

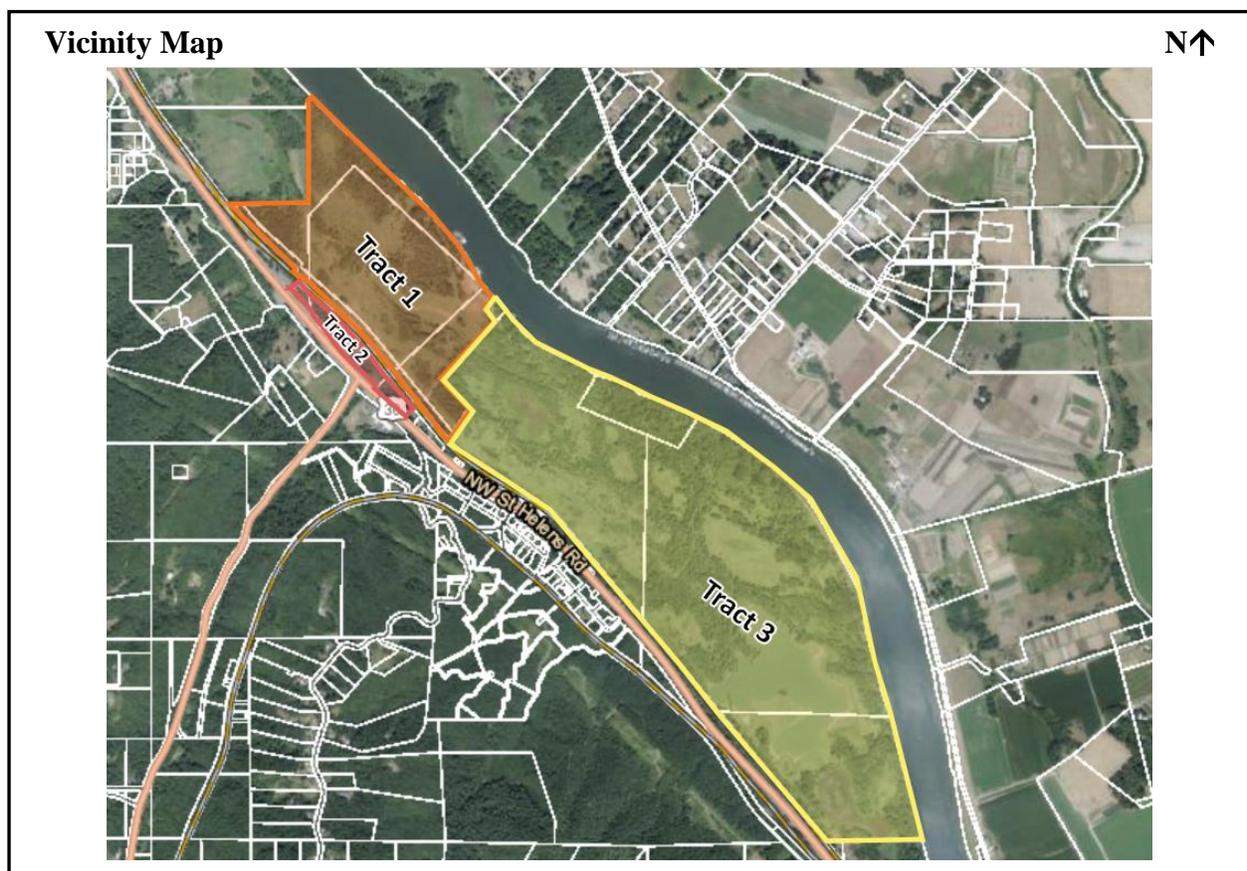
Opportunity to Appeal: An appeal requires a \$250.00 fee and must state the specific legal grounds on which it is based. To obtain appeal forms or information on the procedure, contact the Land Use Planning office at (503) 988-3043. This decision is not appealable to the Land Use Board of Appeals until all local appeals are exhausted.

Issued by: _____

By: Chris Liu, Planner

For: Carol Johnson, AICP
Planning Director

Date: Friday, May 28, 2021



Applicable Approval Criteria:

Multnomah County Code (MCC):

General Provisions: MCC 39.1515 Code Compliance and Applications, MCC 39.2000 Definitions, MCC 39.3005 Lot of Record – Generally, MCC 39.3080 Lot of Record – MUA-20

MUA-20 Zone: MCC 39.4310 Allowed Uses – (D), MCC 39.4325 Dimensional Requirements – (C), MCC 39.6850 Dark Sky Lighting Standards

Willamette River Greenway: MCC 39.5910 Uses – Greenway Permit Required, MCC 39.5925 Greenway Permit Application, MCC 39.5935 Greenway Design Plan, MCC 39.5940 Significant Wetlands

Design Review: MCC 39.8025 Design Review Plan Contents, MCC 39.8040 Design Review Criteria - (A)(1)(a), (1)(c), (4) and (7).

Comprehensive Plan Policies: Policy 5.6, Policy 5.15

Copies of the referenced Multnomah County Code sections are available by contacting our office at (503) 988-3043 or by visiting our website at <https://multco.us/landuse/zoning-codes/> under the link:

Chapter 39 - Zoning Code

Conditions of Approval

The conditions listed are necessary to ensure that approval criteria for this land use permit are satisfied. Where a condition relates to a specific approval criterion, the code citation for that criterion follows in parenthesis. Approval of this land use permit is based on the submitted written narrative(s) and plan(s). No work shall occur under this permit other than that which is specified within these documents. It shall be the responsibility of the property owner(s) to comply with these documents and the limitations of approval described herein.

1. Permit Expiration – This land use permit shall **expire** as follows:
 - a. Within two (2) years of the date of the final decision when construction has not commenced. [MCC 39.1185(B)]
 - i. For the purposes of 1.a, commencement of construction shall mean actual construction of the foundation or frame of the approved structure. For utilities and developments without a frame or foundation, commencement of construction shall mean actual construction of support structures for an approved above ground utility or development or actual excavation of trenches for an approved underground utility or development.
 - ii. For purposes of Condition 1.a, notification of commencement of construction will be given to Multnomah County Land Use Planning Division a minimum of seven (7) days prior to date of commencement. Work may commence once notice is completed. Commencement of construction shall mean actual construction of the foundation or frame of the approved structure.
 - b. Within four (4) years of the date of commencement of construction when the structure has not been completed. [MCC 39.1185(B)]
 - i. For the purposes of 1.b. completion of the structure shall mean completion of the exterior surface(s) of the structure and compliance with all conditions of approval in the land use approval.
 - ii. For the purposes of Condition 1.b.i., the property owner shall provide building permit status in support of completion of exterior surfaces of the structure and demonstrate compliance with all conditions of approval. The written notification and documentation of compliance with the conditions shall be sent to land.use.planning@multco.us. [MCC 39.1185]

Note: The property owner may request to extend the timeframe within which this permit is valid, as provided under MCC 39.1195, as applicable. The request for a permit extension must be submitted prior to the expiration of the approval period.

2. **Prior to the commencement of the proposed development**, the property owner or their representative shall:
 - a. Obtain the Erosion and Sediment Control Permit, as well as a Floodplain Development Permit, for the ground disturbance activities related to the proposed restoration project. No work may commence without their approval. [MCC 39.5015 & 39.6210]
 - b. CREST shall acknowledge in writing that they have read and understand the conditions of approval and intend to comply with them. A Letter of Acknowledgement has been provided to assist you. The signed document shall be sent to chris.liu@multco.us. [MCC 39.1170(A) & (B)]
3. **During construction**, the property owner or their representative shall ensure that:
 - a. Erosion control measures shall be installed following best management practices. Any restrictions or requirements from the Erosion and Sediment Control Permit, as well as the Floodplain Development permit, shall be followed throughout the project. [MCC 39.5935(L) & (O)]
 - b. In-water work shall be limited to the period approved by the National Marine Fisheries Service and the Oregon Dept. of Fish & Wildlife. [MCC 39.5935 (G)]
 - c. All disturbed areas shall be replanted as soon as possible following completion of the ground disturbance related to the restoration activities. Native plants / vegetation listed in the planting details included as Exhibit A.21 shall be utilized. [MCC 39.5935(J)]
4. Proposed work shall be completed in compliance with the Flood Development permit in order to maintain or enlarge the flood carrying capacity of the area.

Note: Once this decision is final, application for building permits may be made with the City of Portland. When ready to have building plans signed off by land use planning, the applicant shall complete the following steps:

1. Read your land use decision, the conditions of approval and modify your plans, if necessary, to meet any condition that states, “Prior to commencement of development...” Be ready to demonstrate compliance with the conditions.
2. Contact chris.liu@multco.us, for instructions regarding review of the conditions of approval. Please ensure that any items required under, “Prior to commencement of development...” are ready for land use planning review. If building permits are required for any of the structures, Land Use Planning must sign off on the plans and authorize the building permit before you can go to the Building Department.

Notice to Mortgagee, Lien Holder, Vendor, or Seller:

ORS Chapter 215 requires that if you receive this notice it must be promptly forwarded to the purchaser.

Findings of Fact

FINDINGS: Written findings are contained herein. The Multnomah County Code (MCC) criteria and Comprehensive Plan Policies are in **bold** font. Staff analysis and comments are identified as ‘**Staff:**’ and address the applicable criteria. Staff comments may include a conclusionary statement in *italic*.

1.0 Project Description:

Staff: Columbia River Estuary Study Taskforce (CREST) requests a Willamette River Greenway Permit and Design Review for a restoration project of the “Palensky Wildlife Area” (PWA). CREST will remove a water control structure and two undersized culverts that are fish barriers, excavate the soil to lower marsh-plain elevations, install beaver dam analogs, turtle basking structures, large wood, and replant native shrubs, trees and grasses. The project aims to restore and enhance the natural hydrology and wetlands of the PWA, which will improve the wetland functionality, stormwater infiltration, and water quality.

2.0 Property Description:

Staff: The subject tracts are located adjacent to NW St. Helens Road in west Multnomah County and are zoned MUA-20. A portion of McCarthy Creek runs through Tract 1 and a portion of Tract 2. Tract 2 contains a number of buildings/structures, but no development on the area where the creek runs. Tract 1 and 3 border the Multnomah Channel and a majority of these two tracts are dedicated to land / wildlife conservation. Tract 1 and 3 are part of the “Palensky Wildlife Area” and the “Burlington Bottoms” wetland complex.

3.0 Public Comment:

Staff: Staff mailed a notice of application and invitation to comment on the proposed application to the required parties per MCC 39.1105 (Exhibit C.3). Staff did not receive any public comments during the 14-day comment period.

4.0 General Provisions:

4.1 § 39.1515 CODE COMPLIANCE AND APPLICATIONS.

Except as provided in subsection (A), the County shall not make a land use decision approving development, including land divisions and property line adjustments, or issue a building permit for any property that is not in full compliance with all applicable provisions of the Multnomah County Zoning Code and/or any permit approvals previously issued by the County.

(A) A permit or other approval, including building permit applications, may be authorized if:

- (1) It results in the property coming into full compliance with all applicable provisions of the Multnomah County Zoning Code. This includes sequencing of permits or other approvals as part of a voluntary compliance agreement; or**
- (2) It is necessary to protect public safety; or**
- (3) It is for work related to and within a valid easement over, on or under an affected property.**

(B) For the purposes of this section, Public Safety means the actions authorized by the permit would cause abatement of conditions found to exist on the property that endanger the life, health, personal property, or safety of the residents or public. Examples of that situation include but are not limited to issuance of permits to replace faulty electrical wiring; repair or install furnace equipment; roof repairs; replace or repair compromised utility infrastructure for water, sewer, fuel, or power; and actions necessary to stop earth slope failures.

Staff: This standard provides that the County shall not make a land use decision approving development for a property that is not in full compliance with County Code or previously issued County approvals, except in the following instances: approval will result in the property coming into full compliance, approval is necessary to protect public safety, or the approval is for work related to or within a valid easement.

This standard was originally codified in the Zoning Code chapter related to land use application procedures and, by its terms, expressly applies to the application review process. Although now codified in the enforcement Part of the Zoning Code as a result of the more recent code consolidation project, the language and intent was not changed during that project and remains applicable to the application review process and not to the post-permit-approval enforcement process.

Importantly, a finding of satisfaction of this standard does not mean that a property is in full compliance with the Zoning Code and all prior permit approvals (and, accordingly, does not preclude future enforcement actions relating to uses and structures existing at the time the finding is made). Instead, a finding of satisfaction of this standard simply means that there is not substantial evidence in the record affirmatively establishing one or more specific instances of noncompliance. As such, an applicant has no initial burden to establish that all elements of the subject property are in full compliance with the Zoning Code and all previously approved permits; instead, in the event of evidence indicating or establishing one or more specific instances of noncompliance on the subject property, the applicant bears the burden to either rebut that evidence or demonstrate satisfaction of one of the exceptions in MCC 39.1515.

Staff identified what appears to be a marina/moorage connected to the tax lot identified as R325039 that is part of Tract 1. Staff described the issue to the Applicant in the initial incomplete letter (Exhibit C.2). The property owner will work with the County Code Compliance office to address the issue. Per MCC 39.1515(A)(3), as the entire project will be within a valid easement area (Exhibit B.4) on the property, the County may review the restoration project proposal at this time. *Criterion met.*

4.2 MCC 39.3005 Lot of Record – Generally

(A) An area of land is a “Lot of Record” if it meets the standards in Subsection (B) of this Section and meets the standards set forth in this Part for the Zoning District in which the area of land is located.

(B) A Lot of Record is a parcel, lot, or a group thereof that, when created or reconfigured, either satisfied all applicable zoning laws and satisfied all applicable land division laws, or complies with the criteria for the creation of new lots or parcels described in MCC

39.9700. Those laws shall include all required zoning and land division review procedures, decisions, and conditions of approval.

(a) “Satisfied all applicable zoning laws” shall mean: the parcel, lot, or group thereof was created and, if applicable, reconfigured in full compliance with all zoning minimum lot size, dimensional standards, and access requirements.

(b) “Satisfied all applicable land division laws” shall mean the parcel or lot was created:

* * *

MCC 39.3080 Lot of Record – (MUA-20)

(A) In addition to the standards in MCC 39.3005, for the purposes of the MUA-20 district the significant dates and ordinances for verifying zoning compliance may include, but are not limited to, the following:

* * *

(B) A Lot of Record which has less than the minimum lot size for new parcels or lots, less than the front lot line minimums required, or which does not meet the access requirement of MCC 39.4345, may be occupied by any allowed use, review use or conditional use when in compliance with the other requirements of this district.

(C) Except as otherwise provided by MCC 39.4330, 39.4335, and 39.5300 through 39.5350, no sale or conveyance of any portion of a lot other than for a public purpose shall leave a structure on the remainder of the lot with less than minimum lot or yard requirements or result in a lot with less than the area or width requirements of this district.

(D) The following shall not be deemed to be a Lot of Record:

- (1) An area of land described as a tax lot solely for assessment and taxation purposes;**
- (2) An area of land created by the foreclosure of a security interest.**
- (3) An area of land created by court decree.**

Staff: Land Use Case #T2-2021-14225, T2-2021-14226, and T2-2021-14325 found that the subject tracts involved in the proposed project are each a single Lot of Record. The subject tracts remain in the same configuration as described in the decisions for the aforementioned land use cases. Therefore, each of the subject tracts remain a single Lot of Record. *Criteria met.*

5.0 MUA-20 Zone Criteria:

5.1 MCC 39.4310 Allowed Uses – (D)

The following uses and their accessory uses are allowed, subject to all applicable supplementary regulations contained in MCC Chapter 39.

* * *

(D) Public and private conservation areas and structures for the protection of water, soil, open space, forest and wildlife resources.

Staff: The Applicant proposes a restoration project to public and private conservation areas located on the subject tracts. Project goals include the enhancement / protection of water and wildlife resources. Various water control, access, and wildlife habitat structures will be replaced and/or installed as part of the project. *Criteria met.*

5.2 MCC 39.4325 Dimensional Requirements – (C)

(C) Minimum Yard Dimensions – Feet

Front	Side	Street Side	Rear
30	10	30	30

Maximum Structure Height – 35 feet

Staff: As per the site plan and structure details (Exhibit A.7 & A.16 – A.18), the proposed structures meet the required setbacks and do not exceed a height of 35 ft. *Criteria met.*

5.3 MCC 39.6850 Dark Sky Lighting Standards

* * *

(C) The following standards apply to all new exterior lighting supporting a new, modified, altered, expanded, or replaced use approved through a development permit and to all existing exterior lighting on property that is the subject of a development permit approval for enlargement of a building by more than 400 square feet of ground coverage.

(1) The light source (bulbs, lamps, etc.) must be fully shielded with opaque materials and directed downwards. “Fully shielded” means no light is emitted above the horizontal plane located at the lowest point of the fixture’s shielding. Shielding must be permanently attached.

(2) The lighting must be contained within the boundaries of the Lot of Record on which it is located. To satisfy this standard, shielding in addition to the shielding required in paragraph (C)(1) of this section may be required.

Staff: Per the Applicant’s submitted materials (Exhibits A.1 – A.21), no new exterior lighting is proposed as part of the project. Therefore, the above criteria is not applicable. *Criteria not applicable.*

6.0 Willamette River Greenway Permit Criteria:

6.1 MCC 39.5910 Uses – Greenway Permit Required

All uses allowed in the base zone are allowed in the WRG when found to satisfy the applicable approval criteria given in such zone and, except as provided in MCC 39.5920, subject to approval of a WRG permit pursuant to this Subpart.

Staff: The applicable approval criteria for a WRG permit are addressed in Section 6.2 – 6.22 below. *Criterion met.*

6.2 MCC 39.5925 Greenway Permit Application

An application for a Greenway Permit shall address the elements of the Greenway Design Plan and shall be filed as follows:

(A) For an Allowed Use or a Review Use, in the manner provided in MCC Chapter 39 Part 1 as a Type II Permit;

(B) For a Conditional Use as specified either in the base zone or in MCC 39.7000 through 39.7410, or for a Community Service Use as specified in MCC 39.7500 through 39.7810, or for a change of zone classification, or for any other Type III Permit as specified in MCC Chapter 39 Part 1, the Greenway Permit Application shall be combined with the required application for the proposed action and filed in the manner provided in MCC Chapter 39 Part 1.

Staff: The Applicant filed the appropriate application to initiate a Type II Willamette River Greenway Permit (WRG) review (Exhibit A.1). Per MCC 39.4310, conservation areas in the MUA-20 zone are an Allowed Use. As the proposal does not require a Conditional or Community Service Use Permit, a Type III review is not required. Therefore, the requested WRG permit is reviewed as a Type II permit. *Criteria met.*

6.3 MCC 39.5935 Greenway Design Plan

The elements of the Greenway Design Plan are:

(A) The maximum possible landscaped area, scenic and aesthetic enhancement, open space or vegetation shall be provided between any use and the river.

(B) Reasonable public access to and along the river shall be provided by appropriate legal means to the greatest possible degree and with emphasis on urban and urbanizable areas.

(C) Developments shall be directed away from the river to the greatest possible degree, provided, however, that lands in other than rural and natural resource base zones may continue in urban uses.

Staff: The project includes the replanting of native tree species, riparian shrubs, plants, and grasses that will enhance the functioning and look of the project area on the subject tracts. The subject tracts are private properties that do not require public access. All proposed structures serve to improve wildlife habitat (i.e. beaver dam analogs, turtle basking structures, etc.) in the project area. *Criteria met.*

6.4 (D) Agricultural lands shall be preserved and maintained for farm use.

(E) The harvesting of timber, beyond the vegetative fringes, shall be conducted in a manner which shall insure that the natural scenic qualities of the Greenway will be

maintained to the greatest extent practicable or will be restored within a brief period of time on those lands inside the Urban Growth Boundary.

(F) Recreational needs shall be satisfied by public and private means in a manner consistent with the carrying capacity of the land and with minimum conflicts with farm uses.

Staff: The proposal does not involve any agricultural lands actively involved in a farm use. Per the Applicant's narrative, the project does not include the harvesting of timber. The project area is not a recreational area; rather, the area serves as a conservation area for wildlife / wetlands / natural resources protection. *Criteria met.*

6.5 (G) Significant fish and wildlife habitats shall be protected.

Staff: Conditions for fish and wildlife will be improved through the removal of fish barriers, the creation of wood habitat features, marsh-plain lowering, and extensive native revegetation to restore and enhance the Palenksy/McCarthy Creek floodplain habitat (Exhibit A.3 and A.7 – A.21). In order to protect existing habitat, the Applicant has designed the project to avoid and protect sensitive wetland areas. In-water work will only occur during the approved window determined by the National Marine Fisheries Service (NMFS) and Oregon Department of Fish and Wildlife (ODFW) to minimize impacts to aquatic species. A condition of approval (Condition no. 3) limits the in-water work to the aforementioned NMFS & ODFW approved window. *As conditioned, the above criterion is met.*

6.6 (H) Significant natural and scenic areas and viewpoints and vistas shall be preserved.

Staff: No native vegetation will be removed as part of the proposed restoration project (Exhibit A.7 – A.21). Scenic viewpoints from the river towards the wetlands and from Highway 30 towards the Palenksy/McCarthy floodplain habitat will remain. The proposed project will enhance the natural vegetation thereby adding to the natural and scenic areas viewable from Highway 30 and the Multnomah Channel. *Criterion met.*

6.7 (I) Maintenance of public safety and protection of public and private property, especially from vandalism and trespass, shall be provided to the maximum extent practicable.

Staff: Public access is not available to the project area given the subject tracts are private property. Fencing or other physical barriers to discourage access are not practicable given the presence of sensitive wildlife. Project staff will be able to monitor movement to and from the site for the duration of the restoration project. *Criterion met.*

6.8 (J) The natural vegetation along the river, lakes, wetlands and streams shall be enhanced and protected to the maximum extent practicable to assure scenic quality, protection from erosion, screening of uses from the river, and continuous riparian corridors.

Staff: The native vegetation along the Multnomah Channel, Palenksy Wildlife Area wetlands, and McCarthy Creek will be retained and protected through a number of measures (Exhibit A.3). Barriers to fish passage and areas with non-native invasive Reed Canary Grass will be removed. Any disturbed areas will be replanted with native emergent vegetation, riparian shrubs, trees and grasses. Existing native vegetation will be protected from erosion and

continue to provide riparian corridors for fish and wildlife. A condition of approval (Condition no. 3) is included requiring the replanting of disturbed areas. The Applicant is also required to obtain a Type I Erosion and Sediment Control Permit prior to starting the project (Condition no. 2). *As conditioned, the above criterion is met.*

- 6.9 (K) Extraction of known aggregate deposits may be permitted, pursuant to the provisions of MCC 39.7300 through 39.7330, when economically feasible and when conducted in a manner designed to minimize adverse effects on water quality, fish and wildlife, vegetation, bank stabilization, stream flow, visual quality, noise, safety, and to guarantee necessary reclamation.**

Staff: The proposal does not include the extraction of known aggregate deposits. Therefore, the above criterion is not applicable. *Criterion not applicable.*

- 6.10 (L) Areas of annual flooding, flood plains, water areas and wetlands shall be preserved in their natural state to the maximum possible extent to protect the water retention, overflow and natural functions.**

Staff: The project aims to enhance the habitat quality and connectivity of floodplain wetlands, including water retention and natural function. With improved hydrologic connections, the water quality in the wetland complex will increase and the floodplain carrying capacity will increase. Marsh-plain lowering and invasive grass removal will improve the function of the wetlands and promote native plant growth. The Applicant is also required to obtain a Type I Floodplain and Development Permit prior to starting the project (Condition no. 2). *Criterion met.*

- 6.11 (M) Significant wetland areas shall be protected as provided in MCC 39.5940.**

Staff: Significant wetland areas will be protected as provided in MCC 39.5940. The requirements of MCC 39.5940 are addressed in Section 6.17 – 6.22 below.

- 6.12 (N) Areas of ecological, scientific, historical or archaeological significance shall be protected, preserved, restored, or enhanced to the maximum extent possible.**

Staff: The Palensky Wildlife Area / Burlington Bottoms are ecologically significant. The proposal aims to restore and preserve the ecological functions of the site by removing water control structures (fish barriers), removing non-native grass, and replanting native vegetation. Access routes and staging areas were selected and designed to avoid and protect any sensitive areas of the site (Exhibit A.7). *Criterion met.*

- 6.13 (O) Areas of erosion or potential erosion shall be protected from loss by appropriate means which are compatible with the character of the Greenway.**

(P) The quality of the air, water and land resources in and adjacent to the Greenway shall be preserved in development, change of use, or intensification of use of land designated WRG.

Staff: The project is planned for the summer, which should reduce the risk of exposed soils being subjected to rain and runoff. Erosion and sediment control measures (Exhibit A.20) and

best management practices will be used to aid in preserving the quality of the air, water, and land resources adjacent to the project site. Measures include silt curtains, silt fencing, straw wattles, dust abatement, and vegetated buffers.

Once the restoration actions are complete, proposed work areas will be replanted with native grass seed and emergent riparian and upland plant species to stabilize the soils. Marshplain lowering areas will be reseeded with native wetland grass seed mix and native wetland plugs will be installed directly after construction to stabilize soils. Recruitment of native emergent plants from adjacent wetlands will help re-establish vegetative cover in the wetlands. Wetland enhancement areas will be reseeded with native wetland grass seed mix and replanted with native shrub-scrub plant species. Upland work areas will be reseeded with native grass seed mix and native shrubs/trees.

A condition of approval (Condition no. 3) requires the installation of erosion control measures prior to and during construction. Condition no. 3 requires the replanting of disturbed areas per the planting details included as Exhibit A.21. *As conditioned, the above criterion is met.*

- 6.14 (Q) A building setback line of 150 feet from the ordinary low waterline of the Willamette River shall be provided in all rural and natural resource base zones, except for non-dwellings provided in conjunction with farm use and except for buildings and structures in conjunction with a water-related or a water dependent use.**

Staff: The project does not include the construction of any buildings. Therefore, the above criterion is not applicable. *Criterion not applicable.*

- 6.15 (R) Any development, change of use or intensification of use of land classified WRG, shall be subject to design review, pursuant to MCC 39.8000 through 39.8050, to the extent that such design review is consistent with the elements of the Greenway Design Plan.**

Staff: The relevant design review criteria are addressed in Section 7.1 -7.4 below.

- 6.16 (S) The applicable policies of the Comprehensive Plan are satisfied.**

Policy 5.6 – Protect vegetated riparian corridors in order to maintain their water quality functions.

Staff: Construction is planned for the summer (July – October), which typically sees water levels at their lowest. With the low water levels, excavation and transportation of soils is possible without the turbidity / water quality concerns present during normal water levels. With the decreased chance of rain during the summer, the risk of runoff affecting exposed soils is much lower. With the involvement of erosion & sediment control measures and best practices (i.e. silt fencing, straw wattles, vegetated buffers, etc.), water quality should be maintained throughout the duration of the project.

Existing native vegetation will be retained and protected to the maximum extent practicable throughout the duration of the project. Vegetation removal is limited to invasive grasses and the designated areas for temporary road access establishment. Work areas will be replanted with native vegetation, which will reduce erosion, and improve the air and water quality

(Exhibit A.21). The new plantings will help to re-establish vegetative cover in the wetlands. *Policy met.*

Policy 5.15 – Protect, conserve, enhance, and maintain the natural, scenic, historical, agricultural, economic, and recreation qualities of lands along the Willamette River

Staff: Per the Applicant’s proposal, existing native vegetation will be retained and protected (Exhibit A.3 and A.21). Invasive grass will be removed and all disturbed areas replanted with native vegetation to protect and enhance the riparian corridor. The proposal does not include the removal of any trees along the Multnomah Channel. None of the proposed restoration actions should affect historical, agricultural, economic, scenic, or recreational qualities along the Willamette River. *Policy met.*

6.17 MCC 39.5940 Significant Wetlands

Significant wetlands consist of those areas designated as Significant on aerial photographs of a scale of 1"=200' made a part of the supporting documentation of the Comprehensive Plan. Any proposed activity or use requiring an WRG permit which would impact those wetlands shall be subject to the following:

(A) In addition to other WRG Permit submittal requirements, the application shall also include:

- (1) A site plan drawn to scale showing the wetland boundary as determined by a documented field survey, the location of all existing and proposed structures, roads, watercourses, drainageways, stormwater facilities, utility installations, and topography of the site at a contour interval of no greater than five feet;**
- (2) A description and map of the wetland area that will be affected by the proposed activity. This documentation must also include a map of the entire wetland, an assessment of the wetland’s functional characteristics and water sources, and a description of the vegetation types and fish and wildlife habitat;**
- (3) A description and map of soil types in the proposed development area and the locations and specifications for all proposed draining, filling, grading, dredging, and vegetation removal, including the amounts and methods;**
- (4) A study of any flood hazard, erosion hazard, or other natural hazards in the proposed development area and any proposed protective measures to reduce such hazards;**
- (5) Detailed Mitigation Plans as described in subsection (D), if required;**
- (6) Description of how the proposal meets the approval criteria listed in subsection (B) below.**

Staff: The required materials listed above are included in Exhibits A.1 – A.21. *Criteria met.*

6.18 (B) In addition to the criteria listed in MCC 39.5935 the applicant shall demonstrate that the proposal:

(1) Is water-dependent or requires access to the wetland as a central element of its basic design function, or is not water dependent but has no practicable alternative as described in subsection (C) below;

Staff: The sole purpose of the project is to protect, restore, and enhance the Palensky Wildlife Area / Burlington Bottoms wetlands. Restoration activities require working within and near the wetlands in order to remove invasive grasses, replant native vegetation, lower marsh-plain elevations, and other related measures (Exhibit A.7). As the project requires access to the wetland as a central element of its basic design function, an alternatives analysis under subsection (C) below is not required. *Criterion met.*

6.19 (2) Will have as few adverse impacts as is practical to the wetland's functional characteristics and its existing contour, vegetation, fish and wildlife resources, shoreline anchoring, flood storage, general hydrological conditions, and visual amenities. This impact determination shall also consider specific site information contained in the adopted wetlands inventory and the economic, social, environmental, and energy (ESEE) analysis made part of the supporting documentation of the comprehensive plan;

(3) Will not cause significant degradation of groundwater or surface water quality;

(4) Will provide a buffer area of not less than 50 feet between the wetland boundary and upland activities for those portions of regulated activities that need not be conducted in the wetland;

Staff: The project aims to restore wetland function. Work areas are located on gravel roadways or in areas of the wetlands dominated by invasive grasses (Exhibit A.7). Restoration activities, methods, and timing (summer) are designed to minimize any adverse impacts to the wetlands. Invasive plant species removal and marsh-plain elevation lowering will allow native vegetation to reestablish at the site. Although some contouring changes will be made to the wetland, the changes will help restore the natural hydrology and encourage more diversity in the native wetland plant community (Exhibit A.3). *Criteria met.*

6.20 (5) Will provide offsetting replacement wetlands for any loss of existing wetland areas. This Mitigation Plan shall meet the standards of subsection (D).

Staff: As no existing wetlands areas will be lost, no replacement wetlands are required and the requirements of subsection (D) are not applicable to the project. *Criterion not applicable.*

6.21 (C) A finding of no practicable alternative is to be made only after demonstration by the applicant that:

(1) The basic purpose of the project cannot reasonably be accomplished using one or more other practicable alternative sites in Multnomah County that would avoid or result in less adverse impact on a wetland. An alternative site is to be considered practicable if it is available for purchase and the proposed activity can be

conducted on that site after taking into consideration costs, existing technology, infrastructure, and logistics in achieving the overall project purposes;

* * *

Staff: As noted in Section 6.18 above, the restoration project is water dependent and requires access to the wetland as a central element of the project design function. Therefore, an analysis of the criteria in subsection (C) above is not required. *Criteria not applicable.*

6.22 (D) A Mitigation Plan and monitoring program may be approved upon submission of the following:

(1) A site plan and written documentation which contains the applicable information for the replacement wetland as required by MCC 39.5935 and subsection (A) of this section;

* * *

Staff: As noted in Section 6.20 above, the project does not result in the loss of any existing wetlands. Therefore, a mitigation and monitoring plan subject to subsection (D) above is not required. *Criteria not applicable.*

7.0 Design Review Criteria:

7.1 MCC 39.8020 Application of Regulations

(A) Except those exempted by MCC 39.8015, the provisions of MCC 39.8000 through 39.8050 shall apply to all conditional and community service uses, and to specified uses, in any base zone.

(B) Uses subject to Design Review that require the creation of fewer than four new parking spaces pursuant to MCC 39.6590 shall only be subject to the following Design Review approval criteria: MCC 36.8040(A)(1)(a) and (1)(c), (4) and (7), except when located in the RC, BRC, OR, OCI, PH-RC or SRC zone base zones.

* * *

Staff: The proposal is not for a conditional or community service use. Therefore, section (A) above is not applicable. Because the proposal requires less than four new parking spaces, the proposal will only be evaluated for the Design Review approval criteria of MCC 39.8040(A)(1)(a) and (1)(c), (4) and (7). *Criteria met.*

7.2 MCC 39.8025 Design Review Plan Contents

(A) The design review application shall be filed on forms provided by the Planning Director and shall be accompanied by a site plan, floor plan, architectural elevations and landscape plan, as appropriate, showing the proposed development.

(B) Plans shall include the following, drawn to scale:

* * *

Staff: The requisite forms, plans and information are included in Exhibits A.1 – A.21. *Criteria met.*

7.2 MCC 39.8040 Design Review Criteria

(A) Approval of a final design review plan shall be based on the following criteria:

(I) Relation of Design Review Plan Elements to Environment.

(a) The elements of the design review plan shall relate harmoniously to the natural environment and existing buildings and structures having a visual relationship with the site.

* * *

(c) Each element of the design review plan shall effectively, efficiently, and attractively serve its function. The elements shall be on a human scale, inter related, and shall provide spatial variety and order.

* * *

Staff: The restoration project aims to enhance the ecological function of the site. Natural hydrology and a more diverse native wetland plant community are goals of the project. The Applicant provided a detailed Design Review Report completed by *Wolf Water Resources* (Exhibit A.3). Design objectives included establishing unhindered access to interior wetland areas for native fish species; increasing water retention through the wetland complex; removing invasive grass; and increasing native emergent marsh habitat.

Structures associated with the project include McCarthy Bridge, Swale Bridge, Beaver Damn Analogues (BDAs), Wood Habitat Structures, Upland Hibernaculum, Turtle Basking Logs and Rafts (Exhibit A.3 and A.7). Preliminary structure plans are included as Exhibits A.16 – A.18.

Bridges are designed to provide full egress opportunities in the floodplain for fish. Round scour protection rock will be buried underneath 1 ft. of onsite native soils and utilized to protect bridge abutments. No rock will be placed along swale bottoms. A hydraulic analysis was incorporated into the design to verify existing and post-construction fish passability (Exhibit A.3). The hydraulic analyses also informed the selection of scour rock sizing and wood structure stability.

BDAs encourage beaver dam establishment, which extends periods of inundation in the wetlands and retains fish passage. Materials include untreated posts and live willow cuttings. No anchors or rocks will be used.

Wood Habitat structures will be installed in the slough to promote fish passage and prolong inundation of the wetland. Structures are formed from a combination of long logs with rootwads, logs without rootwads, and slash. Nine (9) of the structures will be more robust

(“Type 3”) and employ streambed cobble to prevent channel down-cutting. The Type 3 structures will have a 6” or less vertical rise to allow juvenile salmonid passage.

Upland Hibernaculum will consist of salvaged riprap following the removal of the existing water control structure. Three (3) hibernacula will be constructed near the “Snipe Wetlands”. Hibernacula are designed for burrowing species including snakes, salamanders, and voles.

Turtle Basking Logs and Rafts will consist of large wood that is keyed into existing mudflats and emergent marsh at low angles. This design allows turtles to climb onto the logs and bask. The log rafts are constructed by bolting together four (4) fir logs. Rafts encircle a vertical log to prevent drifting offsite.

Based on the above, the Applicant has demonstrated that the proposed structures are designed to harmoniously relate to the natural environment of the project site. Further, that the design elements effectively, efficiently, and attractively serve their function. The proposed designs are expected to provide spatial variety matching the natural composition of the conservation area. *Criteria met.*

7.3 (4) Preservation of Natural Landscape - The landscape and existing grade shall be preserved to the maximum practical degree, considering development constraints and suitability of the landscape or grade to serve their functions. Preserved trees and shrubs shall be protected during construction.

* * *

Staff: Existing native vegetation will be retained and protected to the maximum extent practicable throughout the duration of the project (Exhibit A.7 – A. 14 and A.21). Invasive grass will be removed and the disturbed areas replanted with native vegetation. The replanted native vegetation will enhance the riparian corridors for fish and wildlife. The minimal grading necessary to remove the invasive grasses will be employed and the grading will mimic the natural site (Exhibit A.3). Through these actions, natural hydrology will be restored, which will help support native emergent and riparian plant species in the area.

Erosion and sediment control measures will follow Best Management Practices such as straw wattle barriers and sandbag cofferdams (Exhibit A.3 and A.20). In-water work will comply with NMFS and ODFW guidelines and be limited to the approved in-water work period. Fish salvage measures will be utilized. Existing access roads will be used and temporary access roads will only be used for portions that are not otherwise accessible. Although impacts to vegetation will be minimized, all disturbed areas used for temporary access will be restored to pre-construction levels after construction is complete (Exhibit A.7 – A.14 and A.21). *Criterion met.*

7.4 (7) Buffering and Screening - Areas, structures and facilities for storage, machinery and equipment, services (mail, refuse, utility wires, and the like), loading and parking, and similar accessory areas and structures shall be designed, located, buffered or screened to minimize adverse impacts on the site and neighboring properties.

* * *

Staff: The proposed restoration project does not require permanent areas for storage, machinery, equipment, loading and parking, or similar accessory areas and structures (Exhibit A.7). Therefore, buffering or screening of such areas to minimize adverse impacts of such area on neighboring properties is not required. *Criterion met.*

8.0 Conclusion

Based on the findings and other information provided above, the applicant has carried the burden necessary for the Willamette River Green Permit and Design Review for the proposed restoration project of a conservation area in the MUA-20 zone. This approval is subject to the conditions of approval established in this report.

9.0 Exhibits

‘A’ Applicant’s Exhibits

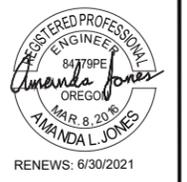
‘B’ Staff Exhibits

‘C’ Procedural Exhibits

Exhibits with a “*” after the exhibit # have been included as part of the mailed decision. Those exhibits have been reduced to a size of 8.5” x 11” for mailing purposes. All other exhibits are available for digital review in Case File T2-2021-14229.

Exhibit #	# of Pages	Description of Exhibit	Date Received / Submitted
A.1	2	General Application Forms	01.13.2021
A.2	24	Project Narrative	01.13.2021
A.3	67	Design Review Report Section 1.0: Project Background Section 2.0: Resource Inventory and Evaluation Section 3.0: Technical Basis Section 4.0: Construction – Contract Documentation Section 5.0: References	01.13.2021
A.4	1	Fire Service Agency Review	01.13.2021
A.5	4	Sheet G01 – G04: Plans Cover Sheet and Notes	01.13.2021
A.6	1	Sheet C1.0: Existing Conditions Plan	01.13.2021
A.7*	1	Sheet C1.1: Site Overview and Access Plan	01.13.2021
A.8	1	Sheet C1.2: Plan & Profile – WCS Removal & Kidney Connection	01.13.2021
A.9	1	Sheet C1.3: Plan – Snipe Wetland	01.13.2021
A.10	1	Sheet C1.4: Plan & Profile – Oak Wetland	01.13.2021
A.11	1	Sheet C1.5: Plan & Profile – Sedge Wetland	01.13.2021

A.12	1	Sheet C1.6: Plan & Profile – Powerline Connection	01.13.2021
A.13	1	Sheet C1.7: Plan & Profile – McCarthy Connections	01.13.2021
A.14	1	Sheet C1.8: Plan & Profile – McCarthy Slough	01.13.2021
A.15	3	Sheet C2.1 – C2.3: Sections	01.13.2021
A.16	6	Sheet C3.1 – C3.6: Habitat Details	01.13.2021
A.17	1	Sheet C4.1: McCarthy Bridge Plan	01.13.2021
A.18	1	Sheet C4.2: Swale Bridge Plan	01.13.2021
A.19	1	Sheet C4.3: WCS Demo Plan	01.13.2021
A.20	1	Sheet ESC1.1: ESC Details	01.13.2021
A.21	1	Sheet L1.1: Planting Details	01.13.2021
‘B’	#	Staff Exhibits	Date
B.1	1	Division of Assessment, Recording, and Taxation (DART): Map for 2N1W17	01.13.2021
B.2	1	Division of Assessment, Recording, and Taxation (DART): Map for 2N1W18	01.13.2021
B.3	1	Division of Assessment, Recording, and Taxation (DART): Map for 2N1W20	01.13.2021
B.4	3	Copy of NRCS Conservation Easement	03.04.2021
‘C’	#	Administration & Procedures	Date
C.1	2	Incomplete letter	02.10.2021
C.2	1	Complete letter (day 1)	03.04.2021
C.3	20	Opportunity to Comment	05.03.2021
C.4	19	Administrative Decision	05.28.2021

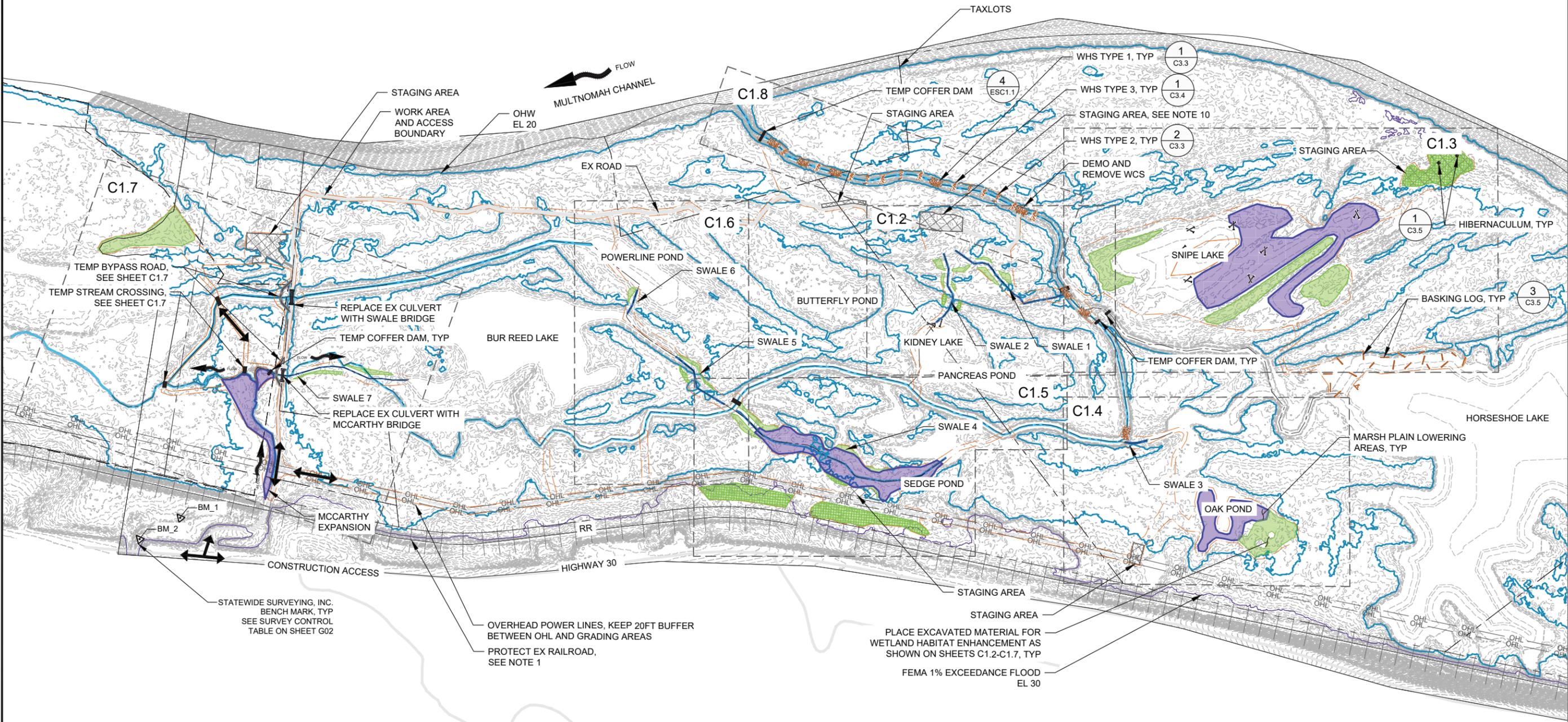


DESIGNED BY	AJ/RCC
DRAWN BY	RW/BBS
CHECKED BY	AJ/RCC
APPROVED BY	CUL

NO.	DATE	DESCRIPTION	REVISION

COLUMBIA RIVER ESTUARY STUDY TASKFORCE
PALENSKY RESTORATION PROJECT
PORTLAND, OR

SITE OVERVIEW & ACCESS PLAN
JOB NO. 20160007.2
SHEET NO. C1.1



NOTES:

- CONTRACTOR SHALL COORDINATE WITH CREST FOR ACCESS ACROSS PRIVATE PROPERTY AND RAILROAD PRIOR TO MOBILIZATION.
- FLAG AREAS TO BE CLEARED AND GRUBBED. CREST SHALL REVIEW AND APPROVE MARKED AREAS BEFORE CLEARING.
- EXCAVATE MARSH PLAIN LOWERING AREAS PER PLAN C1.3, C1.4, C1.5, C1.7 AND SECTIONS C2.2 AND C2.3.
- REMOVE EX CULVERTS AND WCS PER PLAN AND SECTIONS CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF CULVERTS OFF SITE (C4.1, C4.2, C4.4).
- PLACE EXCAVATION MATERIAL IN THE HABITAT ENHANCEMENT LOCATIONS PER PLANS C1.4, C1.5 AND PER SECTION ON SHEET C2.2. EXCAVATION MATERIAL SHALL BE BLENDED INTO THE SURROUNDING LANDSCAPE. HABITAT ENHANCEMENT AREAS TO BE MARKED IN THE FIELD AND APPROVED BY CREST PRIOR TO CONSTRUCTION.
- REVEGETATE GRADING AREAS PER PLAN ON THIS SHEET AND ON SHEET L1.1.
- DOWNED OR CLEARED LOGS ENCOUNTERED DURING EXCAVATION TO BE SALVAGED, STOCKPILED AND PLACED ON OR EMBEDDED IN THE FINISHED GRADE MARSH PLAIN ACCORDING TO THE SPECIFICATIONS.
- EQUIPMENT SHALL NOT BE DRIVEN OUTSIDE THE WORK AREA AND ACCESS BOUNDARY.
- CONTRACTOR SHALL PROVIDE SECONDARY CONTAINMENT FOR ALL EQUIPMENT AND MATERIAL STORAGE IN STAGING AREAS WITHIN 150 FEET OF STREAMS AND WETLANDS.
- ALL VEHICLE STAGING AREAS AND RE-FUELING AREAS SHALL BE ABOVE OHW. STAGING AREAS BELOW OHW ARE FOR TEMPORARY WOOD STOCKPILING AND WCS DEBRIS PRIOR TO OFF-HAULING.

LEGEND

- WORK AREA AND ACCESS BOUNDARY
- MARSH PLAIN LOWERING (MPL)
- UPLAND HABITAT ENHANCEMENT
- WETLAND HABITAT ENHANCEMENT



SITE OVERVIEW & ACCESS PLAN

ODFW IN-WATER WORK WINDOW
JULY 15TH TO SEPTEMBER 30TH

DWG: Z:\Shared\WPCAD\20160007.2-Palensky-Burlington-Bottoms\DWGS\SHETS\C1.1-PBB-SITE OVERVIEW & ACCESS.dwg USER: bschoner DATE: Mar 15, 2021 2:12pm XREFS:X-DESIGN X-AERIAL X-TB-2234-PBB 2016-190 Eryans Palensky Field Data X-SURFACE EG

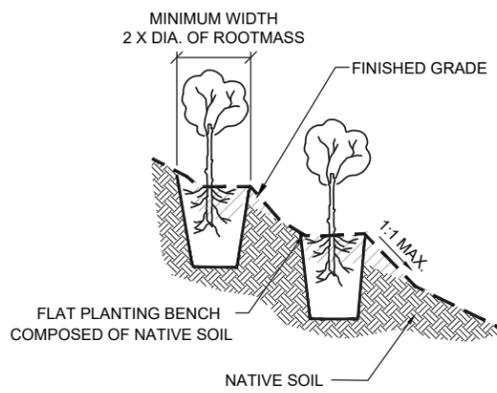


WOLF WATER RESOURCES, INC.
1001 SE WATER AVE. SUITE #180
PORTLAND, OR 97214
503.207.6688

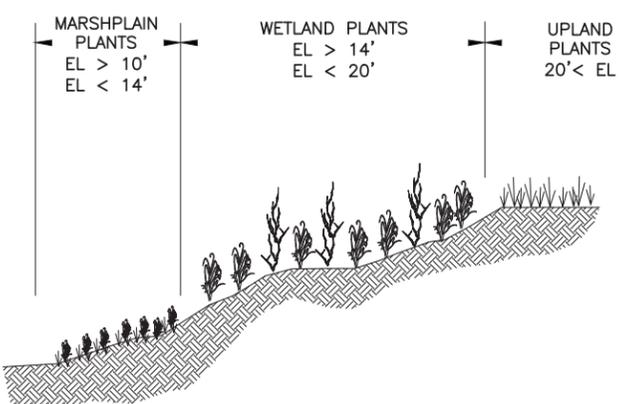
crest
COLUMBIA RIVER ESTUARY STUDY TASKFORCE
818 COMMERCIAL ST., SUITE 203
ASTORIA, OR 97103
503.325.0459

PLANT AND SEEDING NOTES

- SEED AND PLANT AREAS PER PLAN SHEETS C1.1 TO C1.8 AND THE ELEVATION RANGES ON THIS SHEET. SEEDING AND PLANTING SCHEDULES ARE COLOR CODED TO MATCH GRADING AREA HATCHES. DISTURBANCE ALONG ACCESS ROUTES AND IN STAGING AREAS SHALL BE SEED WITH WETLAND SEED MIX AT THE RATES IN TABLE 2 BELOW.
- SEED MARSH PLAIN LOWERING AREAS ABOVE ELEVATION 10 FEET NAVD88 AS SHOWN ON THE PLANS WITH MARSHPLAIN SEED MIX FROM TABLE 1 ON THIS SHEET.
- PLANT THE 3000 MARSHPLAIN PLUGS IN CLUSTERS AS DIRECTED IN THE FIELD BY CREST.
- SEED WETLAND AREAS BELOW ELEVATION 20 FEET NAVD88 AS SHOWN ON THE PLANS WITH WETLAND SEED MIX FROM TABLE 2 ON THIS SHEET.
- SEED UPLAND HABITAT ENHANCEMENT AREAS ABOVE ELEVATION 20 NAVD88 WITH UPLAND SEED MIX FROM TABLE 3 ON THIS SHEET. USE EXPERIMENTAL UPLAND SEED MIX AS INDICATED ON SHEET C1.5 PER TABLE 3 FOOTNOTE.
- PLANTING NORTH OF THE GRAVEL ROAD IS NOT INCLUDED IN THIS CONTRACT. SEED MIXES SHALL BE APPLIED ACROSS ENTIRE SITE.



1 PLANTING



NOTE: SECTION SHOWN FOR CONCEPTUAL REFERENCE ACTUAL PLANTING AREAS NOT NECESSARILY CONTINUOUS/ADJACENT. SEED AND PLANT ENTIRE DISTURBANCE AREA FOR EACH COVERAGE (MARSHPLAIN, WETLAND, UPLAND) WITH THE SPECIFIED SEED AND PLANTS. ALONG WORK AREA MARGINS THIS MAY REQUIRE PLANTING/SEEDING MARSHPLAIN SPECIES ABOVE EL 14' AND PLANTING SEEDING WETLAND SPECIES BELOW EL 14'

2 TYPICAL PLANTING SECTION

TABLE 1: MARSHPLAIN SEED MIX

AREA:8.8 AC, ELEVATION RANGE: >10FT NAVD88

COMMON NAME	BOTANICAL NAME	LBS PLS/ACRE
SHORTAWN FOXTAIL	<i>ALOPECURUS AEQUALIS</i>	1.00
SLOUGH GRASS	<i>BECKMANNIA SYZIGACHNE</i>	3.00
CREEPING SPIKERUSH	<i>ELEOCHARIS PALUSTRIS</i>	0.15
SLOUGH SEDGE	<i>CAREX OBNUPTA</i>	0.25
AWLFRUIT SEDGE	<i>CAREX STIPATA</i>	0.25
COMMON RUSH	<i>JUNCUS EFFUSUS</i>	0.1
RICE CUTGRASS	<i>LEERSIA ORYZOIDES</i>	2.00
DENSE SPIKE PRIMROSE	<i>EPILOBIUM DENSIFLORUM</i>	1.00
WAPATO	<i>SAGITTARIA LATIFOLIA</i>	1.00

TABLE 2: WETLAND SEED MIX

AREA:21.2 AC, ELEVATION RANGE: <20FT NAVD88

COMMON NAME	BOTANICAL NAME	LBS PLS/ACRES
SPIKE BENTGRASS	<i>AGROSTIS EXARATA</i>	0.25
MEADOW BARLEY	<i>HORDEUM BRACHYANTHERUM</i>	7.00
TUFTED HAIRGRASS	<i>DESCHAMPSIA CESPITOSA</i>	1.00
SLOUGH GRASS	<i>BECKMANNIA SYZIGACHNE</i>	1.25
PUGET SOUND GUMWEED	<i>GRINDELIA INTEGRIFOLIA</i>	1.00
CLUSTERED TARWEED	<i>MADIA GLOMERATA</i>	1.00
LARGE-LEAF LUPINE	<i>LUPINUS POLYPHYLLUS</i>	1.00

TABLE 3: UPLAND SEED MIX

AREA:2.6 AC, ELEVATION RANGE: >20FT NAVD88

COMMON NAME	BOTANICAL NAME	LBS PLS/ACRE
BLUE WILDRYE***	<i>ELYMUS GLAUCUS</i>	5.00
CALIFORNIA BROME***	<i>BROMUS CARINATUS</i>	7.00
SHOWY TARWEED	<i>MADIA ELEGANS</i>	1.50
YARROW	<i>ACHILLEA MILLEFOLIUM</i>	0.125
WOOL OR/OR SUNSHINE	<i>ERIOPHYLLUM LANATUM</i>	0.25
RIVERBANK LUPINE	<i>LUPINUS RIVULARIS</i>	0.50
CINGUEFOIL	<i>POTENTILLA GRACILIS</i>	0.25
SELFHEAL; HEAL-ALL	<i>PRUNELLA VULGARIS VAR. LANCELOATA</i>	2.00
WESTERN BUTTERCUP	<i>SIDALCEA CAMPESTRIS</i>	2.00
MEADOW CHECKERMALLOW	<i>SIDALCEA CAMPESTRIS</i>	3.00
***	***	***
CALIFORNIA OATGRASS	<i>DANTHONIA CALIFORNICA</i>	4.00
ROMER'S FESCUE	<i>FESTUCA ROEMERI</i>	2.00

*** EXPERIMENTAL UPLAND SEED MIX: WHERE CALLED FOR IN THE UPLAND SEEDING AREA ON SHEET C1.5 SUBSTITUTE CALIFORNIA OATGRASS (*DANTHONIA CALIFORNICA*) FOR BLUE WIDRYE AND SUBSTITUTE ROMER'S FESCUE (*FESTUCA ROEMERI*) FOR CALIFORNIA BROME. DO NOT SEED OATGRASS OR FESCUE EXCEPT WHERE USE OF EXPERIMENTAL UPLAND SEED MIX IS INDICATED. EXPERIMENTAL UPLAND SEED MIX AREA IS APPROXIMATELY 0.7 ACRES. SEED SUBSTITUTIONS AT RATES SHOWN IN TABLE 3.

TABLE 4: MARSHPLAIN PLANTING SCHEDULE

AREA:7.6 AC, ELEVATION RANGE: >10FT NAVD88

COMMON NAME	BOTANICAL NAME	CONDITION	SPACING (FT ON-CENTER)	TOTAL PER SPECIES
NORTHERN WATER PLANTAIN	<i>ALISMA TRIVIALE</i>	PLUGS	3	750
COMMON SNEEZEWEED	<i>HELENIUM AUTUMNALE</i>	PLUGS	3	750
SLENDERBEAK SEDGE	<i>CAREX ATHROSTACHYA</i>	PLUGS	3	750
THICK-HEAD SEDGE	<i>CAREX PACHYSTACHYA</i>	PLUGS	3	750

TABLE 5: WETLAND PLANTING SCHEDULE

AREA:3.5 AC, ELEVATION RANGE: <20FT NAVD88

COMMON NAME	BOTANICAL NAME	CONDITION	SPACING (FT ON-CENTER)	TOTAL PER SPECIES
RED-OSIER DOGWOOD	<i>CORNUS STOLONIFERA</i>	1 GAL/BARE ROOT	4	900
DOUGLAS HAWTHORNE	<i>CRATAEGUS DOUGLASII</i>	1 GAL/BARE ROOT	4	900
OREGON ASH	<i>FRAXINUS LATIFOLIA</i>	BARE ROOT	4	850
OREGON ASH	<i>FRAXINUS LATIFOLIA</i>	1 GAL	4	50
BLACK TWINBERRY	<i>LONICERA INVOLUCRATA</i>	BARE ROOT	4	900
PACIFIC NINEBARK	<i>PHYSOCARPOS CAPITATUS</i>	BARE ROOT	4	900
SWAMP/CLUSTERED ROSE	<i>ROSA PISOCARPA</i>	BARE ROOT	4	900
PACIFIC WILLOW	<i>SALIX LASSIANDRA</i>	LIVESTAKES	4	2,500
SITKA WILLOW	<i>SALIX SITCHENSIS</i>	LIVESTAKES	4	2,500
HOOKER'S/PIPER'S WILLOW	<i>SALIX HOOKERIANA</i>	LIVESTAKES	4	2,500
DOUGLAS SPIREA	<i>SPIREA DOUGLASII</i>	BARE ROOT	4	1,200

TABLE 6: UPLAND PLANTING SCHEDULE

AREA:2.6 AC, ELEVATION RANGE: >20FT NAVD88

COMMON NAME	BOTANICAL NAME	CONDITION	SPACING (FT ON-CENTER)	TOTAL PER SPECIES
SCOULER WILLOW	<i>SALIX SCOULERIANA</i>	LIVE STAKE	8	150
OSOBERRY/INDIAN-PLUM	<i>OEMLERIA CERASIFORMIS</i>	1 GAL/BARE ROOT	8	150
TALL OREGON-GRAPE	<i>MAHONIA AQUIFOLIUM</i>	1 GAL/BARE ROOT	8	150
WESTERN CHOKECHERRY	<i>PRUNUS VIRGINIANA VAR. DEMISSA</i>	1 GAL/BARE ROOT	8	150
OREGON WHITE OAK	<i>QUERCUS GARRYANA</i>	1 GAL	8	150
RED FLOWERING CURRANT	<i>RIBES SANGUINEUM</i>	1 GAL/BARE ROOT	8	150
BLUE ELDERBERRY	<i>SAMBUCUS CAERULEA</i>	1 GAL/BARE ROOT	8	150
OCEANSPRAY	<i>HOLODISCUS DISCOLOR</i>	1 GAL/BARE ROOT	8	150
SASKATOON SERVICEBERRY	<i>AMERLANCHIER ALNIFOLIA</i>	1 GAL/BARE ROOT	8	150
BLACK HAWTHORN	<i>CRATAEGUS DOUGLASII</i>	BARE ROOT	8	125
BLACK HAWTHORN	<i>CRATAEGUS DOUGLASII</i>	1 GAL	8	25
CASCARA	<i>RAMNUS PURSHIANA</i>	1 GAL/BARE ROOT	8	150
MOCKORANGE	<i>PHILADELPHUS LEWISII</i>	1 GAL/BARE ROOT	8	150
NOOTKA ROSE OR BALDHIP	<i>ROSA NUTKANA OR R. GYMNOCARPA</i>	1 GAL/BARE ROOT	8	150
SNOWBERRY	<i>SYMPHORICARPOS ALBA</i>	1 GAL/BARE ROOT	8	150

DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	NO.	DATE	DESCRIPTION	REVISION
AJ/RCC	RWB/S	AJ/RCC	CUL				

COLUMBIA RIVER ESTUARY STUDY TASKFORCE

PLANTING DETAILS

PALENSKY RESTORATION PROJECT

PORTLAND, OR

JOB NO. 20160007.2

SHEET NO. L1.1

DWG: Z:\Shared\WC\CAD\20160007.2-Palensky-Burlington Bottoms\DWG\SHEETS\L1.1-PBB-PLANTING DETAILS_rev.dwg USER: beshoner DATE: Mar 15, 2021 2:50pm XREFS: X-TB-ZZ34-PBB