



1220 Lakeway Drive
Bellingham, WA 98229
(360) 734-9224

December 6, 2021 (revised January 4, 2022)

Re: Eagleridge Water Booster Conversion Project

Dear Eagleridge Resident:

As a valued customer of the Lake Whatcom Water and Sewer District, please accept this letter as notice of a pending District project associated with the water distribution system serving the Eagleridge neighborhood.

Project Summary

The District provides water service to Eagleridge residents via a connection with the City of Bellingham's water system and sewer service via a series of gravity sewer mains that flow to the District's sewage conveyance infrastructure located in Northshore Road. The neighborhood's water and sewer infrastructure was constructed by the private developer of the subdivision in 1988 and dedicated to the District for operation and maintenance. When the water system was originally designed and constructed, the City's water pressure at the location of the connection between the two systems was not sufficient to serve Eagleridge. As a result, a booster pump station was constructed at the location of the connection that is comprised of three pumps for domestic (general) water service, two pumps for fire suppression, pump controls, and an auxiliary diesel generator (to ensure continuous service through power outages).

At some point between system construction in 1988 and 2016, the City increased the water pressure in the service area that feeds the Eagleridge water system. During that same timeframe, the District began planning for replacement of the pump control system, which was approaching the end of its useful life. As a component of this planning, the District performed a detailed hydraulic analysis to determine if the City's system pressure is sufficient to meet Washington State Department of Health (DOH) regulatory requirements throughout Eagleridge. The analysis concluded that the domestic pumps are no longer necessary and can be removed from service, with the City's pressure being sufficient to meet regulatory requirements for the domestic demands of the Eagleridge system. The fire pumps, however, must remain to ensure sufficient flow and pressure in a fire flow scenario. Based upon this analysis, DOH approved removal of the domestic pumps from service.

Project Benefits

The primary project benefit will be near- and long-term cost savings realized through not replacing the existing three domestic pumps that are approaching the end of their useful life, which is estimated at a replacement cost of \$122,000, as well as ongoing costs to operate the domestic pumps (electricity to operate and routine maintenance), which is estimated at \$50,000 over the next 20 years. An additional benefit will be increasing reliability in the water distribution

system—by shifting to an entirely gravity system under normal conditions, the system will no longer be reliant on mechanical pumps to feed the system.

Service Impacts

By converting to a gravity system that relies on the City of Bellingham water system pressure, you may notice a slight decrease in the water pressure at your home. When the project is complete average pressures at water meters throughout the Eagleridge subdivision will range from approximately 71 psi (pounds per square inch) in the lower elevations and 45 psi in the higher elevations. Pressures at water meters at the higher elevation on Donald Avenue will be around 37 psi on an average day. For reference, domestic water system pressures are typically between 40 and 70 psi.

Project Schedule

With DOH approval of the revision to the water system, the District anticipates completion of the project by Spring 2022.

Again, thank you for being a valued customer of the District and your understanding in the District's pursuit of limiting rate impacts through minimizing operational costs. Should you have any questions regarding this project, or any other questions related to District services, please do not hesitate to contact me at 360.734.9224. Also, additional information specific to this project is available on the District's website (www.lwwsd.org)—select the "Eagleridge Water Booster Conversion Project" from the "Projects" dropdown menu in the website banner.

Sincerely,

Lake Whatcom Water and Sewer District



Justin L. Clary
General Manager