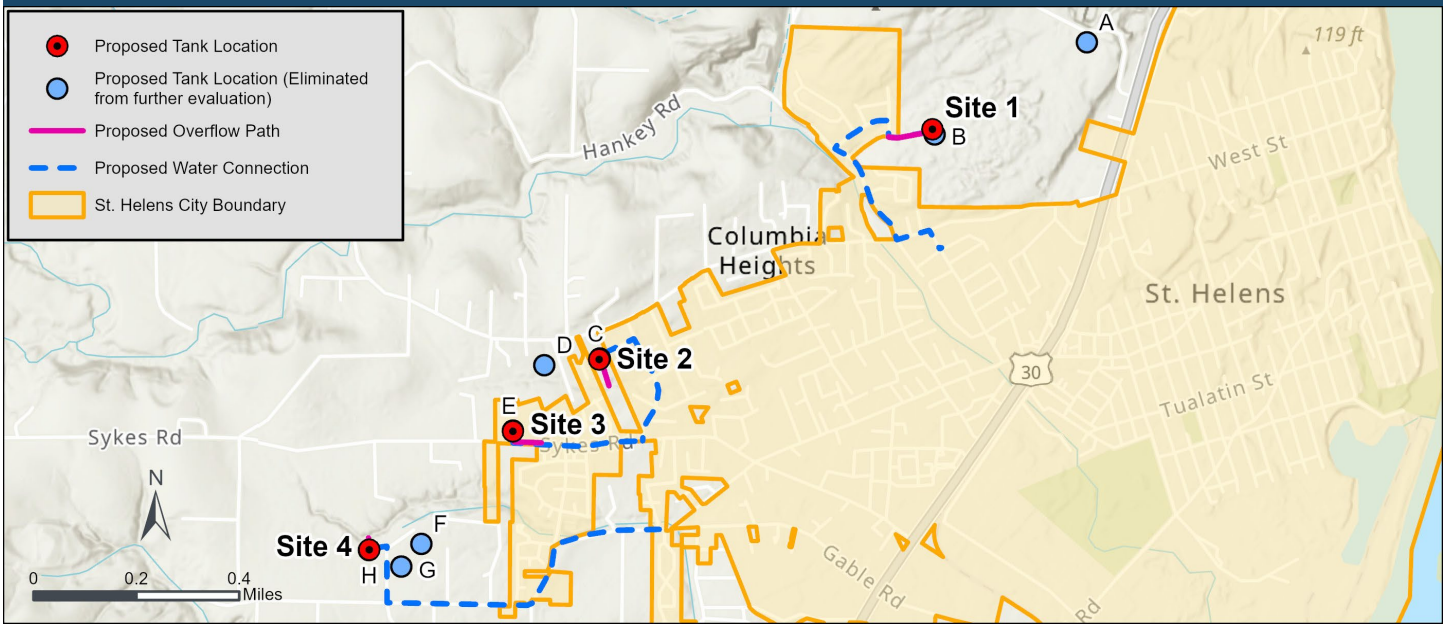
Reservoir Siting Study

The St. Helens 5.0-million-gallon reservoir project aims to construct a new water storage reservoir to address critical infrastructure needs within the City's aging water system, particularly with the recent loss of the City's oldest and second largest water reservoir.

The new reservoir will enhance operational storage capacity, address fire capacity needs, and improve resilience to seismic events, while meeting both current and future water storage demands.

The objective of this siting study is to determine the most suitable site to construct a new reservoir and allow the City to move forward with property acquisition, design, and construction.

Sites Evaluated



Evaluation Criteria

- Site Features
- Geologic Factors
- Environmental and Cultural Resources
- Constructability
- Community Impacts
- Costs

Evaluation Process

Site Identification: Desktop review of site and geologic features such as substrate, liquefaction risk, surrounding land use, site challenges and land availability. Eight sites evaluated.

Primary Site Analysis: Desktop review of water flow and pressure needs, environmental considerations, and evaluation of natural and cultural resources. Four sites evaluated.

Secondary Site Analysis: Geologic boring to confirm primary desktop results. Four sites evaluated.

Reservoir Siting Study: Preferred Site and Next Steps

Preferred Site: Site 2

Site Features

- Adequate size for reservoir
- Low slopes
- Excellent water system connections, fill rates, fire flow and pressure

Geologic Favorability

- Low landslide or liquefaction risks
- Best geotechnical stability of all sites
- Low substrate compressibility requires no additional foundation construction, reducing costs

Community Impacts

- Reduced cost for the community due to constructability, and geologic favorability
- 70-100 feet from existing homes with some existing vegetation for screening

Environmental and Cultural Resources

Environmental

- Site contains 0.61 acre of wetlands and 317 linear feet of perennial stream, which may be avoidable,
- Site is mostly developed (65%) with open space, suggesting fewer environmental constraints
- No aquatic special status species on site.

Cultural

- No previously recorded cultural resources
- Low to moderate probability of identifying cultural resources during construction

Constructability

- Access and abundant space allow flexibility in construction
- High geotechnical stability - would not require additional foundation treatment
- Landowner willingness to sell
- Reduced costs compared to other potential sites

Project Timeline

Site Selection
Winter 2025-2026

Land Acquisition
Spring 2026

Design and Permitting
2027-2028

Construction
2029-2030

Funding Development $15,000,000

Ongoing effort: City is seeking financial support from government grants, zero to low interest loans, private sector investments, and other development funds

Please visit https://www.sthelensoregon.gov/reservoirproject for the latest updates.
Want to learn more or share your input? Reach us anytime at
reservoirproject@sthelensoregon.gov

Scan the QR code to reach the project website.