

# Planting Plan

March 2021

## 1 ESTABLISH NATIVE WOODY SPECIES

The goal of the restoration plan is to establish approximately 18 acres of riparian habitat along Spring Creek. Based on the location of naturally established woody species throughout the restoration area, it is assumed groundwater elevation below the ordinary high water mark (OHWM) of Spring Creek closely aligns with the creek elevation. Given the relatively shallow depth to groundwater, it is recommended native species are installed to groundwater depth where possible within the disturbed areas at an average spacing of 10 feet on-center for potted trees and 4 feet on-center for potted shrubs. Coyote willow (*Salix exigua*), redosior dogwood, and black cottonwood (*Populus balsamifera*) will be harvested from local stock and should be installed to groundwater depth. It is recommended planting activities occur in the fall of 2021, after the County has removed the culverts within the restoration area.

### 1.1 Planting Zones

Five planting zones, totaling approximately 18.3 acres, were identified based on elevation, field observations, and proximity to hydrology (**Figure 1**). Woody species were selected for each zone based on likely soil moisture conditions and the potential irrigation needs of the species (**Table 1**). Once shrubs and trees are planted, any areas that are not mulched within Zones 1, 2, and 3 should be seeded with a native grass seed mix. A minimum size of 1-gallon pots will be used for planting in Zones 1 and 2. All cottonwood stakes in Zones 3 and 5 should be installed prior to seeding and planting within Zones 1, 2, and 3.

### 1.2 Mulch

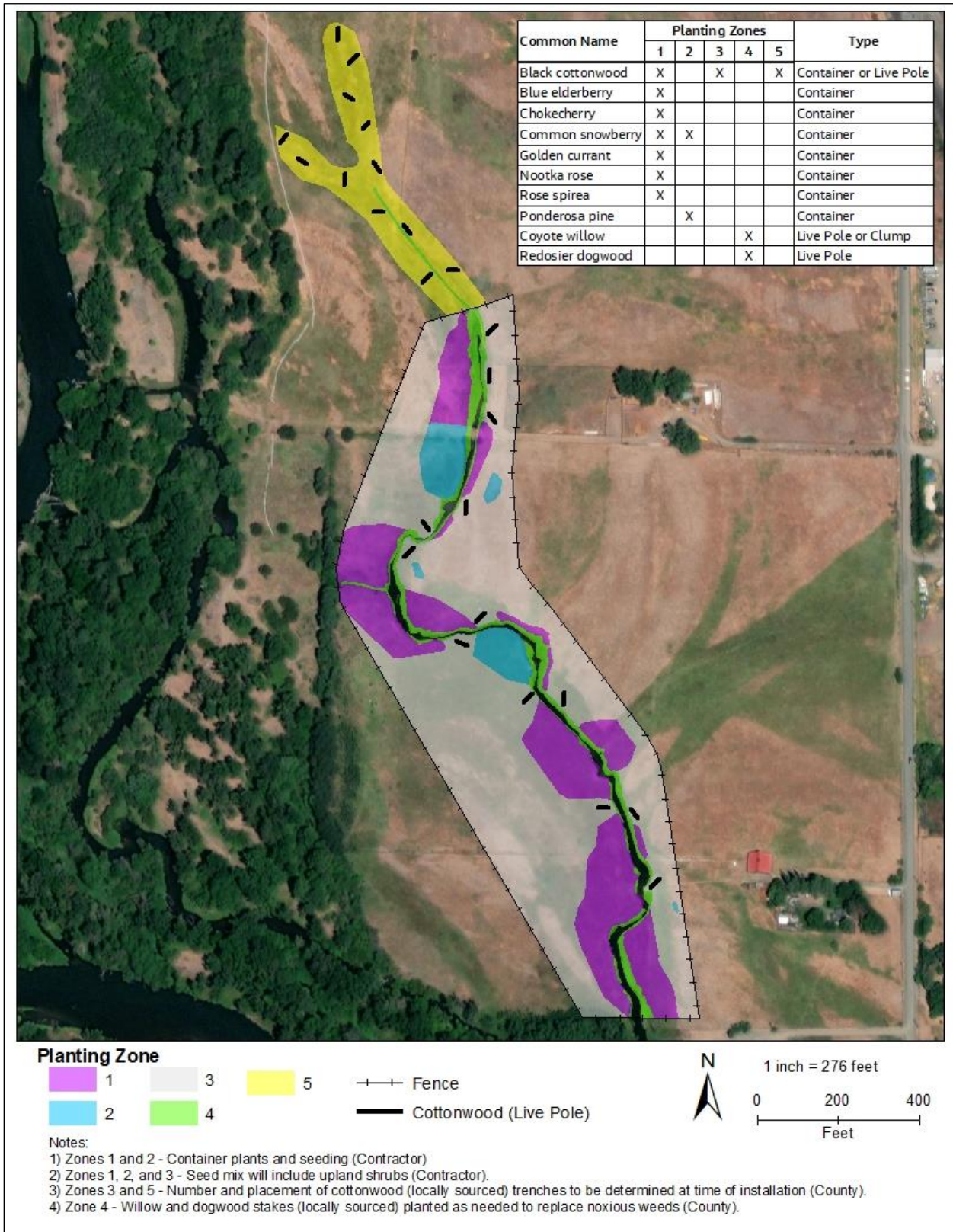
Mulch is recommended in a three foot diameter around each planted tree or shrub within Zones 1 and 2 (**Appendix A**). Apply mulch 4 inches thick to decrease competition and aid in water retention.

### 1.3 Seeding

Seeding native grasses is recommended in conjunction with fall planting in Zones 1, 2, and 3 in areas that are not mulched. A recommended seed mix for these zones is outlined in **Table 2**. It is recommended a course rake is ran over the sites prior to planting and seeding to increase seed contact with the soil. Due to rocky portions of the site which limits the ability to disc or drill seed, hydroseeding is likely the best option for seeding.

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Figure 1: Proposed Restoration Planting Zones



**Table 1: Proposed Species Within Planting Zones**

Planting Area/ Common Name	Species	Quantity	Minimum Size	Spacing
rose spirea	<i>Spiraea douglasii</i>	1,000	1 gallon	4 feet on center
chokecherry	<i>Prunus virginiana</i>	1,500	1 gallon	
golden currant	<i>Ribes aureum</i>	1,250	1 gallon	
blue elderberry	<i>Sambucus nigra</i> sp. <i>cerulea</i>	1,250	1 gallon	
Nootka rose	<i>Rosa nutkana</i>	3,000	1 gallon	
common snowberry	<i>Symphoricarpos albus</i>	2,000	1 gallon	
black cottonwood	<i>Populus balsamifera</i>	1,000	1 gallon	
common snowberry	<i>Symphoricarpos albus</i>	2,225	1 gallon	4 feet on center
ponderosa pine	<i>Pinus ponderosa</i>	356	1 gallon	10 feet on center
black cottonwood	<i>Populus balsamifera</i>	390	8'-10' live pole <sup>2</sup>	3 feet on center <sup>2</sup>
coyote willow	<i>Salix exigua</i>	200	5' live stake	varies <sup>1</sup>
coyote willow	<i>Salix exigua</i>	40	live clump	replace iris
redosier dogwood	<i>Cornus sericea</i>	50	5' live stake	varies <sup>1</sup>
black cottonwood	<i>Populus balsamifera</i>	360	8'-10' live pole <sup>2</sup>	3 feet on center <sup>2</sup>

<sup>1</sup> Spacing which varies depending on site conditions. Main goal is to plant in areas of reed canarygrass within this zone.

<sup>2</sup> Length of stake needed will vary by planting location based on depth to groundwater.

**Table 2: Recommended Seed Mix for Zones 1, 2, and 3**

Common Name	Species	Percentage of Seed Mix
Bluebunch Wheatgrass	<i>Pseudoroegneria spicata</i>	25%
Basin Wildrye	<i>Leymus cinereus</i>	25%
Bottlebrush Squirreltail	<i>Elymus elymoides</i>	15%
Sandberg's Bluegrass	<i>Poa secunda</i>	15%
Green rabbitbrush	<i>Chrysothamnus viscidiflorus</i>	10%
Rubber rabbitbrush	<i>Ericameria nauseosa</i>	10%

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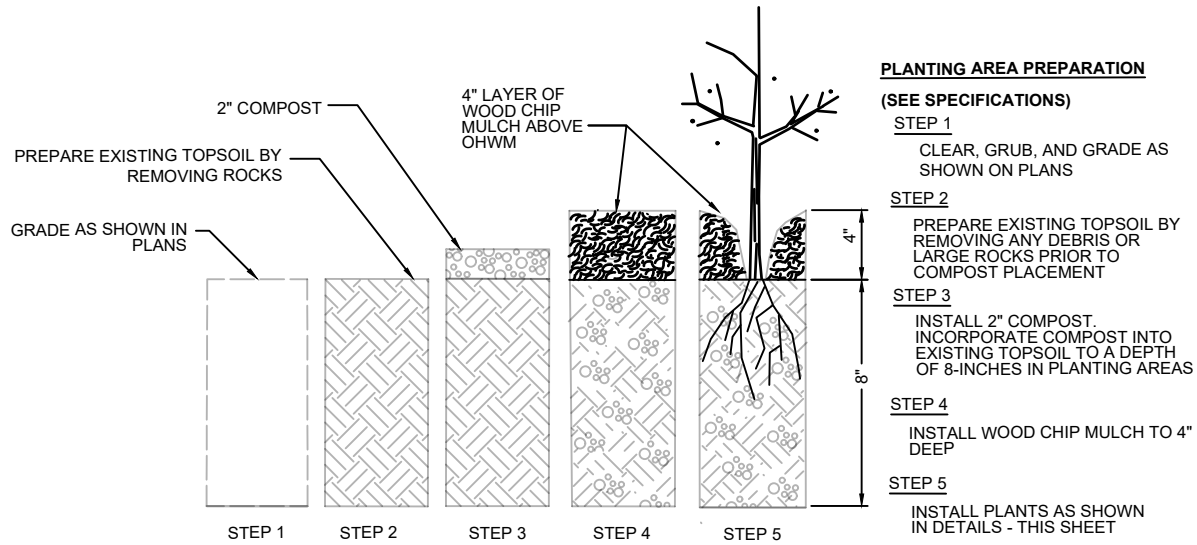
**APPENDIX A**  
**PLANTING DETAILS**

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# TYPICAL PLANTING DETAILS



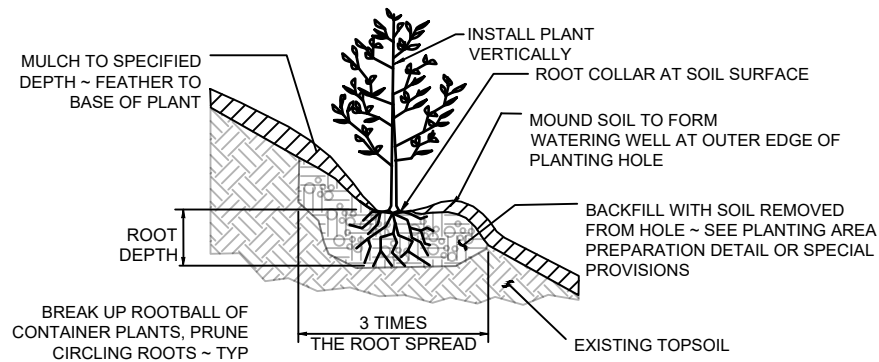
## SOIL PREPARATION SEQUENCE OF WORK

SCALE: NTS

1  
PLT3

### NOTES:

1. THIS DETAIL APPLIES TO ALL PLANTING AREAS, THAT HAVE BEEN DISTURBED BY CONSTRUCTION ABOVE THE ORDINARY HIGH WATER MARK (OHWM).
2. ONLY LOW GROUND PRESSURE EQUIPMENT ALLOWED IN PLANTING AND SEEDING AREAS AFTER TOPSOIL PLACEMENT.

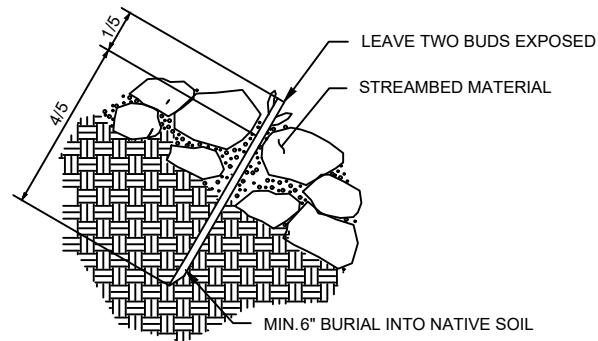


## SHRUB AND TREE PLANTING DETAILS

SCALE: NTS

2  
PLT3

# TYPICAL PLANTING DETAILS



## LIVE STAKE PLANTING DETAIL

SCALE: NTS

3

PLT3

### NOTES:

1. AVOID STRIPPING BARK OR BRUISING POLES DURING INSTALLATION. DO NOT USE AXE OR SLEDGE FOR DRIVING POLES. USE AN IRON BAR OR STAR DRILL TO PREPARE HOLES FOR LIVE STAKES.
2. COYOTE WILLOW MAY BE HARVESTED ONSITE.