

Silverhawk Utilities Inc. Annual Newsletter



Volume 9, Summer 2016



TREATMENT PLANT PERFORMANCE UPDATE

During the past year, Silver Star Sewage Treatment plant has been operating with very high efficiency, and consistently producing very high quality effluent over and beyond the criteria outlined by the BC Ministry of Environment (MOE). As a result, the quality of water in the effluent exfiltration pond that stores the water for the irrigation season has improved multiple folds.

These are the latest results from testing of the effluent in this storage pond:

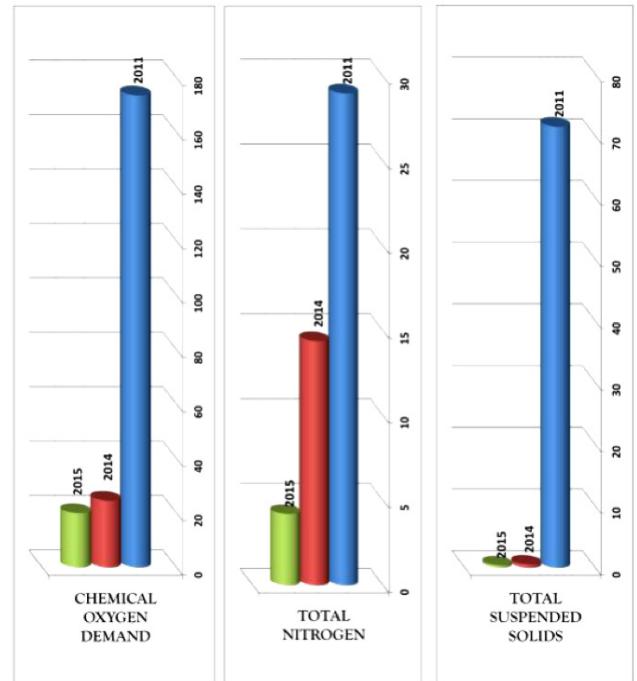
pH: 7.71, COD: 21, Ammonia: 0, Nitrite: 0.008, Nitrate: 0.7, Ortho-phosphate: 0.19, Total Phosphate: 0.25

The contractual criteria mandates the Total Nitrogen (TN) to be 10 mg/L or less which in practice, it is now less than 1 mg/L for the effluent stored in the 20M gallon exfiltration pond. Also, unlike any other sewage treatment plant in the region that uses loads of alum to lower the phosphate in the effluent that cost them hundreds of thousand dollars annually, our state-of-the-art sewage treatment plant uses no chemicals at all to lower the phosphate and the results are even much better than any one of those plants.



The effluent is crystal clear, with absolutely no smell, with carbonaceous Biological Oxygen Demand (cBOD) almost completely removed from it, and with Total Nitrogen (TN) well below 10 mg/L mark. Total Nitrogen below this limit was achieved only after the last upgrade was completed starting November of 2014. Now, with such high quality of effluent from the plant, there will remain no concerns about plant effluent negatively impacting the environment, especially the highly sensitive ecological integrity of receiving waters of the Coldstream Creek.

The following chart and table show the comparison of annual average COD, Total Nitrogen (TN) and Total Suspended Solids (TSS) for years 2011, 2014, & 2015.



COD (mg/L)			TN (mg/L)			TSS (mg/L)		
2011	2014	2015	2011	2014	2015	2011	2014	2015
173.5	24.5	19.91	29	14.4	4.2	71.5	0.5	0.35



IRRIGATION WATER

With warmer weather this year, we may need to start the irrigation somewhat earlier, and as a result, the level of water in the 20M gallon pond may even get lower this year. Having said this, we are still looking for ways to utilize such high quality water for other potential applications, as well. This effluent is classified as being permitted for use as irrigation for unrestricted public access and therefore has many potential suitable applications.

The irrigation with such high quality water enhances the growth of flora in the irrigation field which in turn assists with reducing greenhouse gases, and any infiltration into the ground waters will result in diluting the potential higher concentrations of nitrogen and phosphate in these receiving waters.

TREATMENT PLANT TOURS OFFERED

Silverhawk Utilities will be offering educational tours of the Wastewater Treatment Plant. These educational tours will include a comprehensive description of the process that is involved in treating wastewater, a tour of the inside of the plant and what regulations and laws are being followed to treat effluent to the highest standards. The tour will be conducted by one of Silverhawk Utilities Certified Wastewater Treatment Operators who have hands-on experience with operating water and wastewater treatment systems. Please contact our Silver Star office (250) 558-9877 for available dates.

PROTECT OUR WATER

Please do your part by not pouring any chemicals, cooking oil, grease or materials down the sink or toilet that can be harmful to the environment. A list of restricted materials can be found on our website at www.silverhawkutilities.com, or if in doubt please contact our utility at (250) 558-9877.

2015 RATE FREEZE

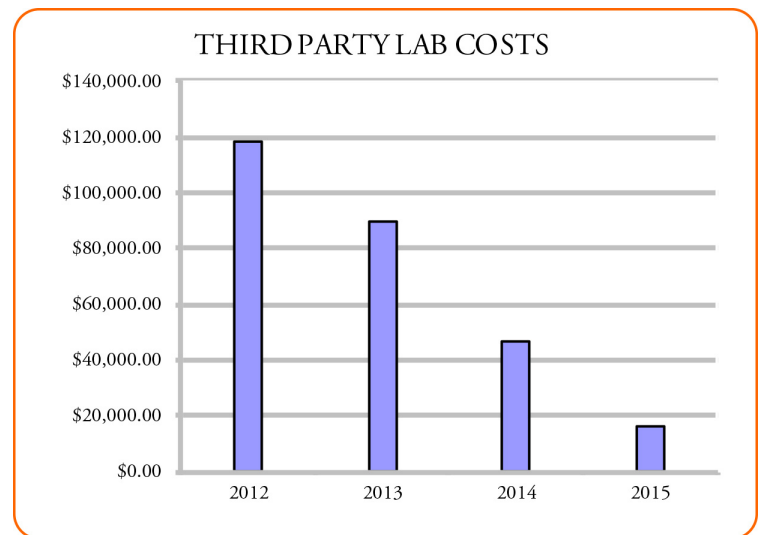
The entire Silverhawk Utilities team has been working diligently to control the operating costs of the plant, and as a result, the Service Rates for 2015 have not increased. Many thanks to customers that paid their sewer bills on time, and avoided incurring significant costs associated with sending delinquent accounts and unpaid sewer bills to the collection agency.

- 2015 Annual Fixed Fee - \$773.20/year
- 2015 Annual Vacant Lot Fee - \$773.20/year
- 2015 Usage Fee - \$7.21/m³

REDUCTION OF LABORATORY COSTS

We like to appreciate the great job the Silverhawk team Susan & Jim Huffman, Keaton Brown, and Cory Clement do in maintaining the plant in such a top notch condition. With their great assistance and dedication, Silverhawk was able to control the operating cost much better and as a result, avoid any rate increase for this year. As an example, by performing several of the water sample analyses in-house, we eliminated very high cost associated with having water samples analyzed by third party labs which of course has made our operators working harder within their regular shifts.

The following graph depicts the comparison of third party lab cost in the past four years:



HELP AVOID WATER LEAKS

A reminder to all property owners at Silver Star Mountain to please turn off your water if your home or business is going to be vacant for an extended period of time. An undetected leak can cause significant damage to your property and waste a very large amount of water. For example, it is estimated that a running toilet can use up to 10 cubic meters of water per day.