

## **Exhibit C: Whole Watershed Restoration for the Dement Creek Subbasin Project Site Preparation and Planting Details**

### **C-1. Site Preparation Details**

Himalayan blackberry (HBB) and other noxious weeds are present throughout the project's riparian areas. Beginning in June 2023, 9.65 riparian areas will be cleared of HBB by the Contractor as a condition of this bid. It is imperative to retain any existing native vegetation in these areas. Noxious weeds will be mulched and spread within the riparian area. Within the Upper Dement Creek sites, this phase of site preparation will occur at the same time the landowner will be repairing an existing fenceline. The Contractor will work with the landowner and CoqWA to coordinate these actions. Starting in September 2023, weather depending, aquatic-safe herbicides will be used in all riparian areas to further control noxious weeds. Herbicide applications will be completed by October 31<sup>st</sup>. (See Figure 1 for Project Site Map).

**Upper Dement Creek Sites:** Approximately 9.5 acres of site preparation, as described above.

**Lower Dement Creek Sites:** Approximately 0.15 acres of site preparation, as described above.

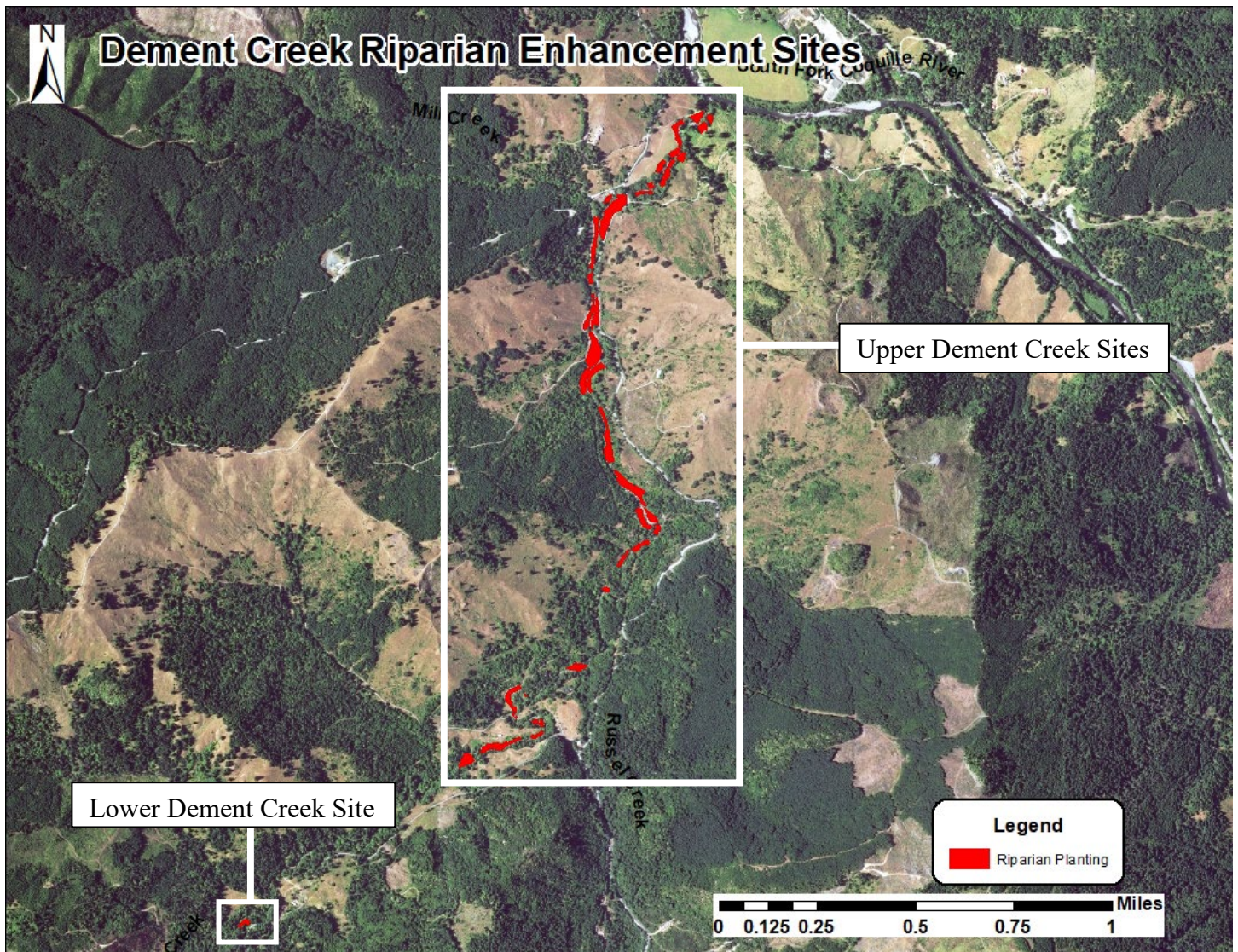


Figure 1: Dement Creek Project Site Map

## C-2. Planting Details

Planting will take place November 1, 2023 through February 28, 2024. A total of approximately 9.65 riparian acres will be enhanced with 9.5 acres of riparian buffer (Upper Dement Creek Sites) and 0.15 acres of riparian buffer (Lower Dement Creek Site). All slumping areas and lower banks will be heavily planted with willow stakes and the upper banks will be planted with other native conifers, hardwoods, and shrubs to add diversity (See Figure 2 for Planting Diagram). All bareroot plants will be protected with 3' Vexar tubing. Additionally, 300 black cottonwood trees will be protected with 12" diameter tree cages of 4' tall, 14-gauge galvanized steel, 2"x1" mesh welded wire. Planting will occur between November 2023 and February 2024. The contractor will be responsible for sourcing and delivery of plants and protection supplies, with the assistance from the CoqWA Riparian Habitat Project Manager. Local nursery stock will be acquired prior to outsourcing. All materials and supplies must be approved by the CoqWA Riparian Habitat Project Manager prior to purchase.



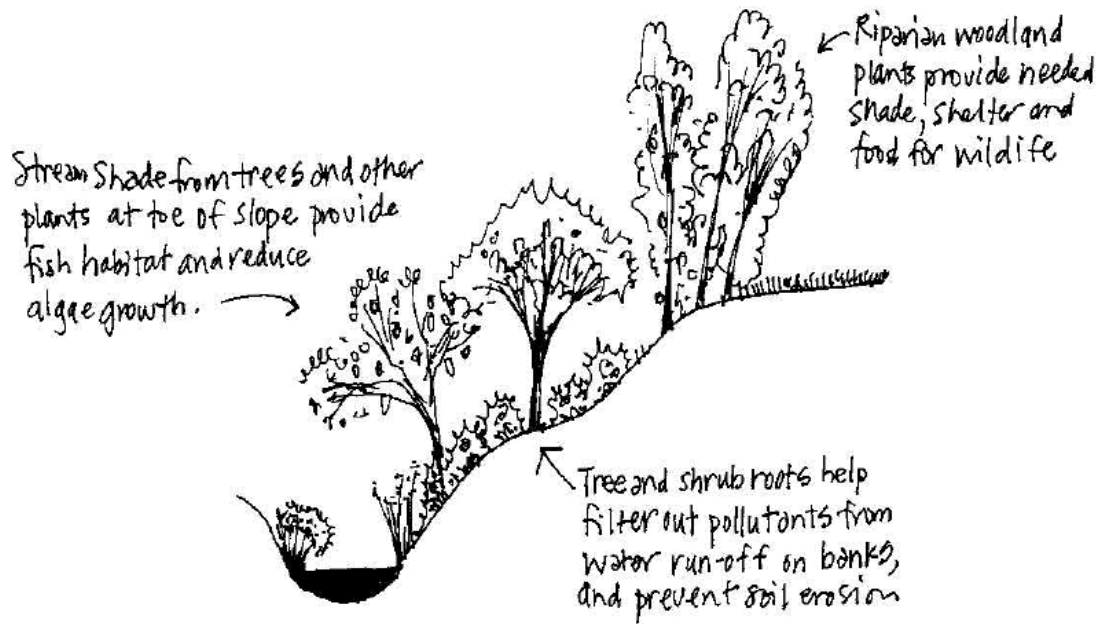


Figure 1 Planting Diagram

All planting sites will have site-specific planting plans (See Figure 2 for map of Planting Sites) that take into consideration terrain, existing riparian composition, animal activity, flood-prone conditions, soil saturation/drainage, and desired outcomes.

**Upper Dement Creek Sites:** 9.5 riparian acres to be enhanced by interplanting with 2,170 bareroot stems and at least 1,200 willow cuttings. Willow, red osier dogwood, and elderberry will be placed lower on the bank to provide shrub cover and reduce solar loading within a couple of years. This tier of planting also creates low velocity areas for juveniles to seek refuge within the channel. Larger hardwoods and conifers such as black cottonwood, Douglas fir, Sitka spruce, western red cedar, Oregon ash, big leaf maple, and others will be placed higher on the bank to replicate over story structure. (See Tables 1 for more information on species quantity, sourcing, and spacing)

Table 1: Upper Dement Creek Planting Prescription

General Planting Prescription for Upper Dement Creek			
Prescribed plants per acre (9.5 acres):		~200 stems per acre	
Site Competition:		Moderate	
Percent Protected:		85%	
Species	Stock Source	Spacing	Amount
Willow Cuttings	Landowner property/ local harvest	3' x 3' clusters	1200
Black Cottonwood	Local harvest and nursery stock	4'x4' clusters	300
Douglas Fir	Local nursery stock	12'x12'	10
Sitka Spruce	Local nursery stock	12'x12'	100
Western Red Cedar	Local nursery stock	12'x12'	200
Big Leaf Maple	Local nursery stock	8'x8'	200
Vine Maple	Local nursery stock	5'x5' clusters/ random	200
Oregon Ash	Local nursery stock	4'x4' clusters	470

Red Osier Dogwood	Local harvest/ nursery stock	3'x3' clusters	400
Elderberry	Local nursery stock	3'x3'	200
<b>Total</b>			<b>3370</b>

**Lower Dement Creek Sites:** Approximately 0.2 riparian acres to be enhanced by interplanting with 110 bare-root stems and 50 willow cuttings. In the northern planting area, willow and elderberry will be placed lower on the bank to provide shrub cover and reduce solar loading. Larger hardwoods, conifers, and other shrubs (i.e., red alder, western hemlock, and Port Orford Cedar) will be placed higher on the bank to replicate over-story structure. Salal will be planted between plantings upon the small slope in the eastern section of the site to address erosion concerns resulting from noxious weeds being cleared from the site. Ten vine maple will be interplanted in the smaller southern planting area. (See Table 2 for more information on species quantity, sourcing, and spacing)

Table 2: Lower Dement Creek Planting Prescription including plant species, sourcing, spacing, and quantities. Note: Plant species may vary depending on availability, site conditions and landowner preference.

<b>General Planting Prescription for Lower Dement Creek</b>			
Prescribed plants per acre (0.2 acres):			
Site Competition:		High	
Percent Protected:		70%	
Species	Stock Source	Spacing	Amount
Willow Cuttings	Landowner property/ local harvest	3' x 3' clusters	50
Port Orford Cedar	BLM	12'x12'	10
Western Hemlock	Local nursery stock	10'x10'	10
Red Alder	Local nursery stock	10'x10'	10
Cascara Buckthorn	Local nursery stock	5'x5'	10
Snowberry	Local nursery stock	5'x5'	15
Vine Maple	Local nursery stock	5'x5' clusters/ random	15
Evergreen Huckleberry	Local nursery stock	3'x3'	15
Pacific Rhododendron	Local nursery stock	4'x4' clusters	5
Red Elderberry	Local nursery stock	3'x3'	10
Salal	Local nursery stock	Random	10
<b>Total</b>			<b>160</b>