

## Historical background information on a new reservoir in East Chelan

The original 250,000 gallon Wilmore Reservoir was designed in 1999 for the Chelan River Irrigation District to provide 1,500 gpm of Fire Flow to what is now the Washington Street pressure zone (we are now referring to this as “East Chelan”). The current Fire Flow standard for that zone is 2,750 gpm for 2 hours (330,000 gallons).

Fire Flow of 2,750 gpm for 2 hours is currently met through a combination of storage in the Wilmore Reservoir (1,500 gpm for 2 hours = 180,000 gallons) and the Washington Street Fire Pump (1,250 for 2 hours = 150,000 gallons).

The City’s 2018 Water System Plan that was completed by Gray & Osborne, Inc. had construction of a second Wilmore Reservoir scheduled for 2020. This project planned a reservoir to supplement the existing Wilmore Reservoir in the Washington Street pressure zone with an additional 200,000 gallons to increase Fire Suppression Storage to the zone.

Due to site constraints at the Wilmore Reservoir location and the desire to have the Washington Street pressure zone Fire Flow goal no longer reliant on the combination of the Wilmore Reservoir and Washington Street Fire Pump, alternative Reservoir locations and sizes were considered. The analysis concluded that an East Chelan Reservoir (at a higher elevation than Wilmore) and Booster Pump Station is currently the preferred option. This project offers additional benefits to other areas of the water system while also meeting the FF goals for the Washington Street pressure zone.

The East Chelan Reservoir and BPS project proposes to improve reliability by eliminating the need to nest standby and FSS, ensure that the FSS goal volume (2,750 gpm for 2 hours or 330,000 gallons) is fully provided by storage.

This preferred reservoir location is compatible with a future water system extension to the North Shore. This provides an additional benefit to the Darnell’s/Chelan Hills Pressure Zone by allowing the East Chelan BPS to act as a redundant pump station (or additional capacity) to augment Darnell’s BPS, increasing supply and eliminating the current single point of failure to the North Shore.

In addition, the Clifford Street water main extension (to be completed by ABC Holdings group) will provide a redundant feed into the Washington Street Zone which eliminates the current single point of failure to this zone. This project will also reduce high pressure events seen by some customers when the fire pump runs, while also increasing capacity to the zone.

Also, the Washington Street booster station is at capacity. Larger pumps will be installed to support additional customers in the Washington Street zone.

In July of 2021 the City began the process of amending our water system plan to include the East Chelan Reservoir. Unfortunately this process is not yet complete as it is dependent on review and approval by the Washington State Department of Health (DOH). It seems that DOH has been very busy and hasn’t had the chance to complete their review. We are hopeful this will be complete in 2023.

All said, this project has been part of the City’s planning process but has not yet been considered as part of a rate study. With the City’s policy of “development paying for development”, having existing water

rate payers contribute to a project that has a direct benefit to potential development has not been considered. You can see that almost the entirety of the evolution of this project happened prior to TIFF being a funding consideration so we were working towards different solutions for funding such as an LID that would avoid direct impact to existing water rate payers. Unfortunately the costs that we were estimating for an LID were too high for land owners and potential developers.