

ID: CIP 505

Name: Knez Wetland & Riparian Enhancement

Study Area: Red Rock Creek

Location: Between Hwy 217 and Huntzinker Road

Problem Summary

The Red Rock Creek basin is highly developed with commercial and industrial properties. Major transportation corridors such as Hwy 217, Hwy 99 and I-5 also drain to the creek.

In its middle reaches the creek is flat and flows through jurisdictional wetlands.

In this location, the Knez Wetland natural area, which is owned by The Wetlands

Conservancy, serves a stormwater detention and water quality function downstream of the Tigard Triangle. A water quality pond just upstream manages runoff from Hwy 217.

The dense development in Tigard Triangle leaves little room to manage stormwater when redevelopment is proposed.

Project Description

The project provides an opportunity to benefit and enhance habitat functions of the wetland in cooperation with The Wetlands Conservancy. It could also be used to mitigate impacts and meet stormwater requirements for potential widening of Hwy 217, the proposed Southwest Corridor light rail, or private redevelopment projects in the Tigard Triangle.

The project will increase floodplain storage and enhance habitat in Knez Wetland. The area will be excavated to increase storage capacity.

A series of four very wide light touch grade controls will be constructed at the downstream portion of the site. Each structure will span approximately 200 feet. The grade controls will mimic the effect of beaver dams, creating low blockages that will encourage flows to spread out into the wetland floodplain.

The benefits of this project include:

- Wetland enhancement
- Wildlife habitat
- Water quality improvement
- Support redevelopment and transportation improvements in Tigard Triangle



Cost Estimate

Design & Permitting

Design (@ 20% of Construction)	\$245,000
Permitting, Basic + Enhanced	\$65,000
Project Administration (@ 12% Construction)	\$145,000
Total Design & Permitting	\$455,000

Construction

Tool Kit	Qty	Unit	Unit Price	Amount
Aboveground Storage	145,145	CF	\$3.50	\$509,000
Light Touch Grade Control	836	FT	\$55	\$46,000
<i>Subtotal</i>				<i>\$555,000</i>

Construction Administration

Mobilization (@ 10% of Construction)	\$125,000
Erosion & Sediment Control (@ 2% of Construction)	\$24,000
Temporary Water Management, Medium	\$25,000
Construction Contingency (@ 40% of Construction)	\$485,000
<i>Subtotal</i>	<i>\$659,000</i>
Total Construction	\$1,214,000

Other Implementation

Easement or Property Acquisition	\$45,000
Environmental Mitigation	\$175,000
Total Other Implementation	\$220,000

Total Project Cost (Rounded) \$1,900,000



Funding Source

Stormwater Fund
Partnership with Oregon Department of Transportation or TriMet.

Annual Operation & Maintenance

Operation and maintenance costs will be budgeted within the new proposed greenway O&M program and will be conducted in cooperation with The Wetlands Conservancy.



-  1, Above Ground Storage
-  5, Light Touch Grade Control

