



Somerset Highlands Fire Flow Improvements Project

ONLINE OPEN HOUSE ENGAGEMENT REPORT

PHASE: ALTERNATIVES ANALYSIS

August 2021

PROJECT OVERVIEW

The City of Bellevue is pursuing a project to improve fire flow in the Somerset Highlands neighborhood. During a fire, the Fire Department relies on the water system to deliver flow to hydrants. “Fire flow” refers to the volume of water that can flow from a hydrant without losing too much pressure.

The City continually evaluates its water system for opportunities to improve water service, including flow, pressure, and reliability. Because of the steep topography in Somerset Highlands, the water system relies on a series of pumps to bring water uphill, creating different pressure “zones” based on local elevation. Water pressure and fire flow can vary throughout each of these zones. The City is working systematically to make improvements so that all customers have the same minimum level of service.

The City is studying this range of alternatives to identify the best way to improve fire flow, with a goal of identifying the preferred solution by the end of 2021, and implementing a solution by 2024 – 2026.

ALTERNATIVES ANALYSIS ONLINE OPEN HOUSE

To inform the public about the options under consideration, the City of Bellevue hosted an online open house on the Engaging Bellevue platform. The online open house was open from July 20 to August 13, 2021.

The online open house provided an overview of the project need and various improvements being considered as part of this project. Participants then had a chance to take a survey, which provided detailed information about the pros and cons of each of the five alternatives under consideration. The online open house was translated into Korean, Simplified Chinese, Traditional Chinese, and Vietnamese.

The online open house is helping the City of Bellevue to better understand community impacts and preferences and weigh different technical options as they determine how to move forward.

PROJECT ALTERNATIVES

The City has identified several feasible ways to increase fire flow in the project area. Each of these five alternatives is designed to increase pressure and fire flow in portions of the project area to achieve a minimum level of service for all residents. The alternatives being considered include a combination of pump station and reservoir recommissioning, installation of City-owned and resident-owned pressure-releasing valves (PRVs), and replacement of water mains. One alternative will be selected to move through design and construction.

Project alternative	Project details
Alternative #1: Recommission pump station and reservoir	<ul style="list-style-type: none"> • Recommissioned or rebuilt pump station and reservoir • 1,120 ft of new water main
Alternative #2: Divide service area	<ul style="list-style-type: none"> • 2 new City-owned PRVs • Individual PRVs • 2,730 ft of new water main
Alternative #3: Create a new Somerset Highlands service zone	<ul style="list-style-type: none"> • 1 new City-owned PRV • Individual PRVs • 3,060 ft of new water main
Alternative #4: Increase water line capacity	<ul style="list-style-type: none"> • Adjustment of City-owned PRVs • 10,090 ft of new water main
Alternative #5: Extend water main and create new zones	<ul style="list-style-type: none"> • 3 new City-owned PRVs • 1 new check valve • Individual PRVs • 5,520 ft of new water main

OUTREACH & PROMOTION OVERVIEW

We used multiple channels to inform the community about the online open house, including:

- Informational postcard sent to 3,577 addresses, with project information translated into Korean, Simplified Chinese, Traditional Chinese, and Vietnamese
- [Project webpage](#)
- Emails to impacted parties, including Somerset Elementary and Forest Ridge School administrations and local neighborhood associations
- Neighborhood social media outreach via NextDoor, translated into Korean, Simplified Chinese, Traditional Chinese, and Vietnamese

ONLINE OPEN HOUSE ENGAGEMENT METRICS

The online open house on the project webpage had a total of 290 visits¹ from 227 unique visitors:

- 57 unique participants clicked on one or more project component within the online open house
- 13 unique participants answered the survey or submitted a question via the questions tab, of whom:
 - 10 people submitted surveys
 - 3 people submitted questions via the online form

¹ "Visits" refers to the total number of page views on the online open house.

FEEDBACK THEMES

In our engagement with residents of the Somerset Highlands area regarding the Fire Flow Improvements Project, we heard the following themes through the online open house survey, questions via the online open house form, and email communications:

- **Concerns about long-term noise and exhaust disruptions if the pump station is recommissioned [alternative #1].** While not all respondents were opposed to the recommissioning of the pump station, those who were cited the longer-term potential for noise and exhaust.
- **Preference for minimizing the number of PRVs installed on private property.** Many participant responses included concerns about PRV installation on private property; those respondents did not like the idea of having to coordinate with the City for installation and maintenance of the PRVs.
- **Questions about resiliency and redundancy of the water system.** Participants preferred options that promoted increased redundancy and inquired about which alternatives would reduce vulnerabilities to seismic activity. Some also asked about the potential impact of the alternatives on the surrounding environment.
- **Overall concern about water pressure and support for the improvements project.** Residents expressed their general concern about low water pressure and asked whether pressure could be adjusted in other parts of the neighborhood.