



Planning • Management • Engineering
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September 27, 2019

Washington State Utilities and Transportation Commission
621 Woodland Square Loop SE
Lacey, WA 98503

Re: Silver Hawk initial Tariff Filing

Received
Records Management
09/27/19 03:07
State Of WASH.
UTIL. AND TRANSP.
COMMISSION

Enclosed is the initial tariff filing for the Silver Hawk Water System. Silver Hawk currently serves 226 single family residential customers and is approved for 300 single family residential connections by the Washington State Department of Health. It is anticipated that the system will serve all 300 connections within the next 2-3 years. It is also anticipated that the system will never expand beyond the existing 300 approved connections.

The Silver Hawk Water Company has made an initial Capital Investment of approximately \$2,065,000. The water system developer did not understand the how UTC regulation worked, nor how records should be kept and documentation organized. Therefore, it has taken some time and effort to find and organize old records. It is anticipated that the actual capital expense for the water system is greater than the amount for which we currently have documentation. As additional documentation becomes available, we can provide it to the UTC if and as needed.

Silver Hawk Water Company began service in May 2016.

Washington Water Company was the initial manager for the Silver Hawk Water System and designed their initial (and current) rate structure as follows:

\$21.75 – Base Rate
\$3.45/per 100 cf. – 0-600 cf.
\$4.45/per 100 cf. – 601-1,600 cf.
\$5.50/per 100 cf. – anything over 1,601 cf.

In our experience, with new water systems such as Silver Hawk, customers tend to have elevated water use in the first several years as new homes need to water their lawns more

extensively to establish their landscaping. We anticipate that once Silver Hawk reaches build-out, water use will decrease.

Northwest Water Systems, Inc (NWS) provides Satellite Management Agency services as required by the WSDOH. Their fee structure is based on the number of connections. For every new connection added, NWS charges an additional \$13.20 per month for management and utility billing services.

The following is a brief analysis for some of the capital investments associated with the Silver Hawk Water System:

Well Drilling

The Silver Hawk Water System is served by a single, high production well. The well is 595 deep with the upper portion drilled at 16" and the lower portion drilled at 12". A surface seal extends over half the depth of the well to effectively seal the upper aquifer from the lower aquifer from which the well withdraws water. These were conditions placed on the well by the Department of Ecology and are the reason well drilling expenses were significantly greater than one might expect for a 300-connection water system.

Distribution System

Silver Hawk Provides fire flow throughout the distribution system. The water mains are comprised of approximately 900 feet of 10" water mains, 10,500 feet of 8" water mains, and 3,900 feet of 6" water mains. In the professional experience of the NWS engineering staff, water distribution systems with fire hydrants, isolation valves, meter setters, etc. typically cost in the range of \$60-\$100 per lineal foot for 6-inch and 8-inch mains. Silver Hawk's documented distribution main installation costs were approximately \$62/ft, which also includes a significant portion of 10" pipe. While this is within the range of expected costs, it is at the very bottom of the range. Therefore, not only is this portion of the investment reasonable, it is less than one would have expected.

Engineering

For a small water system such as Silver Hawk, one would expect engineering to be 7-15% of the total project cost. Engineering and surveying fees documented were equivalent to approximately 6.8%, and 10.1% if the hydrogeology services are included.

Tract 'S'

Tract S is the parcel upon which the well and reservoir are located. Had the development been able to acquire another source of water (such as the extension of a city water system), the land upon which the well and reservoir are located could have been legally platted into two additional lots. The first two lots sold in 2016 were sold for \$100,000 each. Therefore, the value assigned to tract 'S' by the developer for the transfer of the lot to the Silver Hawk Water Company was \$200,000.

Easements

The easements were calculated at \$95,000. The cost was determined through a professional real estate estimate.

Water Treatment

The Silver Hawk Water Company has received multiple water complaints. While the water initially met all WSDOH requirements, many customers find the aesthetic quality of the water unacceptable. Iron and manganese levels have increased, along with hydrogen sulfide. The Silver Hawk Water Company is working with their engineer, hydrogeologist, and Satellite Management Agency to develop a solution. It appears as though the only realistic, long-term solution is source water treatment using oxidation-filtration technology. This is anticipated to cost approximately \$350,000 and add significantly to the operational costs of the water system as well. It also appears as though treatment will be required by the WSDOH.

Contributions in Aid of Construction

The Water System has received \$934,000 in CIAC funds. It is anticipated to receive an additional \$204,000 for a total of \$1,138,000. Crediting this against the approximate Capital Investment of \$2,065,000, an adjusted Capital Investment of \$927,000 will have been made.

Summary

The Silver Hawk Water System's water rates are typical of the drinking water industry. Their rates are heavily apportioned toward usage, allowing customers to largely control their water use and water utility bills.

If you have any questions, or would like any follow-up information, please feel free to call or e-mail me. Cell: 509-934-5250, todd@nwwatersystems.com.

Sincerely

NORTHWEST WATER SYSTEMS, INC.



Todd Krause, PE

Encl: Initial Tariff
Customer Notice
Spreadsheets with financial documentation