISTING STAIRCASES AND NEW TRAIL SHALL BE COMPRISED OF DURABLE MATERIALS SUCH AS CONCRETE PAVER BLOCKS OR STONE THAT CAN WITHSTAND PROLONGED EXPOSURE TO MOISTURE WITHOUT DEGRADING. WOOD MATERIALS SHALL NOT BE ACCEPTABLE.



1 HOA TRAIL AND SIGNAGE
P3 1"=8'-0"



1 PUBLIC ACCESS TRAIL FENCING AND SIGNAGE
NOT TO SCALE



2 CRUSHED ROCK TRAIL
NOT TO SCALE

HABITAT AREA
PLEASE
DO
NOT
ENTER

APPROXIMATE SIGN SIZE: 10"W X 10"H. TEXT, FONT, SIZE, AND MESSAGE TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO MANUFACTURE

- NOTES:**
1. BOLT HABITAT AREA / ACCESS CONTROL SIGNS TO FENCE POSTS WHERE SHOWN ON PLANS, BELOW TOP RAIL
 2. VERIFY SIGN PLACEMENT LOCATIONS WITH OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION
 3. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO OWNER'S REPRESENTATIVE FOR APPROVAL FOR SIGNS AND MOUNTING METHOD PRIOR TO MANUFACTURE

1 HABITAT AREA / ACCESS CONTROL SIGNAGE
NOT TO SCALE

Appendix I: Memorandum of Agreement Addendum

Appendix I: Memorandum of Agreement

FIRST ADDENDUM TO MEMORANDUM OF AGREEMENT BETWEEN THE NATURAL RESOURCE TRUSTEES AND RINEARSON NATURAL AREA, LLC FOR PROVIDING TECHNICAL ASSISTANCE RELATED TO HABITAT RESTORATION PROJECTS TOWARD FUTURE SETTLEMENT OF NATURAL RESOURCE DAMAGE CLAIMS AT THE PORTLAND HARBOR CERCLA SITE (Rinearson Natural Area Restoration Site)

This First Addendum to Memorandum of Agreement (“First Addendum”), dated for reference purposes only as _____, 2018, is entered into by and between RINEARSON NATURAL AREA, LLC, an Oregon limited liability company (“Restoration Implementer”) and the NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (“NOAA”), on behalf of the Department of the Commerce, the UNITED STATES FISH AND WILDLIFE SERVICE (“USFWS”), on behalf of the Department of the Interior, the OREGON DEPARTMENT OF FISH AND WILDLIFE (“ODFW”), the CONFEDERATED TRIBES OF THE GRAND RONDE COMMUNITY OF OREGON, the CONFEDERATED TRIBES OF SILETZ INDIANS, the CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION, the CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION OF OREGON, and the NEZ PERCE TRIBE (collectively the “Trustee Council”). The Restoration Implementer and the Trustee Council are collectively referred to herein as the “Parties.” This First Addendum sets forth the agreement of the Parties regarding the establishment, use, operation and maintenance of the Rinearson Natural Area Restoration Site (the “Restoration Site”). The effective date of this First Addendum is the date of the signature of the Restoration Implementer and one member of the Trustee Council.

Recitals

- A. The Trustee Council is carrying out a damage assessment for the Portland Harbor Superfund Site and anticipates bringing claims for injuries to natural resources under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 U.S.C. §§ 9601, et seq.
- B. The Trustee Council and Restoration Implementer entered into the “Memorandum of Agreement between the Trustee Council and Rinearson Natural Area, LLC for Providing Technical Assistance Related to Habitat Restoration Projects toward Future Settlement of Natural Resource Damage Claims at the Portland Harbor CERCLA Site” effective September 26, 2013 (the “Original Memorandum”), wherein they agreed to use their collaborative efforts to identify, design and assess the value of one or more habitat restoration projects in or near the Portland Harbor Superfund Site. The Original Memorandum set forth a process to develop a forecast settlement credits value and final settlement credit value for a habitat restoration project.

C. Restoration Implementer controls certain real property, consisting of approximately 33.156 acres (the “Restoration Site”), located in the City of Gladstone and Clackamas County, Oregon. The location of the Restoration Site is shown on “Exhibit A, Property” attached hereto and incorporated herein by this reference.

D. Pursuant to the terms of the Original Memorandum, Restoration Implementer and the Trustee Council have determined that the Restoration Site is a suitable habitat restoration project. Based upon such determination, Restoration Implementer desires to develop the Rinearson Natural Area restoration project (the “Restoration Project”) on the Restoration Site.

E. Consistent with the terms of the Original Memorandum, Restoration Implementer intends to develop the Restoration Site for the purpose of creating credits (“Credits” or “DSAYs”) for sale to one or more potentially responsible parties (PRPs) seeking to offset its/their liability for damages resulting from injury to natural resources in the Portland Harbor Superfund Site.

F. In coordination with the Trustee Council, Restoration Implementer has developed the “Rinearson Natural Area Habitat Development Plan” dated _____, 2018 for the Restoration Project (the “Rinearson HDP”) and will perform the obligation described therein.¹

G. The Trustee Council agrees that the Restoration Project fits within the parameters set forth in the Portland Harbor Programmatic EIS and Restoration Plan and that the Restoration Project, if implemented pursuant to the Rinearson HDP, will provide Credits that may be proposed as part of a natural resource damages (“NRD”) settlement, subject to approval by all appropriate public officials, public review and comment and court approval.

H. The purpose of this First Addendum is to set forth the Trustee Council’s approval of the Rinearson HDP and agreement that the Restoration Implementer may issue Credits for the ecological value produced from Restoration Implementer’s implementation of the Restoration Project in accordance with such HDP and subject to the terms of this First Addendum.

NOW, THEREFORE, in consideration of the foregoing recitals, and the mutual covenants contained herein, the Parties agree as follows:

Agreement

1. Approval of the Rinearson HDP. The Trustee Council hereby approves the Rinearson HDP.
2. Restoration Project Implementation. The Restoration Project shall be implemented in accordance with the Rinearson HDP. Such implementation shall include, without limitation, recording a deed restriction, obtaining all necessary permits for the Restoration Project, constructing the Restoration Project, recording the Conservation Easement to provide

¹ A project-specific long-term stewardship plan will be developed and approved after the Restoration Project is constructed and prior to the end of the Performance Period.

permanent protection of the ecological values of the Restoration Site, providing all real estate assurances and financial assurances required under the Rinearson HDP, and maintaining and monitoring the Restoration Project in accordance with the Rinearson HDP.

3. DSAY Credits. The number of DSAY Credits forecasted for the Restoration Project (“forecast settlement credits value”) shall be as provided in the Credit Release Schedule attached as Appendix G-1 to the Rinearson HDP. Subject to the Original Memorandum, the Trustee Council may adjust the forecast settlement Credits value upward or downward based on a number of factors.
4. DSAY Availability. The DSAYs shall be available for use, transfer and/or sale in accordance with the Credit Release Schedule contained in Appendix G-1 of the Rinearson HDP.
5. Settlement Agreements. The Parties recognize that the terms of any NRD settlement may include additional terms or assurances that are not part of this First Addendum. The Parties agree that if requested by the Trustee Council, the Restoration Implementer will be a party to any NRD settlement accepting the Credits purchased by a PRP, with the understanding that the Restoration Implementer’s participation in the settlement will be limited to matters relating to the credits purchased by the PRP and the Restoration Implementer will have the right to review and approve those portions of the consent decree or settlement agreement related to the Restoration Implementer.
6. Limitation. Nothing in this First Addendum shall be construed as obligating the Trustee Council, their officers, agents or employees, to expend any funds in excess of appropriations authorized by law. Use of DSAY Credits to offset or resolve a PRP’s liability for damages resulting from injury to natural resources in the Portland Harbor Superfund Site can only occur via the entry of a Consent Decree. The decision to enter into a Consent Decree with any given PRP involves enforcement discretion on the part of the Trustees and the United States Department of Justice, and any Consent Decree also is predicated upon successful settlement discussions involving the Trustees, the United States Department of Justice and the PRP. Nothing in the Original Memorandum or this First Addendum limits the enforcement discretion of the Trustees or the United States Department of Justice, nor do those documents require that a Consent Decree with any particular PRP use DSAY Credits rather than other types of consideration (such as cash or a restoration project constructed by the PRP) that are used to resolve the NRD liabilities of PRPs.
7. Ratification. The Parties agree that, except as provided in this First Addendum, the Original Memorandum is ratified, affirmed and remains in full force and effect and is incorporated herein by this reference.
8. Counterparts. This First Addendum may be executed in multiple counterparts, each of which shall be deemed an original, but all of which, together, shall constitute one and the same instrument.
9. Electronic Transmittals. The Parties agree that if this First Addendum is transmitted

electronically, the electronic transmittal of the original execution signatures shall be treated as original signatures and given the same legal effect as an original signature.

10. Notices. Any notices under this First Addendum shall be in writing and shall be effective and deemed received upon the earliest of (a) the actual receipt of the same by personal delivery or otherwise, (b) one (1) business day after being deposited with a nationally recognized overnight courier service addressed as specified below, or (c) three (3) business days after being deposited in the United States mail addresses as specified below. Rejection or other refusal to accept or the inability to deliver because of changed address of which no notice was given as herein required shall be deemed to be receipt of the notice sent. Either Party may change its address by providing written notice to the other Party.

To Trustee Council:

Restoration Center
National Marine Fisheries Service
Oregon Field Office NOAA
1201 NE Lloyd Blvd.
Portland, OR 97232-2182
Attn: Megan Callahan-Grant

To Rinearson Natural Area, LLC:

Rinearson Natural Area, LLC
c/o Falling Springs, LLC
6243 River Road, Suite 7
Richmond, Virginia 23229
Attn: Robert J. Proutt, Jr.

11. Dispute Resolution. Any dispute, controversy or claim arising out of or relating to this First Addendum, the Original Memorandum, the HDP or its incorporated appendices, including any dispute relating to interpretation of or performance thereunder ("Dispute"), shall be resolved in the manner set forth below (the "Dispute Resolution Procedures"):

If a violation is not cured within thirty (30) days after receipt of written notice and demand, or if the cure reasonably requires more than thirty (30) days to complete and there is failure to begin the cure within the thirty-day period or failure to continue diligently to complete the cure, the Parties shall first engage in the following dispute resolution process to resolve any disputes arising related to the violation and cure. The Restoration Implementer, the Trustee Council or the designee of the Trustee Council shall issue a written Notice of Deficiencies to all Parties, detailing the claimed deficiencies concerning the violation and cure. The Notice of Deficiencies shall identify a higher-level administrative officer within the issuing Party's organization who shall represent the Party in the dispute resolution process ("Dispute

Resolution Representative"). The Notice of Deficiencies shall include the Dispute Resolution Representative's contact information. Within fourteen (14) days of the receipt of the Notice of Deficiencies, the remaining Parties shall identify corresponding Dispute Resolution Representatives within their respective organizations and communicate to schedule a joint conference to be held at the earliest opportunity. The Dispute Resolution Representatives shall engage in a reasonable, good-faith effort to review the dispute and decide upon a mutually agreeable cure, which shall be diligently implemented.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK;
SIGNATURES APPEAR ON THE FOLLOWING PAGES]

IN WITNESS WHEREOF, the Parties hereto have executed this First Addendum as of the dates set forth on the following page.

FOR DEVELOPER:

Rinearson Natural Area, LLC

By: 

Name: Robert J. Proutt, Jr.

Title: Manager

Date: 2/28/19

FOR THE PORTLAND HARBOR NATURAL RESOURCE TRUSTEE COUNCIL

Confederated Tribes of the Grand Ronde Community of Oregon

By: _____

Date: _____

Confederated Tribes of the Siletz Indians

By: _____

Date: _____

Nez Perce Tribe

By: _____

Date: _____

Confederated Tribes of the Umatilla Indian Reservation


By: _____

Date: _____

IN WITNESS WHEREOF, the Parties hereto have executed this First Addendum as of the dates set forth on the following page.

FOR DEVELOPER:

Rinearson Natural Area, LLC

By: 

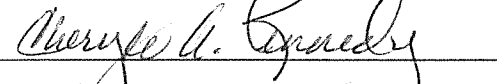
Name: Robert J. Proutt, Jr.

Title: Manager

Date: 2/28/19

FOR THE PORTLAND HARBOR NATURAL RESOURCE TRUSTEE COUNCIL

Confederated Tribes of the Grand Ronde Community of Oregon

By: 

Date: 4-1-19

Confederated Tribes of the Siletz Indians

By: _____

Date: _____

Nez Perce Tribe

By: _____

Date: _____

Confederated Tribes of the Umatilla Indian Reservation

By: _____

Date: _____

IN WITNESS WHEREOF, the Parties hereto have executed this First Addendum as of the dates set forth on the following page.

FOR DEVELOPER:

Rinearson Natural Area, LLC

By: _____

Name: Robert J. Proutt, Jr.

Title: Manager

Date: _____

FOR THE PORTLAND HARBOR NATURAL RESOURCE TRUSTEE COUNCIL

Confederated Tribes of the Grand Ronde Community of Oregon

By: _____

Date: _____

Confederated Tribes of the Siletz Indians

By: *Victoria Sigley*

Date: 1/25/19

Nez Perce Tribe

By: _____

Date: _____

Confederated Tribes of the Umatilla Indian Reservation

By: _____

Date: _____

IN WITNESS WHEREOF, the Parties hereto have executed this First Addendum as of the dates set forth on the following page.

FOR DEVELOPER:

Rinearson Natural Area, LLC

By: _____

Name: Robert J. Proutt, Jr.

Title: Manager

Date: _____

FOR THE PORTLAND HARBOR NATURAL RESOURCE TRUSTEE COUNCIL

Confederated Tribes of the Grand Ronde Community of Oregon

By: _____

Date: _____

Confederated Tribes of the Siletz Indians

By: _____

Date: _____

Nez Perce Tribe

By:  _____


Date: 2-1-19 _____

Confederated Tribes of the Umatilla Indian Reservation

By: _____

Date: _____

Confederated Tribes of the Warm Springs Indian Reservation of Oregon

By: 

Date: 1-16-19

Oregon Department of Fish and Wildlife

By: _____

Date: _____

U.S. Department of the Interior

By: _____

Date: _____

National Oceanic and Atmospheric Administration

By: _____

Date: _____

Confederated Tribes of the Warm Springs Indian Reservation of Oregon

By: _____

Date: _____

Oregon Department of Fish and Wildlife

By: *Teresa Smith*

Date: 01-03-19

U.S. Department of the Interior

By: _____

Date: _____

National Oceanic and Atmospheric Administration

By: _____

Date: _____

Confederated Tribes of the Warm Springs Indian Reservation of Oregon

By: _____

Date: _____

Oregon Department of Fish and Wildlife

By: _____

Date: _____

U.S. Department of the Interior

By: *Mary M. [Signature]*

Date: *11 March 2019*

National Oceanic and Atmospheric Administration

By: _____

Date: _____

Confederated Tribes of the Warm Springs Indian Reservation of

Oregon By: _____

Date: _____

Oregon Department of Fish and Wildlife

By: _____

Date: _____

U.S. Department of the Interior

By: _____

Date: _____

National Oceanic and Atmospheric Administration

By: .1404285188 Digitally signed by
KELLY.CHAUNCEY.THOMAS.1404285188
Date: 2018.12.19 14:51:06 -05'00'

Date: December 19, 2018

Appendix J: Memorandum of Agreement

MEMORANDUM OF AGREEMENT BETWEEN THE NATURAL RESOURCE TRUSTEES AND RINEARSON NATURAL AREA, LLC FOR PROVIDING TECHNICAL ASSISTANCE RELATED TO HABITAT RESTORATION PROJECTS TOWARD FUTURE SETTLEMENT OF NATURAL RESOURCE DAMAGE CLAIMS AT THE PORTLAND HARBOR CERCLA SITE

THIS MEMORANDUM OF AGREEMENT (“MOA”) is made and entered into by and among the National Oceanic and Atmospheric Administration (“NOAA”) on behalf of the Department of Commerce, the United States Fish and Wildlife Service (“USFWS”) on behalf of the Department of the Interior, the Oregon Department of Fish and Wildlife, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe (collectively, “the Trustees”) and Rinearson Natural Area, LLC (“Developer”) (together, “the Parties”). The effective date of this MOA is the date of the signature of Developer and one Trustee.

RECITALS

WHEREAS, the Trustees are carrying out a damage assessment for the Portland Harbor Superfund site (“Site”), and anticipate bringing claims for injuries to natural resources under the Comprehensive Environmental Response Compensation and Liability Act, 42 USC § 9601, *et seq.* (“CERCLA”), the Oil Pollution Act, 33 U.S.C. § 3701 *et seq.* and other applicable laws and regulations; and

WHEREAS, the Parties desire to facilitate the creation of habitat in the Restoration Focus Area in advance of the Trustees’ completion of a damage assessment or the filing of actions against liable parties; and

WHEREAS, the Parties recognize that the terms of any natural resource damages (“NRD”) settlement, including any restoration project the Trustees propose as part of the settlement, must be subject to public review and comment and court approval, and therefore the Trustees can make no final determination to accept a restoration project prior to entering into a settlement agreement; and

WHEREAS, the Parties agree that, if a habitat restoration project developed pursuant to this MOA is included in an NRD settlement agreement, it is appropriate to credit the ecological value produced by the project prior to entering into the settlement agreement against the liability of the settling party or parties who were responsible for developing and/or funding the development of the project; and

WHEREAS, Developer is willing to develop one or more habitat restoration projects in the Restoration Focus Area with the intention of marketing the ecological value credits produced by such project(s) to one or more parties liable for NRD claims at the Site to be potentially used by such party or parties to offset some or all of their liability in settlements with the Trustees; and

WHEREAS, the Parties desire to work collaboratively to design and assess the value of one or more habitat restoration projects in the Restoration Focus Area;

NOW, THEREFORE, in consideration of the foregoing recitals the Parties mutually agree as follows:

AGREEMENT

1. Definitions

1.1 **Project Baseline Condition.** Solely for the purposes of this MOA, the “Project Baseline Condition” shall be the habitat conditions at the location of a habitat restoration project taking into account remedial measures that are, or are reasonably anticipated to be, required by the U.S. Environmental Protection Agency under CERCLA.

1.2 **Covered Projects.** “Covered Projects” shall refer to those habitat restoration projects as to which the Parties collaborate on project design and establishment of Forecast Settlement Credit Value pursuant to the terms of this MOA.

1.3 **Forecast Settlement Credits Value.** “Forecast Settlement Credits Value” shall be a determination of the value a habitat restoration project subject to this MOA is expected to generate taking into account the project’s anticipated habitat benefits beyond the Project Baseline Condition. Forecast Settlement Credits Value will be estimated based on discounted service acre years (“DSAYs”), or such other measurement of value that the Trustees employ for determining NRD for the Site and pursuing claims against liable parties for such damages.

1.4 **Technical Assistance.** “Technical Assistance” shall mean the provision by the Trustees of assistance to Developer in the evaluation, design and planning of Site area habitat restoration projects and the determination of Forecast Settlement Credits Value for such restoration projects. Technical Assistance shall include review and evaluation of proposed projects by Trustee technical and legal representatives as needed.

1.5 **Final Settlement Credits Value.** “Final Settlement Credits Value” shall be the value of a habitat restoration project that will be recognized as offsetting some or all of a party’s NRD liability in a formal settlement agreement.

1.6 **Potentially Liable Party.** “Potentially Liable Party” shall mean any party identified by the Trustees as having potential NRD legal liability arising from releases of hazardous substances at or to the Site.

1.7 **Restoration Focus Area.** “Restoration Focus Area” includes the Portland Harbor Superfund study area and the Broader Focus Area defined by the Trustee Council.

2. Collaboration on Habitat Project Design and Settlement Credits Value Assessment

2.1 Site Habitat Project Evaluations. The Trustees will collaborate with Developer in evaluating options for potential habitat restoration projects located in the Restoration Focus Area. Technical Assistance will be provided in an effort to maximize the ecological services of habitat restoration projects and the consistency of such projects with Trustee goals and responsibilities.

2.2 Payment of Trustee Technical Assistance Costs. Developer will reimburse the Trustees for the cost of Technical Assistance provided by the Trustees at Developer's request. In any future actions for or settlements of NRD claims with respect to the Site, the Trustees will not seek to recover any Technical Assistance costs paid by Developer pursuant to this MOA.

2.3 Billing Payment Procedures for Trustee Technical Assistance. Developer shall pay the cost of Technical Assistance annually on a projected basis. The projected cost of providing technical assistance between June 2013 and May 2014 is \$48,720.55 (see Attachment A). Developer shall make an initial payment of \$28,720.55 to the Trustees within 30 days of the signing of this MOA by Developer and one Trustee. Payments will be made to the individual Trustees according to the amounts listed in the budget per the payment instructions (see Attachment B). The Trustees shall have no obligation to begin providing Technical Assistance prior to receiving the initial payment. The Developer shall make a second payment of \$20,000 for the final six months of the projected annual budget period on or before March 1, 2014. However, if the Trustees elect to provide Technical Assistance prior to the effective date of this MOA, Developer will reimburse those costs as part of the initial payment. On an annual basis beginning one year after the effective date of this MOA, the Trustees will provide Developer with an invoice detailing the Technical Assistance work performed prior to that date (or, for subsequent invoices, since the date of the prior invoice) and the charges for such work, and detailing the Technical Assistance work the Trustees project performing during the succeeding year and the projected charges for such work. Within 30 days after the date of each such invoice, Developer shall pay the Trustees' projected costs, less any amounts paid previously that have not been expended by the Trustees. In the event that any Trustee, Trustee representative or Trustee contractor has expended 80% of its projected annual budget, the Trustee Council will notify Developer and the parties will meet within two weeks to discuss the projected tasks remaining that year, whether sufficient funding is available to conduct the projected tasks and if not, what amount of additional funding is necessary to finish projected tasks. Developer is under no obligation to provide additional funding to the Trustees beyond the projected budget, and no Trustee, Trustee representative or contractor is obligated to conduct additional work under this MOA in the absence of additional funding if needed.

3. Establishment and Use of Settlement Credits Value

3.1 Identification of Covered Projects and Establishment of Forecast Settlement Credits Values. The Parties shall jointly identify one or more proposed habitat restoration projects as Covered Projects under the terms of this MOA. The Parties shall jointly agree on a

proposed design for each Covered Project, and shall in good faith meet and discuss the Forecast Settlement Credits Value for each Covered Project. If and when the Parties agree on the Forecast Settlement Credits Value of a Covered Project, that value shall be documented in written form by the Trustees and conveyed to Developer.

3.2 Future Adjustments to Credit Amounts. Prior to entering into any future NRD settlement in which the Trustees would propose to apply credits from a Covered Project, the Trustees and Developer shall in good faith meet and review the results of performance monitoring for each Covered Project and determine a Final Settlement Credits Value for each. The Trustees will allow for an upward adjustment from the Forecast Settlement Credits Value that has previously been established under paragraph 3.1 of this MOA, in the following circumstances: 1) The results of performance monitoring for the affected Covered Project demonstrate the project has produced or is expected to produce greater ecological benefits than were estimated in developing the Forecast Settlement Credits Value; 2) the Trustees' protocols for the evaluation of habitat restoration projects change such that a greater Final Settlement Credits Value would be available under the new protocols; 3) additional habitat is planned or developed by Developer or others in the vicinity of a Covered Project such that a greater Final Settlement Credits Value should be available under the Trustees' protocols; or 4) any other circumstances under which Developer would have obtained a greater Final Settlement Credits Value for a Covered Project had Developer delayed working with the Trustees on the establishment of a Forecast Settlement Credit Value for that project. The Trustees will recognize a Final Settlement Credits Value that is lower than the Forecast Settlement Credits Value in the following circumstances: 1) The results of performance monitoring for the Covered Project demonstrate that the project has produced or is expected to produce lower ecological benefits than were estimated in developing the Forecast Settlement Credits Value; 2) remedial actions, development actions or other activities are planned or have occurred in the vicinity of a Covered Project such that a lower Final Settlement Credits Value should be available under the Trustees' protocols; or 3) a party has previously received credit for all or a portion of a Covered Project against environmental or habitat mitigation requirements under federal, state or local laws or ordinances or against NRD liability in another settlement agreement.

3.3 Further Collaboration. The Parties recognize that additional collaboration will be necessary to develop entitlement conditions for Covered Projects, including, but not limited to, real estate assurances (*e.g.*, conservation easement, deed restrictions), financial assurances (*e.g.*, performance bonds), a monitoring and stewardship protocol, and the applicability, sale and transfer of credits to Potentially Liable Parties. Some or all of such additional collaboration would require an addendum to this MOA or a separate MOA.

3.4 Effect of MOA on Natural Resource Damage Assessment Process. This MOA and the Parties' actions or determinations pursuant to this MOA are not intended to prejudice or affect the course of or obviate the need for the Trustees' natural resource damage assessment process for the Site.

4. Miscellaneous

4.1 Modifications. The Parties may modify the terms of this MOA by mutual written

agreement signed by authorized representatives of the Parties.

4.2 No Admission of Liability; No Release of Non-Parties; and No Third Party Beneficiaries. This MOA shall not constitute nor shall it be used as evidence of any admission of law or fact, or a waiver of any right or defense by any Party, except as expressly set forth in this MOA. The Parties do not admit to any fact or to any liability under federal, state, or local law or regulation, and no part of this MOA shall constitute such an admission. This MOA is not intended to, nor shall it, release, discharge or affect any rights or causes of action that any of the Parties may have against any other person or entity, and each of the Parties reserves all such rights. This MOA is neither expressly nor impliedly intended for the benefit of any third party, and is neither expressly nor impliedly enforceable by any third party, including, but not limited to, local, state and federal governments and/or agencies. Nothing in this MOA is or shall be construed to be a waiver of sovereign immunity by any of the Trustees.

4.3 Limitation. Nothing in this MOA shall be construed as obligating the Trustees, their officers, agents or employees, to expend any funds in excess of appropriations authorized by law.

4.4 Counterparts. This MOA may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

(Signatures on the following page)

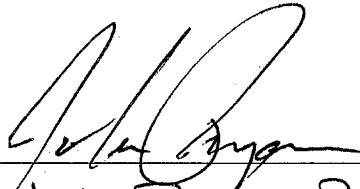
SIGNATURES

FOR DEVELOPER

By: _____

Printed Name: _____

Date: _____



John Runyon, Principal, Rinearson Natural Area, LLC
9/26/2013

FOR THE PORTLAND HARBOR NATURAL RESOURCE TRUSTEE COUNCIL

Confederated Tribes of the Grand Ronde Community of Oregon

By: _____

Date: _____

Confederated Tribes of Siletz Indians

By: _____

Date: _____

Nez Perce Tribe

By: _____

Date: _____

Confederated Tribes of the Umatilla Indian Reservation

By: _____

Date: _____

Confederated Tribes of the Warm Springs Indian Reservation of Oregon

By: _____

Date: _____

SIGNATURES

FOR DEVELOPER

By: _____

Printed Name: _____

Date: _____

FOR THE PORTLAND HARBOR NATURAL RESOURCE TRUSTEE COUNCIL

Confederated Tribes of the Grand Ronde Community of Oregon

By: Josh Hiff _____

Date: 9-26-13 _____

Confederated Tribes of Siletz Indians

By: _____

Date: _____

Nez Perce Tribe

By: _____

Date: _____

Confederated Tribes of the Umatilla Indian Reservation

By: _____

Date: _____

Confederated Tribes of the Warm Springs Indian Reservation of Oregon

By: _____

Date: _____

SIGNATURES

FOR DEVELOPER

By: _____

Printed Name: _____

Date: _____

FOR THE PORTLAND HARBOR NATURAL RESOURCE TRUSTEE COUNCIL

Confederated Tribes of the Grand Ronde Community of Oregon

By: _____

Date: _____

Confederated Tribes of Siletz Indians

By: *Robert Hyslop*

Date: *9/20/13*

Nez Perce Tribe

By: _____

Date: _____

Confederated Tribes of the Umatilla Indian Reservation

By: _____

Date: _____

Confederated Tribes of the Warm Springs Indian Reservation of Oregon

By: _____

Date: _____

SIGNATURES

FOR DEVELOPER

By: _____

Printed Name: _____

Date: _____

FOR THE PORTLAND HARBOR NATURAL RESOURCE TRUSTEE COUNCIL

Confederated Tribes of the Grand Ronde Community of Oregon

By: _____

Date: _____

Confederated Tribes of Siletz Indians

By: _____

Date: _____

Nez Perce Tribe

By:  _____

Date: 09-19-13 _____

Confederated Tribes of the Umatilla Indian Reservation

By: _____

Date: _____

Confederated Tribes of the Warm Springs Indian Reservation of Oregon

By: _____

Date: _____

SIGNATURES

FOR DEVELOPER

By: _____

Printed Name: _____

Date: _____

FOR THE PORTLAND HARBOR NATURAL RESOURCE TRUSTEE COUNCIL

Confederated Tribes of the Grand Ronde Community of Oregon

By: _____

Date: _____

Confederated Tribes of Siletz Indians

By: _____

Date: _____

Nez Perce Tribe

By: _____

Date: _____

Confederated Tribes of the Umatilla Indian Reservation

By: Les MinShosun

Date: 11-20-13

Confederated Tribes of the Warm Springs Indian Reservation of Oregon

By: _____

Date: _____

Oregon Department of Fish and Wildlife

By: 

Date: 12/10/13

U.S. Department of the Interior

By: _____

Date: _____

National Oceanic and Atmospheric Administration

By: _____

Date: _____

Oregon Department of Fish and Wildlife

By: _____

Date: _____

U.S. Department of the Interior

By: William Thorson

OCT 24 2013

Date: _____

National Oceanic and Atmospheric Administration

By: _____

Date: _____

Oregon Department of Fish and Wildlife

By: _____

Date: _____

U.S. Department of the Interior

By: _____

Date: _____

National Oceanic and Atmospheric Administration

By: Katherine A. Pease for Craig R. O'Connor

Date: 17 September 2013

Attachment A

Attachment B

PORTLAND HARBOR
Natural Resource Trustee Council



Payment Instructions

Confederated Tribes of the Grand Ronde

Attn: Michael Karnosh, Ceded Lands Program Manager
9615 Grand Ronde Road
Grand Ronde, OR 97347

Confederated Tribes of Siletz Indians

Attn: Karen Bell, Accounting Department
P.O. Box 549
Siletz, OR 97380

Confederated Tribes of the Umatilla Indian Reservation

Attn: Accounts Receivable, Finance Department
46411 Tim'ine Way
Pendleton, OR 97801

Nez Perce Tribe

Attn: Anjee Toothaker
P.O. Box 365
Lapwai, ID 83540

Confederated Tribes of the Warm Springs Reservation

Attn: Finance Department
P.O. Box C
Warm Springs, OR 97761

ODFW

Attn: Capitalina Martishev, Revenue Technician
Oregon Department of Fish and Wildlife
3406 Cherry Ave NE
Salem, OR 97303
Phone: 503-947-6177

Check payable to: "Oregon Department of Fish and Wildlife"

Reference: "Portland Harbor Rinearson MOA")

National Oceanic and Atmospheric Administration

Attn: Katherine A. Pease
Office of General Counsel, NOAA
501 W. Ocean Boulevard, Suite 4470
Long Beach, CA 90802

Check payable to: "NOAA/U.S. Department of Commerce"

Reference: "Portland Harbor/Rinearson MOA")

U.S. Department of the Interior - Instructions are attached.

The Department of Interior's National Business Center (NBC) has established procedures with the Department of Treasury to provide two electronic options for remitting payments to the Natural Resource Damage Assessment and Restoration Fund. Procedures for using these processes are attached.

The preferred electronic method is the Department of Treasury's Automated Clearing House (ACH)/Remittance Express. If your bank does not have ACH deposit transmission capabilities, then Treasury's Federal Wire (FedWire) Transfer procedure is the required alternative. Use the attached forms to assist in preparing your remittance.

All remitters are encouraged to use these electronic methods. Non-electronic remittances (checks) are acceptable as well, and should be payable to the Department of Interior and forwarded to:

**DOI Restoration Fund
NBC Division of Financial Management Services
Branch of Accounting Operations
Attn: Collection Officer
Mail Stop D-2770
7401 West Mansfield Ave.
Lakewood, CO 80235**

**Please reference "NRDA 14X5198" and the site name
on check or transmittal letter**

In order to accomplish electronic transfers, in addition to other settlement or billing information, please provide the following information to the remitter:

Preferred method of electronic transfer: Automated Clearing House (ACH)

Receiver name: DOI Restoration Fund
ALC 14010001

Receiver Tax ID Number: 53-0196949

Receiver address: 7401 West Mansfield Ave.
Mailstop D-2770
Lakewood, CO 80235

Receiver bank: Federal Reserve Bank
New York, NY
ABA # 051036706

Receiver ACH Account No.: 312024 (See Attachment I-3)

Receiver Fedwire Acct No.: Treasury NYC 021030004
(To be used only for Fedwire transfers) (See Attachment I-4)

Payment Related Data: Should at a minimum reference site location

Attachments I-3 and I-4 provide more technical specifics which can be provided to the remitter's banking institution. Questions concerning electronic deposit procedures should be directed to Melissa Zoelle at (303) 969-7299 or Trang Nguyen at (303) 969-5651.

The following information is provided to assist Remitters in giving complete and accurate data to their financial institution for use in originating Automated Clearing House payments. The industry name for the following format is CCD+.

ACH CCD+ Format

Data Element Name	Contents	Size	Position
<i>Record Type Code</i>	'6'	1	01-01
<i>Transaction Code</i>	'22'	2	02-03
<i>Receiving ABA</i>	'05103670'	8	04-11
<i>Check Digit</i>	'6'	1	12-12
<i>Account Number</i>	'312024'	17	13-29
Payment Amount		12	30-41
Identification #		13	42-54
<i>Receiver Name</i>	<i>DOI Restoration Fund</i>	22	22-76
Discretionary	N/A	2	77-78
<i>Addenda Indicator</i>	'2'	1	79-79
Trace Number	Assigned by Remitters Bank	15	80-94

ACH Addenda Record Format

Data Element Name	Contents	Size	Position
<i>Record Type Code</i>	'7'	1	01-01
<i>Addenda Type Code</i>	'05'	2	02-03
Payment Related		80	04-83
<i>Sequence Number</i>	'0001'	4	84-87
Addenda Trace	Assigned by Remitters Bank	17	88-94

The data items in bold must be provided to the bank by the Remitter. Those items bolded and italicized must be provided verbatim. The **Payment Amount** is the judgement or settlement amount being remitted; dollars and cents must be separated by a decimal point, do not use commas or any other punctuation. The **Identification Number** is the case Court Number. The **Payment Related** data should include the paying potentially responsible party(ies) name, site or case name and site location.

Federal Wire (FedWire) Transfer

The following information is provided to assist Remitters in giving complete and accurate data to their financial institution for use in originating FedWire payments (**in the event ACH is not available**). The industry name for the following format is FedWire Transfer Format.

Required Fields and Tags

Field Tag Name	Field Tag Number	Field Tag Contents
Message Disposition	(1100)	Assigned by Federal Reserve Bank
Acceptance Time Stamp	(1110)	Assigned by Federal Reserve Bank
OMAD	(1120)	Assigned by Federal Reserve Bank
IMAD	(1520)	Assigned by Remitters Bank
Amount	(2000)	
Sender FI	(3100)	Assigned by Remitters Bank
Sender Reference	(3320)	Assigned by Remitters Bank
<i>Receiver FI</i>	<i>(3400)</i>	<i>'Treasury NYC 021030004'</i>
<i>Beneficiary</i>	<i>(4200)</i>	<i>'DOI Restoration Fund ALC 14010001'</i>
Ref for Beneficiary	(4320)	
Originator	(5000)	
Originator Financial Institution	(5100)	Assigned by Remitters Bank
Orig to Beneficiary	(6000)	

The data items in bold must be provided to the bank by the Remitter. Those bolded and italicized must be provided verbatim. The **Amount** is the judgement or settlement amount being remitted; dollars and cents must be separated by a decimal point, do not use commas or any other punctuation. The **Reference for Beneficiary** is the case Court Number. **Originator** is the paying potentially responsible party(ies). **Originator to Beneficiary** should include the site or case name and site location.