

Tapteal Greenway Association
Proposed Yakima River Trail Improvements
Along the Duportail Trail Section
PPL-C-2018-0075

Project Description

The U.S. Army Corps of Engineers, Walla Walla District, (Corps) proposes to undertake improvements on a section of the multi-use (hiking, biking, horseback riding) Duportail Trail located between Chamna Natural Preserve and Duportail Street in Richland, Washington. The trail is located entirely on Corps-managed land.

The action would be accomplished by entering into a partnership with Tapteal Greenway Association to accomplish the work. Tapteal would furnish all the labor, design and material. The Corps would provide oversight and ensure environmental compliance requirements are addressed. All plans, and improvements would require prior approval from the Corps.

The trail improvements would consist of widening the trail to approximately a 4-foot wide gravel-based pathway and stabilizing eroded sections of the trail. This project is to be conducted in two phases. Phase I would consist of a 2,000 foot segment that begins where the trail branches from the bike path, approximately 900 feet from Highway 12 to an apartment complex located approximately 2,000 feet to the north. Phase II would continue along another 2,200 linear foot of the trail to Duportail Street and would be completed based on need and availability of resources (Figure 1).

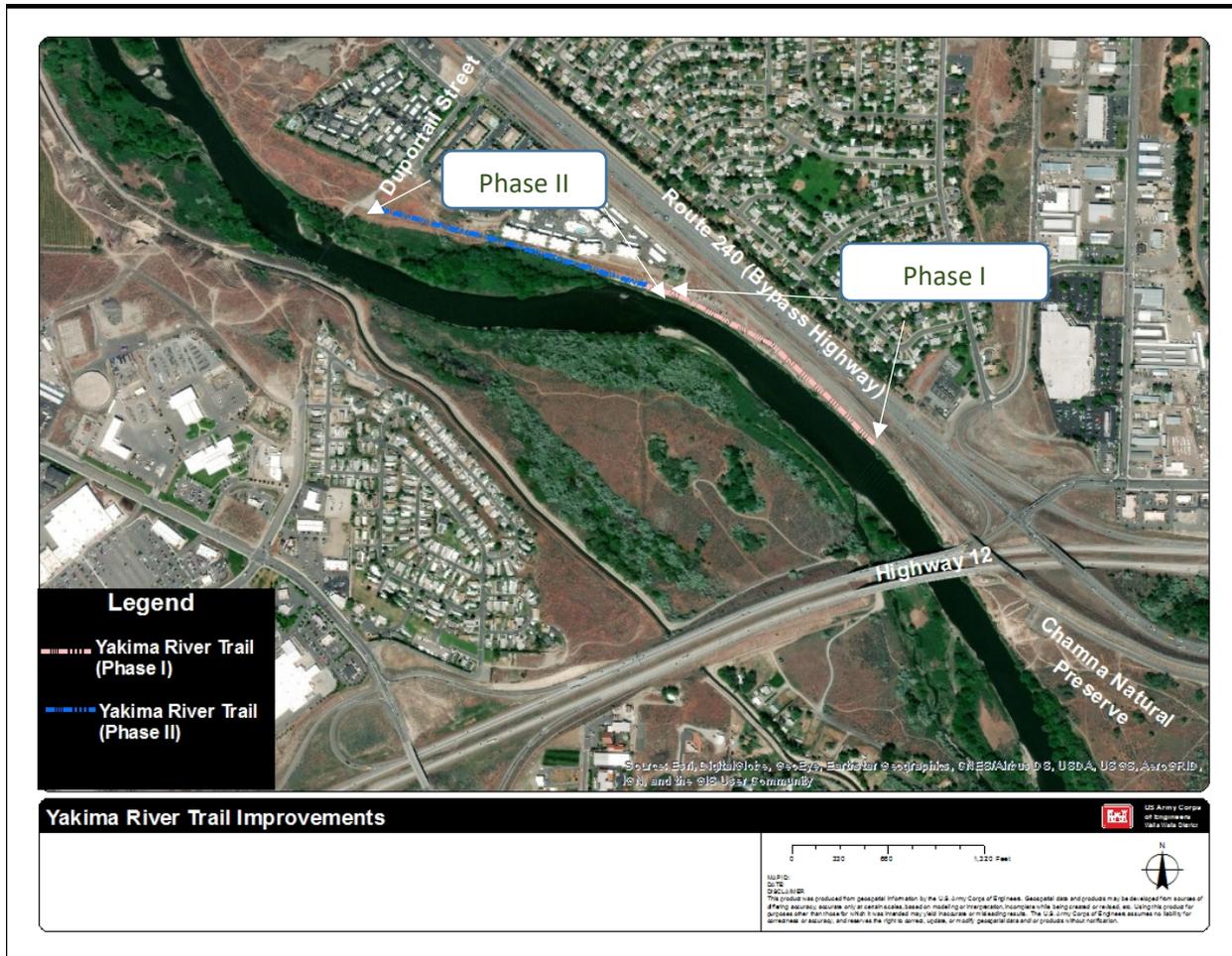


Figure 1. Overview of Trail and Project Improvement Areas.

Pedestrians and cyclists have difficulty moving through this section of trail. In addition, points along this section of the trail, have become unstable or are eroding due to a high volume of use, stormwater runoff, or other adjacent uses such as residential development and shoreline fishing.

The current trail is a sandy footpath, approximately two feet wide, that follows a shoreline terrace (Figure 2). The Richland bike trail also follows a parallel path, upslope of the Duportail Trail. The section of the trail closest to the bike trail is unstable and sloping toward the river (Figure 3). In addition, pedestrians have created footpaths from the trail down to the river.



Figure 2. View of the Current Trail.



Figure 3. Unstable Slope at the Start of the Trail.



Figure 4. Erosion Downslope of the Trail.

A terrace is eroding upslope of a section of the trail. The uphill slope of the trail is eroding at the start of the residential area. (Figure 5).



Figure 5. Erosion Upslope of the Trail.

Construction Methods

The Corps proposes to widen the current trail to a 4-foot wide gravel surface and stabilize areas of the trail that are eroding. The proposed trail improvements would consist of excavating six inches into the existing soil and widening the alignment to create a 4-foot wide path (Figure 6). This area would then be filled with 2.5" ballast rock (Figure 7). This rock would then be spread and compacted forming the base layer. Compaction would be accomplished using a small plate compactor. The compacted ballast rock would be topped with 5/8 inch gravel which would be wetted and compacted (Figure 8).

Areas where the trail is worn down below the desired grade would be filled using soil from the excavated trail sections. These areas would be topped with ballast and gravel rock the same as the rest of the trail.



Figure 6. An Example of Initial Trail Preparation Consists of Excavating Approximately 6-Inches Below Surface.



Figure 7. An Example of Spreading the Ballast Rock along the Trail Subsurface.



Figure 8. An Example of Finished Trail with 5/8 Inch Gravel Surface.

Tapteal Greenway Association proposes to stabilize the eroded section of the Dupportail Trail at the location where it connects to the Richland Bike Path trail with gabions, gravity blocks, and/or a rock walls (Figure 9).

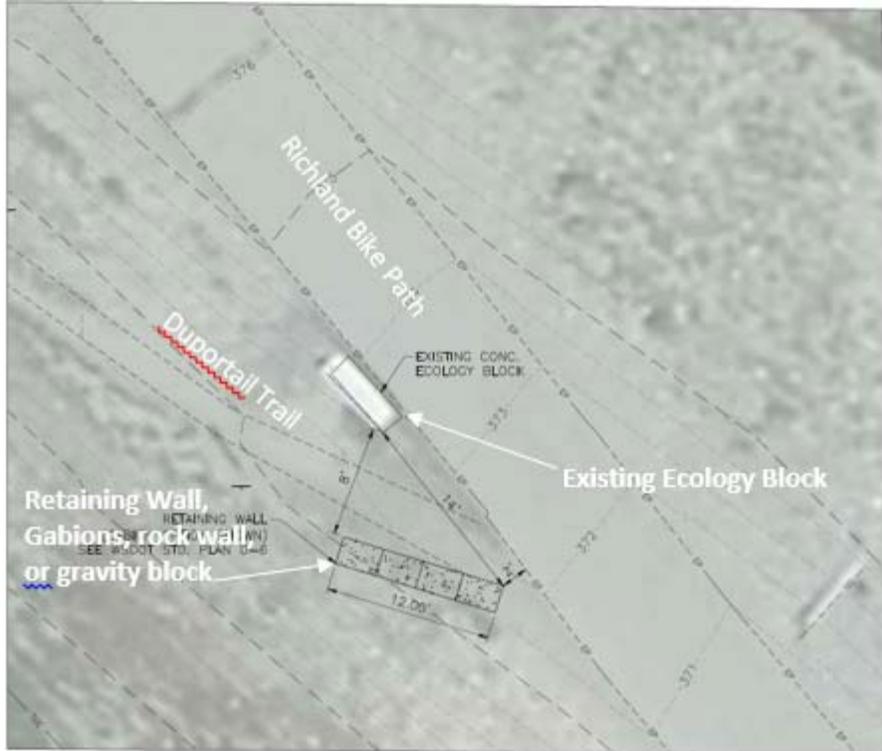


Figure 9. The Proposed Method for Stabilizing Erosion at the Bike Path.

Other sections of the trail that are sloughing may be stabilized using similar methods, vegetative mats, or other engineered soil stabilization methods, as well as planting native vegetation such as Antelope bitterbrush (*Purshia tridentata*), and big sagebrush (*Artemisia tridentata*).

Construction Schedule

Work would begin in October of 2018 as soon as conditions and resources allow. Given that the work would be primarily performed by volunteers, the work is expected to continue intermittently as weather permits and would resume in the spring. Anticipated completion for the first phase is April 2019. The next phase of work from the eastern edge of the apartment complex to Duportail Street would begin as resources allow.