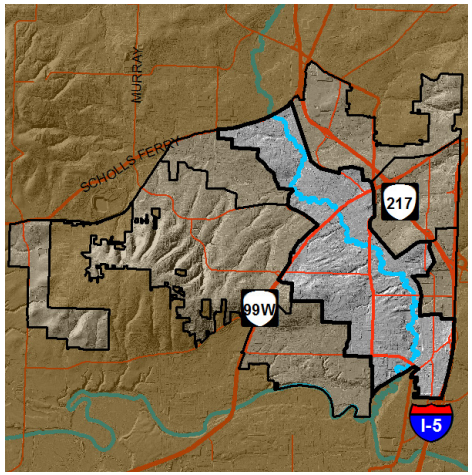
City of Tigard STORMWATER MASTER PLAN

Fanno Creek Study Area



Existing Conditions

Fanno Creek flows from the hills of southwest Portland through Beaverton and Tigard to the Tualatin River. The study area within Tigard is 3.75 sq. mi.

The basin is highly urbanized and sends runoff to the creek very quickly during storms. Despite these fast, high storm flows, Fanno Creek is notable for its lack of significant flooding problems. The creek's wide floodplain helps prevent flooding of structures and roads.

Many sections of floodplain are intact while elsewhere historic development approaches the stream. Several older bridges restrict the floodplain. The Fanno Greenway Trail follows the creek.

Beneath the creek, a sewer transmission line runs to Clean Water Services' Durham Wastewater Treatment Plant. Sewer trunk lines follow Fanno Creek's tributaries and tie into the transmission line.

Steelhead trout, coho salmon, and cutthroat trout are known by Oregon Department of Fish & Wildlife to use Fanno Creek. Beaver are active from Scholls Ferry Road to the mouth. Much of the Fanno Creek corridor is listed as Class I habitat in the Metro's Title 13 Inventory of critical wildlife habitat.

Tributaries

Hiteon Creek flows into Fanno Creek

continued on back page

Issues and Risks

The Stormwater Master Plan assessed the risk of erosion in Tigard's streams. The assessment analyzed the likelihood of erosion based on stream geology and the consequence of erosion based on the stream's proximity to important features such as roads, sewer lines, and buildings.

The assessment classified about 75% of the Fanno Creek study area as medium to severe for overall erosion risk. Of the highest consequence is the danger of undermining and breaking sanitary sewer pipes and undermining regional transportation infrastructure, including the regional trail.

Fanno Creek is water quality limited under the Clean Water Act for phosphorus, bacteria, dissolved oxygen, and temperature. Poor water quality can affect threatened fish, other wildlife, and humans.

Beneficial uses of spawning and rearing for threatened steelhead, which require cold water, are protected under the Clean Water Act through a Total Maximum Daily Load for temperature.

Fanno Creek is important to the cities of Portland and Beaverton, Metro Regional Council, Clean Water Services, and ODOT.

Fanno Creek's regional significance means there are numerous opportunities to partner with cities, service districts, transportation agencies, and non-profits to protect and restore natural resource values while maintaining its functions as a stormwater conveyance and a transportation and utility corridor.

Proposed Strategies and Solutions

Because Fanno Creek is already fully urbanized, the strategy in the study area is to mitigate for existing developed conditions. The many locations where the floodplain is still wide allow for a strategy that is focused on increasing the resilience of the stream itself.

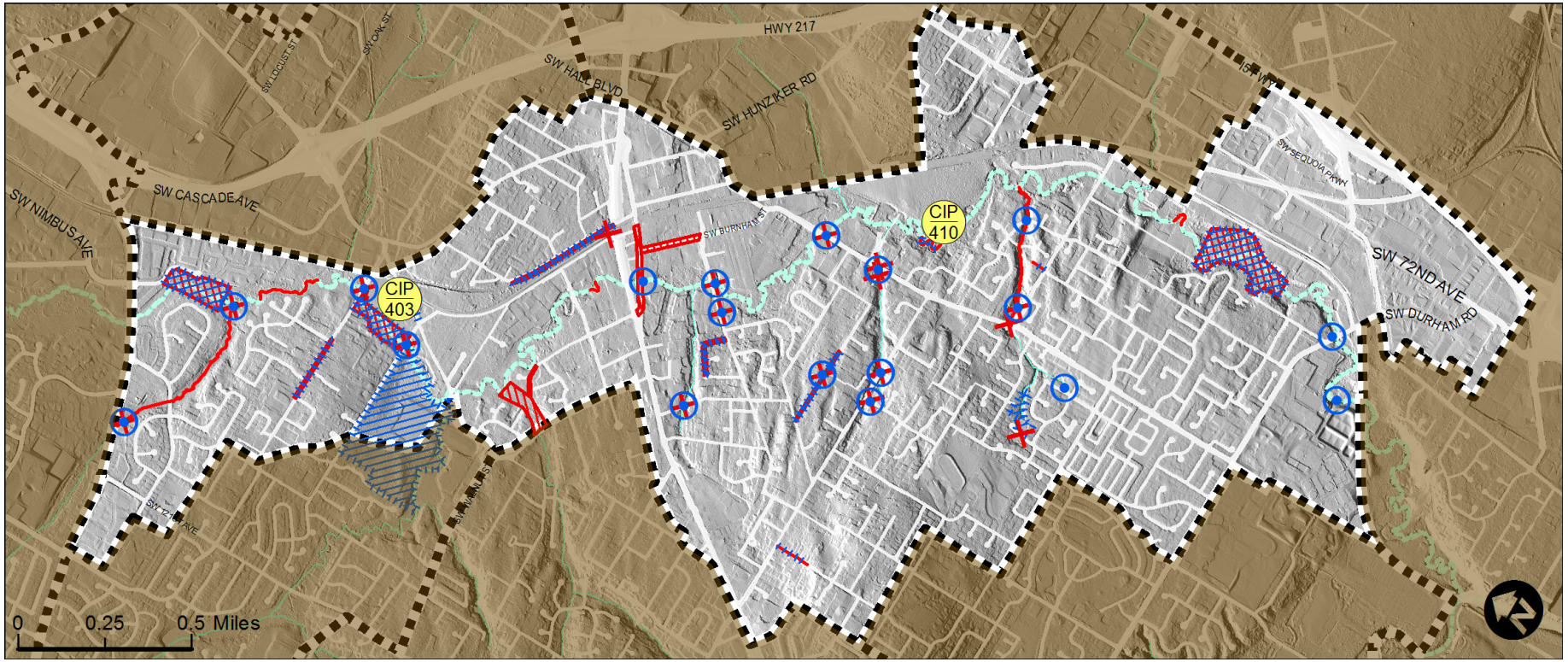
Proposed stormwater capital projects in Fanno Creek will protect channels from the erosive effects of fast, high flows resulting from the basin's geology and urban runoff. Protection of the sewer transmission line, trunk lines, and the regional trail system is a primary driver of the capital improvements.

The strategy for addressing water quality in Fanno Creek focuses primarily on water quality in tributary basins, discussed in other Study Area fact sheets.

Proposed CIPs

Fanno Creek Stream Stabilization at Arthur Court	
Rank: 8	CIP 410
North Dakota Street Stream Restoration and Detention	
Rank: 13	CIP 403
Total Cost: $1.7 million	

Fanno Creek Study Area



Legend

Known Issues **Potential Projects**

- Point / Point
- Line / Line
- Area / Area
- CIP no. — Capital Improvement Project
- Study Area

at Englewood Park. In 2009, several projects restored the floodplain and helped prevent channel erosion. Beavers are contributing to flooding of the trail but are also slowing erosive flows and improving fish habitat.

An un-named tributary to Fanno Creek flows northeast below Hwy 99 and meets Fanno Creek in downtown. Though small, this tributary is polluted with runoff from the highway and trash from commercial properties. The Methodist Church has attempted to restore the streambank near Frewing Street.

Three small tributaries, including Colony Creek, drain residential areas on the western edge of Fanno Creek between the library and Bonita Road. They are located primarily on private property or in homeowner association common areas. These reaches have relatively intact channels. However, in steeper sections erosion is beginning to isolate the channels from their floodplains. All three are head cutting where they meet Fanno Creek.