

Project Identifier	CIP: SW-1
Detailed Location	Springwater Planning District (Johnson Creek Watershed)
Model File	Model ALT03.xp
Objective(s) Addressed	Future Trunk Line Sizing, Calculating System Development Charges

Project Background

The Springwater Planning District is an approximate 1,565-acre area located partially within City limits but entirely within the UGB. Current land use within the planning district consists primarily of undeveloped lands. Minimal stormwater infrastructure is located within the planning district, however as this area develops future infrastructure will be needed to adequately convey stormwater drainage. While future development is difficult to predict, zoning and transportation system plans were reviewed to help inform preliminary trunk line design. Trunk lines were placed along future arterial roadway alignments and sized based on future land use and drainage assumptions. These assumptions were refined and validated by the City during modeling discussion workshops and follow up correspondence.

Project Description

This project provides piped stormwater infrastructure as shown on the accompanying “Springwater Planning District Proposed System Map”. Required piping to adequately convey drainage to Johnson Creek is summarized in the table below:

Springwater Planning District HDPE Piping	
Diameter (in)	Length (LF)
12	1,010
18	8,8460
24	11,345
30	7,095

All trunk lines were conceptually sized in accordance with the City’s current Public Works Standards for pipe design.

Design Considerations

Trunk lines are designed to convey the 10-year storm for infrastructure draining less than 250 acres. and the 50-year storm for infrastructure draining greater than 250 acres. Based on the assumed drainage patterns of Johnson Creek subbasins within the Springwater Planning District, all trunk lines are draining less than 250 acres. Should future drainage patterns change such that this is no longer the case, trunk line design storm criteria should be reevaluated.

Preliminary calculations were performed to identify conceptual pipe sizing. Design should be conducted to verify pipe capacity needs and pipe alignment.

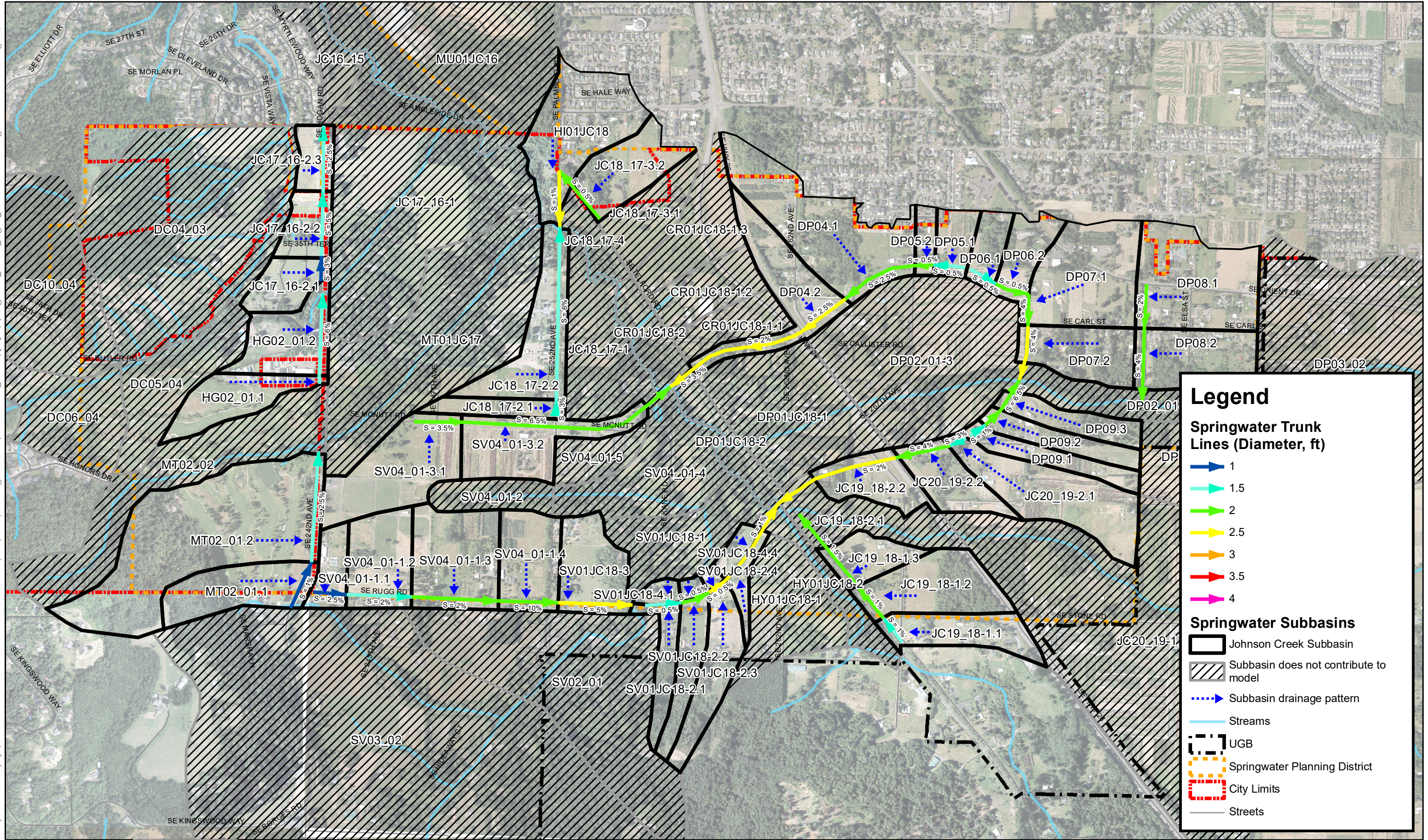
Planning-level Cost Estimate

Construction	\$6,728,000
Site Acquisition	N/A
Contingency (30%)	\$2,018,400
Capital Expense Total (including contingency)	\$8,746,000
Design/Construction Administration (30%)	\$2,623,800

Capital Project Fact Sheet**Project Name: Springwater Planning District Trunk Line Sizing**

Permitting (5%)	\$437,300
Administration (14%)	\$1,224,440
Capital Project Implementation Cost Total*	\$13,032,000

**Planning level cost estimates estimated in 2019 dollars, rounded to the nearest thousand.*



Legend

Springwater Trunk Lines (Diameter, ft)

- 1
- 1.5
- 2
- 2.5
- 3
- 3.5
- 4

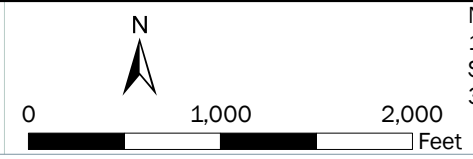
Springwater Subbasins

- Johnson Creek Subbasin
- Subbasin does not contribute to model
- Subbasin drainage pattern
- Streams
- UGB
- Springwater Planning District
- City Limits
- Streets



City of Gresham
 Date: April 2022
 Project: 151505

City of Gresham Storm Water Master Plan



Notes:
 1. Projection: NAD 1983 HARN
 Stateplane Oregon North FIPS
 3601 Intl. Feet

**Springwater Planning District
 Proposed System Map**