

truck-mounted drill rig to construct. It is anticipated that the bridge will take 2 months to construct. See Figure 3 for the location of the trail bridge.

2.3.5. Trail Construction

Trail construction will begin with grading of the trail footprint including any necessary excavation and fill. This step will begin during site preparation. Once the trail footprint is graded a gravel base will be placed and will be either can-compacted or compacted with a roller. After the gravel has been installed, the trail footprint will be paved with pervious asphalt. It is anticipated that the trail will take approximately 4 months to construct with portions of that occurring concurrently with other project elements. An excavator, front-end loader, paver, and roller will be necessary to complete this step. See Figure 3 for the trail footprint.

2.3.6. Planting

Planting of native riparian vegetation in the White River riparian habitat is proposed for this project to mitigate the clearing and work that will occur within the White River buffer. All temporarily impacted areas will be planted with native trees along with the remaining areas of lawn between the trail and White River. As part of site preparation, invasive and noxious weeds will be cleared from the project area. As stated previously, all existing trees will be protected within the riparian buffer for this project. This restoration planting proposes to plant approximately 160 trees.

A total of 0.52 acres of riparian plantings will occur. Planting will commence in the fall or early spring after trail construction. With close monitoring and watering occurring for 8 months after planting. A 10-year monitoring plan will follow with the goal of 80% native riparian cover after 10 years. Table 1 shows the proposed native species that will be planted with the restored area adjacent to the trail.

Table 1. Proposed buffer plantings

Scientific Name	Common Name	Planting Density	Size of Plants	Percentage in Plant Strata
Trees:				
<i>Populus balsamifera</i>	Black Cottonwood	12' on center	1 gallon	20
<i>Thuja plicata</i>	Western Red Cedar	12' on center	1 gallon	20
<i>Tsuga heterophylla</i>	Western Hemlock	12' on center	1 gallon	20
<i>Alnus rubra</i>	Red Alder	12' on center	1 gallon	20
<i>Pseudotsuga menziesii</i>	Douglas Fir	12' on center	1 gallon	20
Shrubs:				
<i>Symphoricarpos albus</i>	Common Snowberry	4' on center	1 gallon	20
<i>Acer circinatum</i>	Vine Maple	4' on center	1 gallon	20
<i>Holodiscus discolor</i>	Oceanspray	4' on center	1 gallon	20
<i>Salix sitchensis</i>	Thimbleberry	4' on center	1 gallon	20
<i>Oemleria cerasiformis</i>	Indian Plum	4' on center	1 gallon	20

In addition to the planting proposed above, additional invasive plants will be removed to improve habitat conditions. Following trail completion and permanent ground stabilization, an area of approximately 0.19 acres of invasive species just north of Bridge Street between the trail and OHW will be mowed, and planting pockets created for the installation of conifers. No further ground disturbance will occur in this area. Red cedar trees greater than 5 feet in height will be planted 15 feet on center. Survival of these trees will also be included in the 10-year monitoring plan with a goal of 80 percent survival. See Figure 3 for all proposed planting locations.

2.4. Stormwater

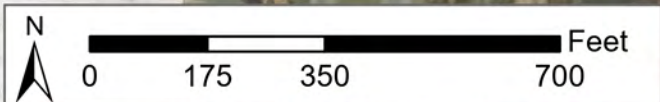
The project will require pavement overlay of roughly half of Fryar Avenue as well as the regrading and repaving of existing driveway connections. However, no new pollution generating impervious surface (PGIS) will be created by the project. There will be a net decrease of approximately 0.23 acre of PGIS within the project area as a narrow portion of the paved shoulder along Fryar Avenue will be converted to the proposed trail. The curb and gutter will be relocated, and channelization of the road will have minor alterations to accommodate the changes. The majority of the trail will be constructed with pervious asphalt allowing for stormwater to infiltrate directly through the pavement. The proposed pin pile bridge will have a HMA surface that will be non-pollutant generating impervious surface (NPGIS). Water will flow towards the trail on either side of the bridge so it can infiltrate through the pervious asphalt of the trail. In total, there will be a net increase in NPGIS of 0.13 acre. The project results in a small reduction in total impervious surface (Table 3).

There will be no stormwater discharged directly to the White River as a result of this project. New conveyance facilities will be installed as needed along Fryar Avenue where curb, gutter, and catch basins will have to be relocated to direct water into existing facilities. There is no additional stormwater discharge or treatment proposed by the project.

Impervious surface proposed is limited to the pin pile bridge which will add 1,790 SF of NPGIS. Approximately 2,700 SF of concrete will be removed from the buffer, resulting in a net reduction of 910 SF of impervious surface within the White River buffer. The proposed riparian plantings will also improve the buffer within the project area to better filter any potential runoff before entering the White River.

Table 2. Impervious surface within the project area

	NPGIS	PGIS	Total Impervious
Existing Conditions (acres)	0.66	2.71	3.37
Proposed (acres)	0.79	2.48	3.27
Net Change (acres)	0.13	-0.23	-0.1



- Soldier Pile Wall
- Concrete Removal
- ADA Ramps
- Adjacent Property Trail Access
- Driveway Connections
- Sidewalk-Trail Connection
- Trail Bridge
- Proposed Trail
- Planting Areas
- Weed Removal and Conifers

Figure 3. Project Elements

Fryar Avenue Trail Project
Sumner
Pierce County, WA
Sections 42, 48, & 49
Township 20N, Range 4E
August 5, 2022