



Boardman Ave & Arista Drive Flood Attenuation Project

Summary of Alternatives Analysis Memo by Waterways Consulting, Inc

July 14, 2026

7/15/2026



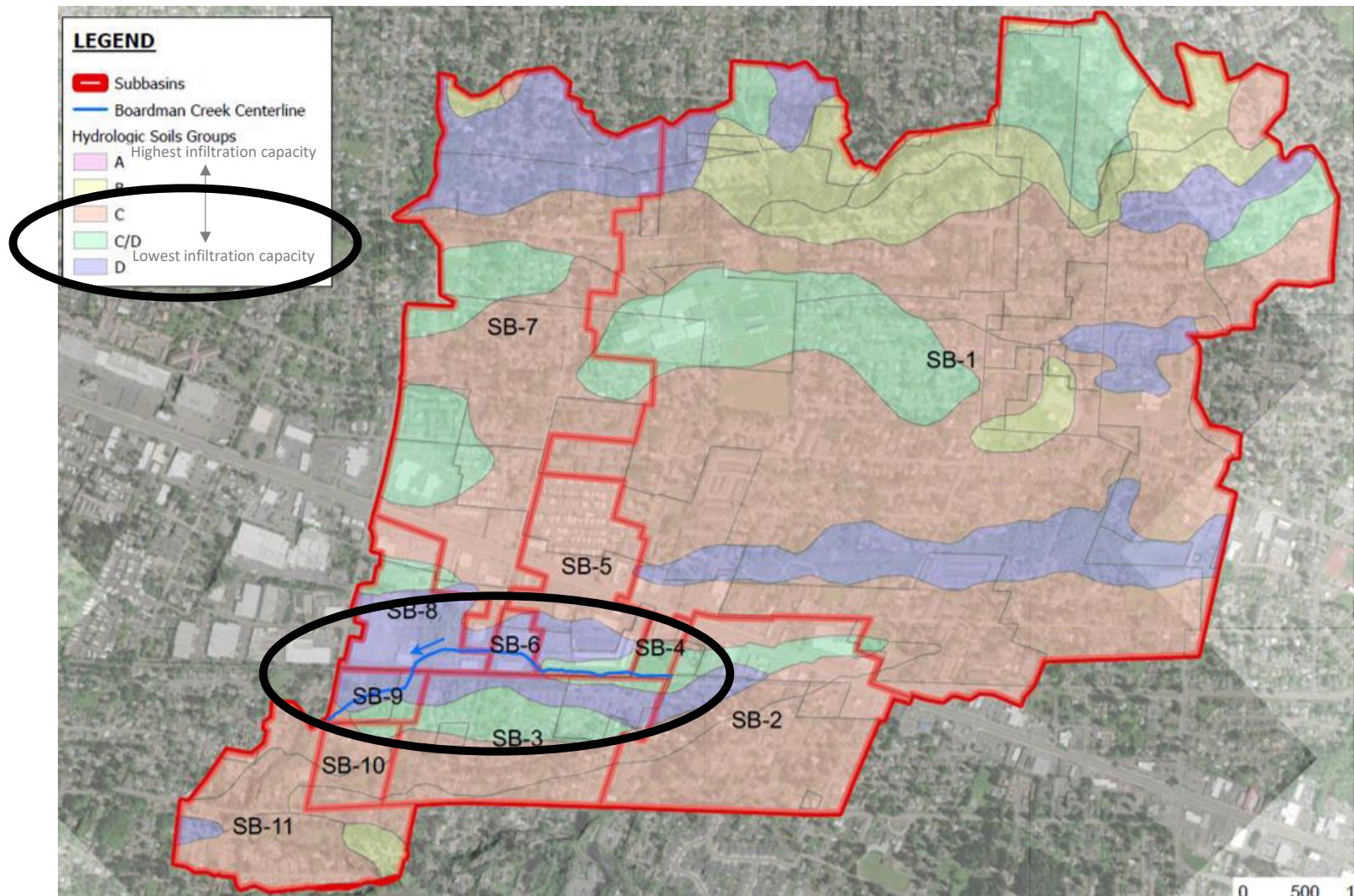
Boardman Creek Project Area



7/15/2026

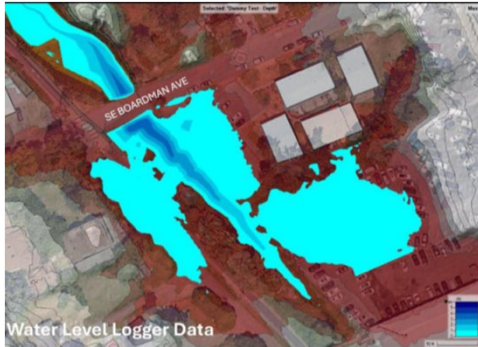
Boardman Creek Drainage Area

with hydrologic
soil groups

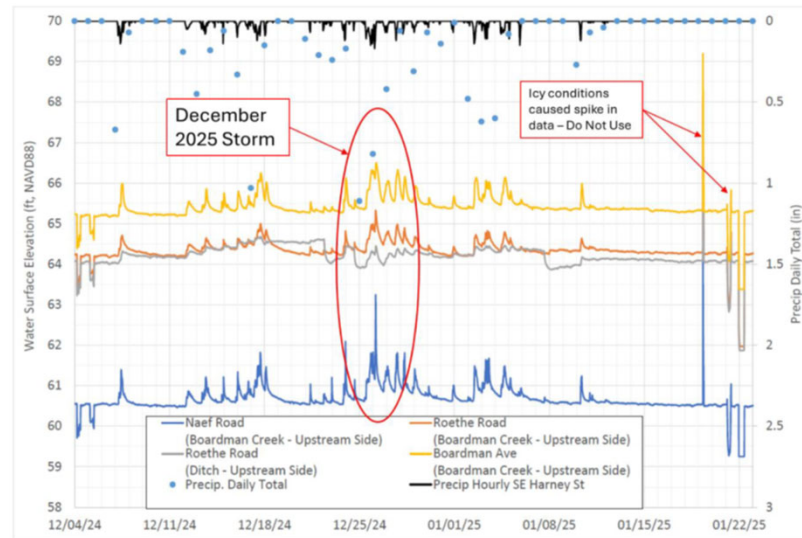


7/15/2026

Hydraulic Model Development & Calibration



Observed water levels during December storm



Modeled flooding results calibrated to December storm data



Flood Reduction Opportunities

- Beaver Dam Management
- Floodplain Grading and Wetland Enhancement
- Channel Dredging
- Crossing Improvements



Project Alternatives

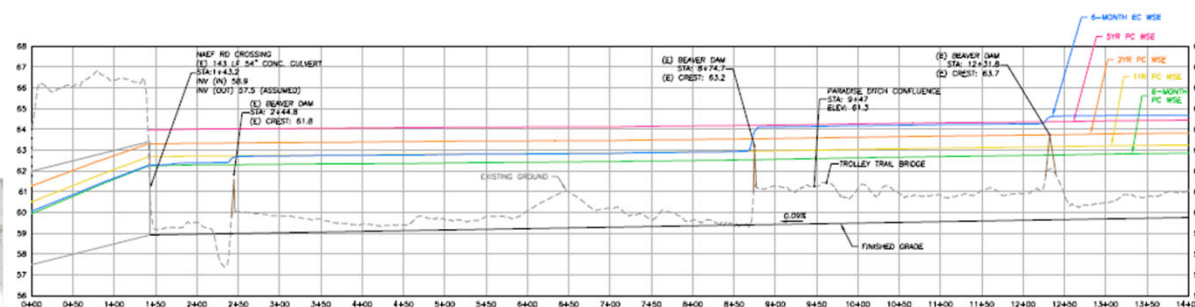
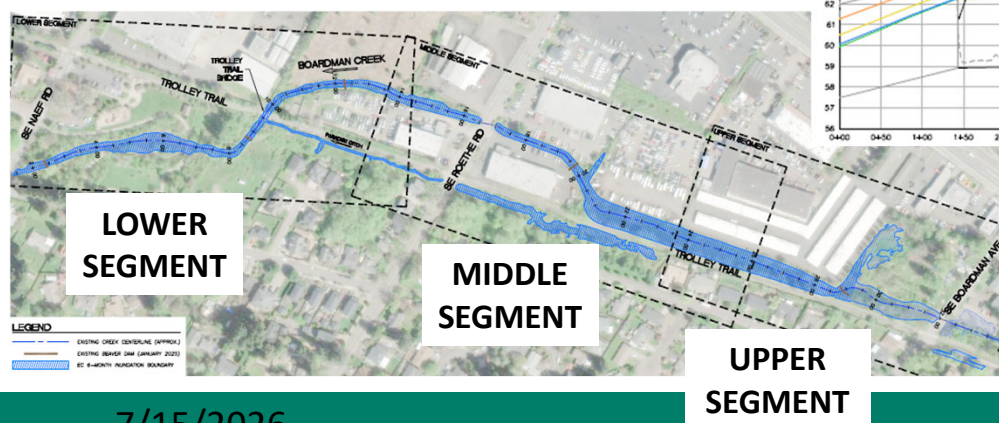
- Alternative A: Channel Excavation
- Alternative B: Channel Excavation and Boardman Road Culvert Replacement
- Alternative C: Beaver Dams Management and Flood Storage Pond Grading

Alternative Comparisons

Alternative	Sediment Removal	Removal of Beaver Dams	Box Culvert in ROW area	Off-Channel areas	Cost Estimate	Easement or Property Agreement needed
A	~8,100 CY	5	0	0	\$1,498,500	Yes
B	~8,200 CY	5	1	0	\$1,725,000	Yes
C	~10,900 CY	5	0	Up to 4	\$1,401,000	Yes

Hydrologic Model Results Comparison

Alternative	Lower Segment	Middle Segment	Upper Segment
A	Improvement Varies (ex. cond. to 5YR)	5YR	Improvement Varies (2YR - 5YR)
B	Improvement Varies (ex. cond. to 5YR)	5YR	Improvement Varies (5YR - 10YR)
C	Improvement Varies (ex. cond. to 2YR)	Improvement Varies (1YR – 2YR)	Improvement Varies (ex. cond. to 1YR)



7/15/2026

Project Next Steps:

- Discussions with all private property owners along the creek alignment.
 - Need easements or agreements for all properties
- Discussion of possible construction funding sources
 - Clackamas County road funds are only available for use in ROW.
 - Need to determine if OLWS funds can be used for private properties
- Long Term Maintenance
 - All Alternatives require ongoing maintenance on private properties
 - Who would be responsible for ongoing maintenance
 - What funding would be available for ongoing maintenance

Questions?



7/15/2026

