

Project Rank: 13

ID: CIP 403

Name: North Dakota Street Stream Restoration & Detention

Study Area: Fanno Creek

Location: Fanno Creek Between SW North Dakota St and SW Tigard St

Problem Summary

Fanno Creek flows south from SW North Dakota Street toward the Dirksen Nature Park. As in much of the Fanno Creek basin, a Clean Water Services’ sanitary sewer transmission line and the Fanno Creek Trail are adjacent to the creek.

The greenway in this area is surrounded by residential and industrial development with very little existing water quality treatment. The greenway contains mapped wetlands.

The Tigard Street bridge constricts Fanno Creek, contributing to occasional street flooding. The bridge is in poor condition and was temporarily repaired in 2017. It will need replacement within ten years.

Steelhead in Fanno Creek are listed as threatened under the Endangered Species Act. Steelhead health and habitat are threatened by pollutants carried in runoff and by high stream temperatures from lack of shade.

Project Description

The project will add a series of four 100-ft wide structural grade controls crossing the channel and into the floodplain in the greenway. Grade controls will slow storm flows and reduce any channel erosion.

When the Tigard Street bridge is replaced, the greenway will be excavated to construct a large floodplain detention pond to mitigate the bridge project. The pond will store water during storms and may help prevent flooding at the bridge.

Two new pre-settling basins at outfalls on SW Tigard Street will allow sediment carried by the storm system to settle out prior to discharge to Fanno Creek. These structures will improve water quality.

The greenway in this area is owned by the City and is a candidate for riparian restoration to provide shade to cool Fanno Creek. Tree planting would likely be coordinated with Clean Water Services and be scheduled in conjunction with construction of this project. Costs for this are not included in this project.

Benefits of this project include:

- Control erosion
- Detain storm flows to reduce flooding and improve water quality
- Treat currently untreated runoff from roads and industrial development
- Mitigate bridge replacement
- Opportunity for multiple benefits



Cost Estimate

Design & Permitting

| | |
|---|------------------|
| Design (@ 20% of Construction) | \$130,000 |
| Permitting, Basic + Enhanced | \$45,000 |
| Project Administration (@ 12% Construction) | \$75,000 |
| Total Design & Permitting | \$250,000 |

Construction

| Tool Kit | Qty | Unit | Unit Price | Amount |
|-----------------------------|--------|------|------------|------------------|
| Aboveground Storage | 68,025 | CF | \$3.50 | \$239,000 |
| Pre-settling Basin, Manhole | 2 | EA | \$6,000 | \$12,000 |
| Structural Grade Control | 380 | FT | \$270 | \$103,000 |
| Subtotal | | | | \$354,000 |

Construction Administration

| | |
|---|------------------|
| Mobilization (@ 10% of Construction) | \$65,000 |
| Erosion & Sediment Control (@ 2% of Construction) | \$13,000 |
| Temporary Water Management, Small | \$10,000 |
| Construction Contingency (@ 30% of Construction) | \$190,000 |
| Subtotal | \$278,000 |

| | |
|---------------------------|------------------|
| Total Construction | \$632,000 |
|---------------------------|------------------|

Other Implementation

| | |
|----------------------------------|----------|
| Easement or Property Acquisition | \$15,000 |
| Environmental Mitigation | \$65,000 |

| | |
|-----------------------------------|-----------------|
| Total Other Implementation | \$80,000 |
|-----------------------------------|-----------------|

Total Project Cost (Rounded) \$975,000

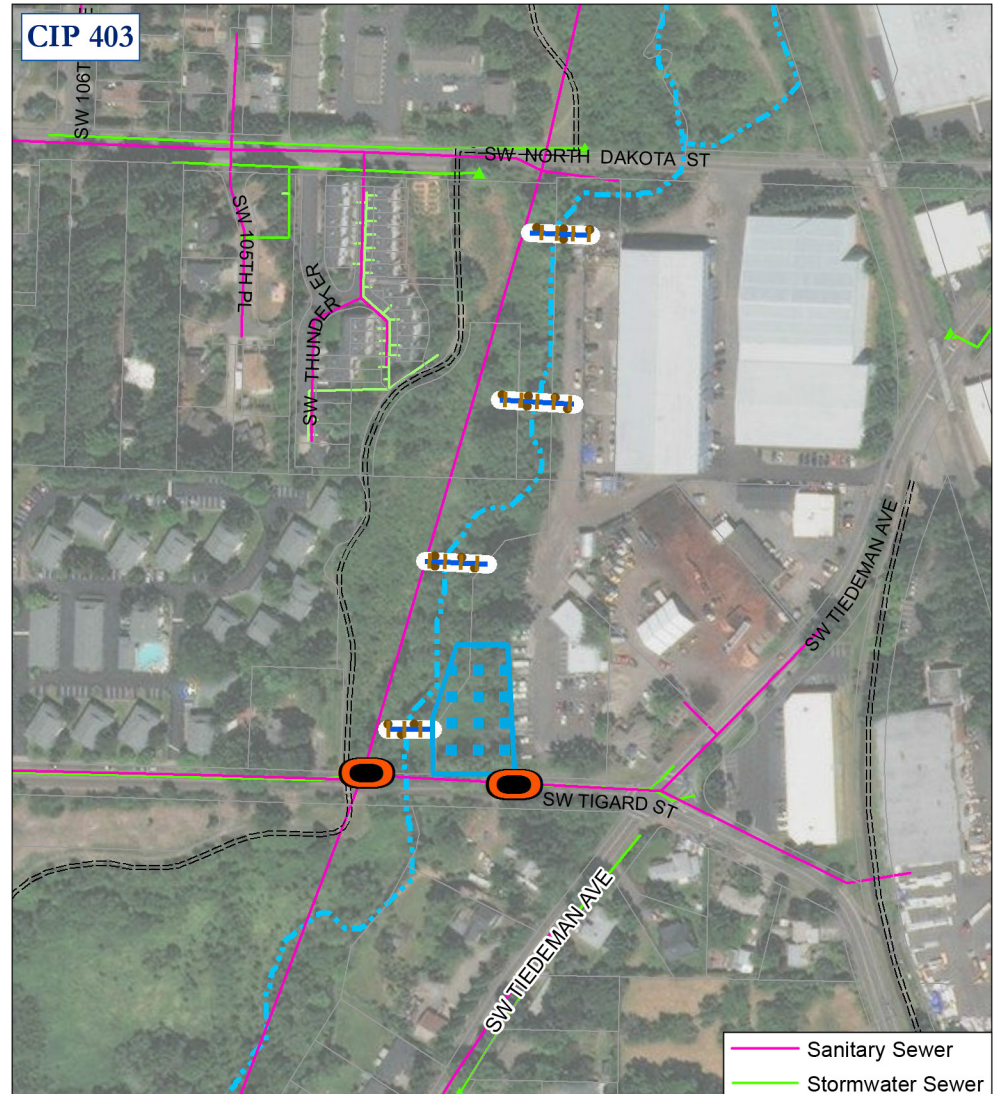
Funding Source

50% Stormwater Fund
 50% Transportation Funding (e.g. gas tax, grants)
 Costs of riparian restoration for shade are not estimated; these costs are included in the proposed Greenway Restoration, Establishment & Maintenance Program.

Annual Operation & Maintenance

Operation and maintenance costs will be budgeted within the following programs:

- Ongoing routine stormwater facility maintenance program
- Proposed greenway O&M program



- 1, Above Ground Storage
- 12, Settling Basin
- 15, Structural Grade Control

