

General Manager's Report - September 16, 2013

Water Use

Water pumped from all wells: **11.9** million gallons

Water used by the District: **0.7** million gallons

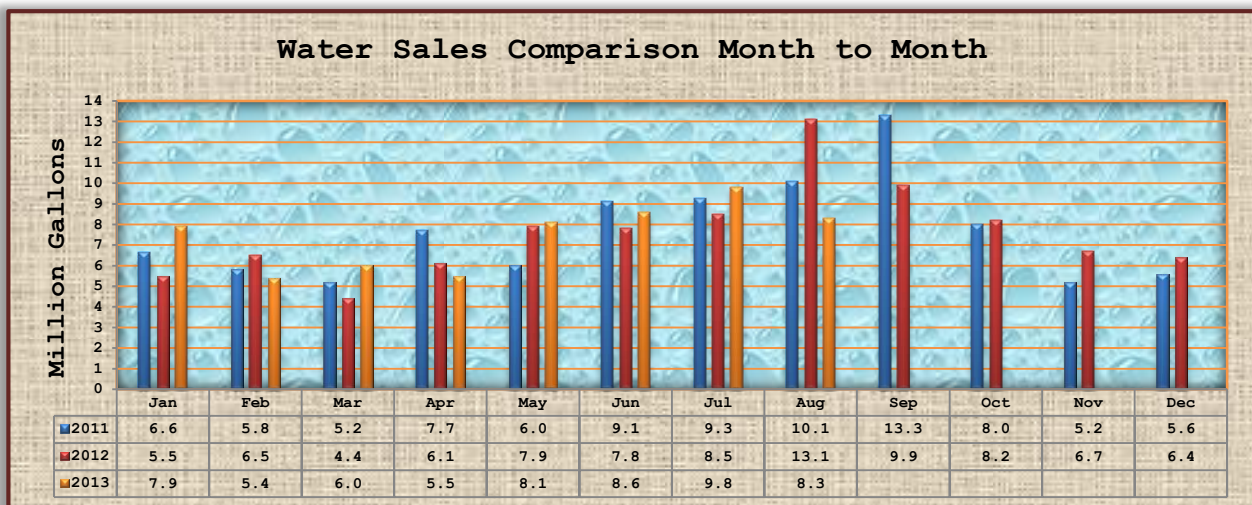
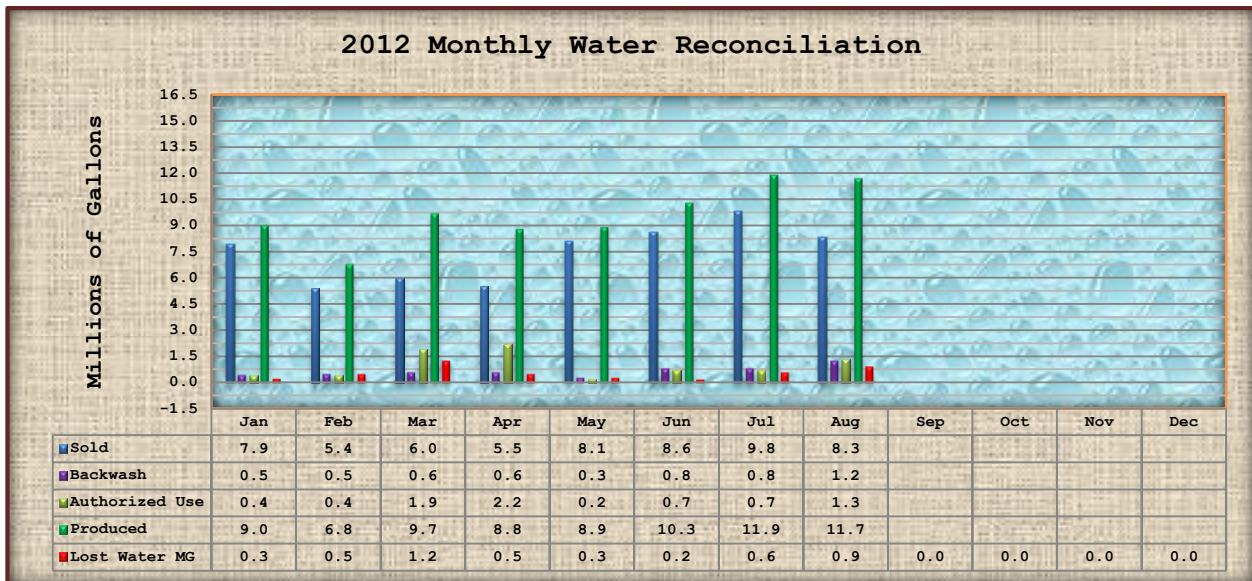
Water used to backwash filters: **0.8** million gallons

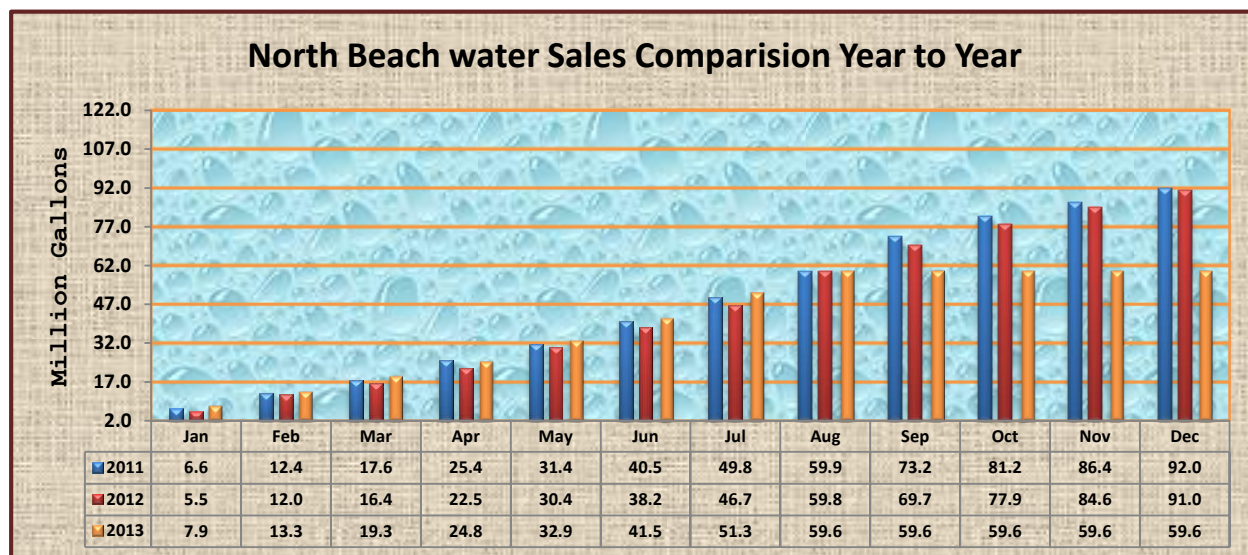
Water sold: **9.8** million gallons

Water lost to leaks: **0.6** million gallons



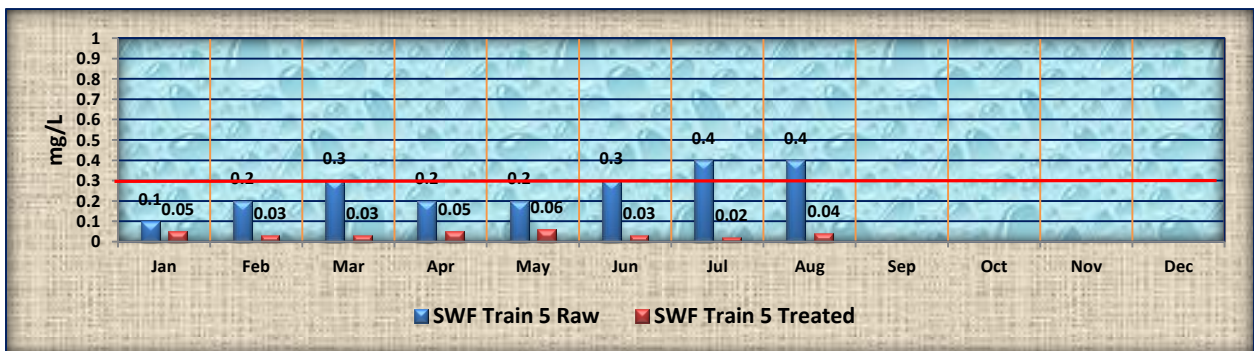
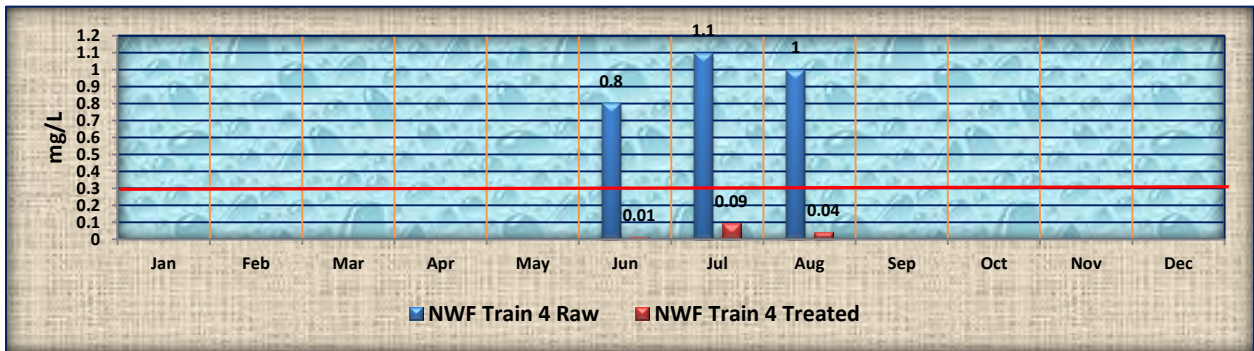
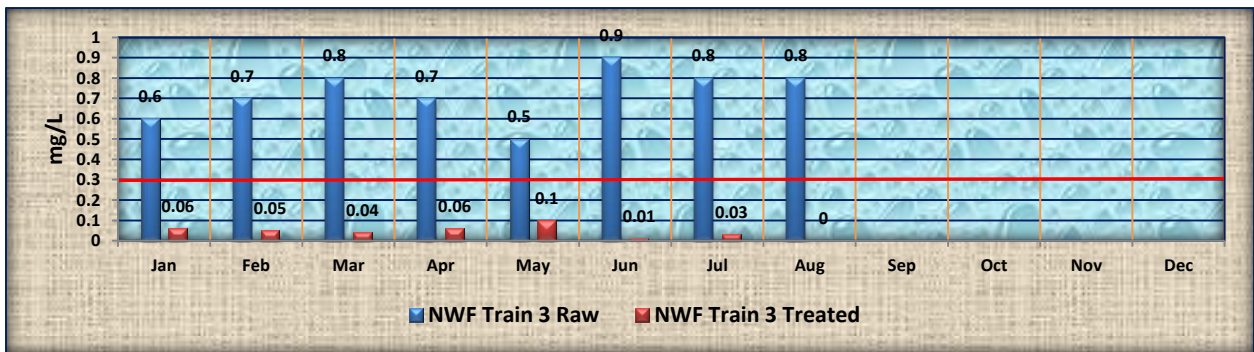
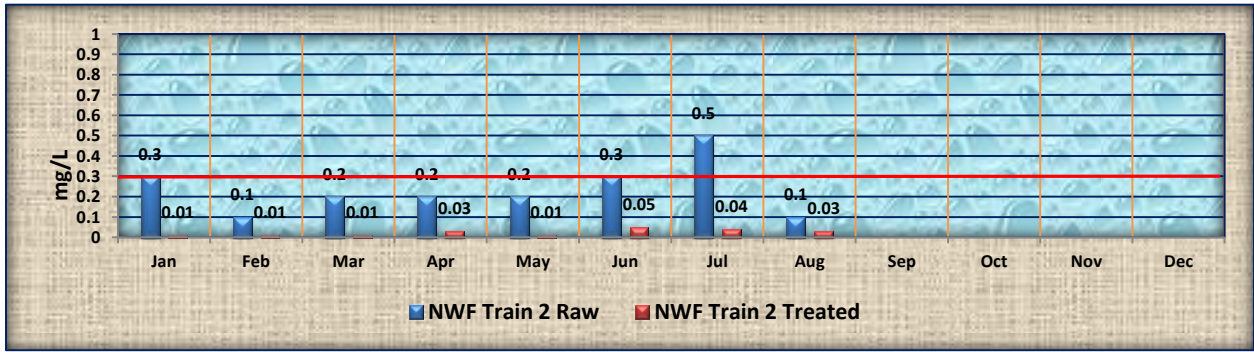
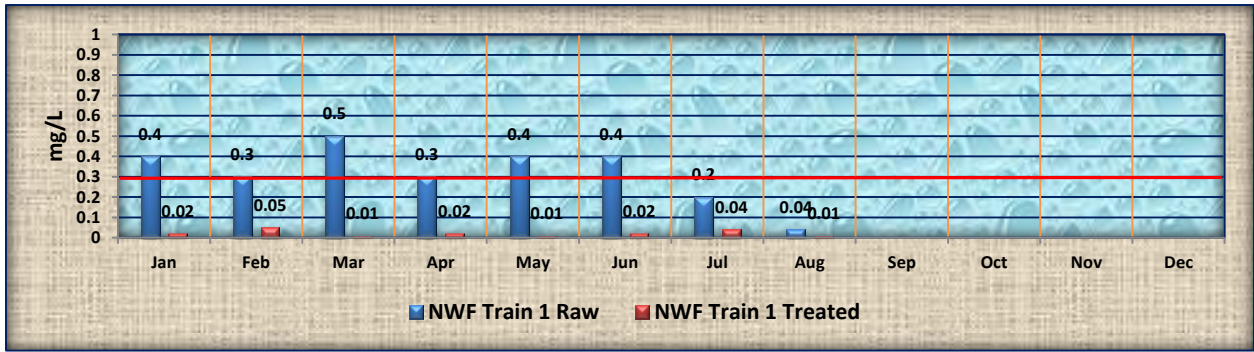
Osprey, The perfect fishing machine.

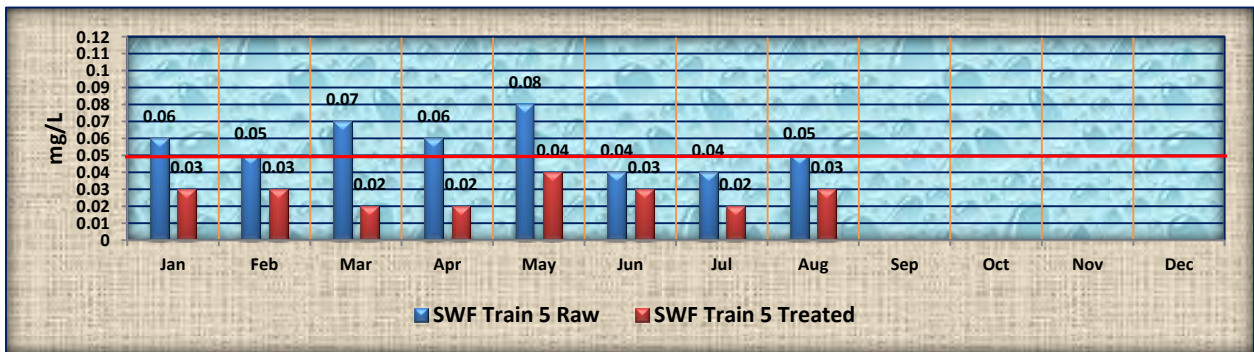
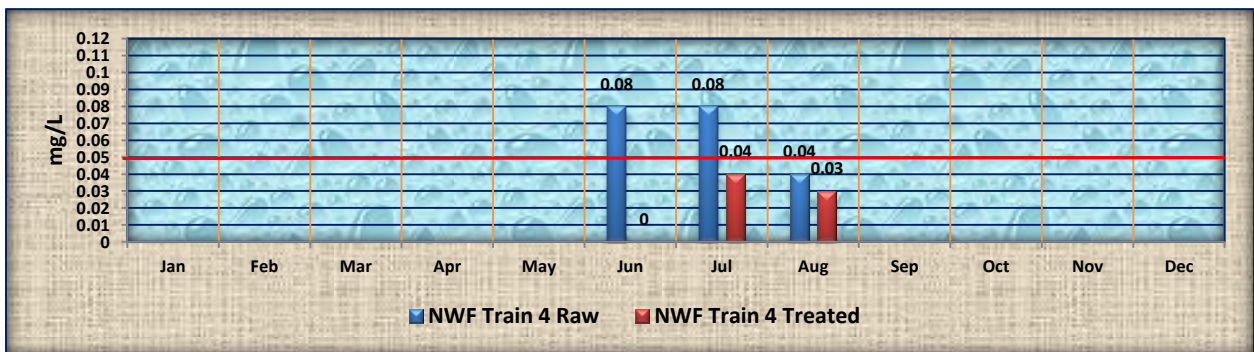
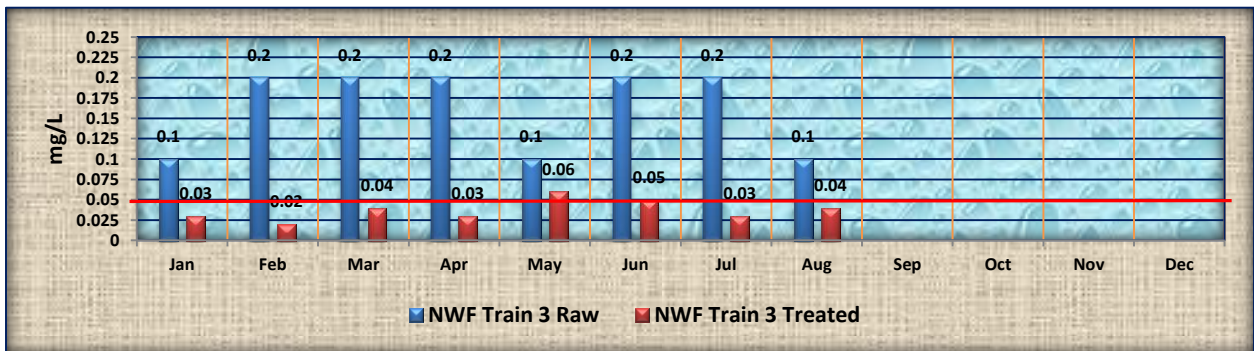
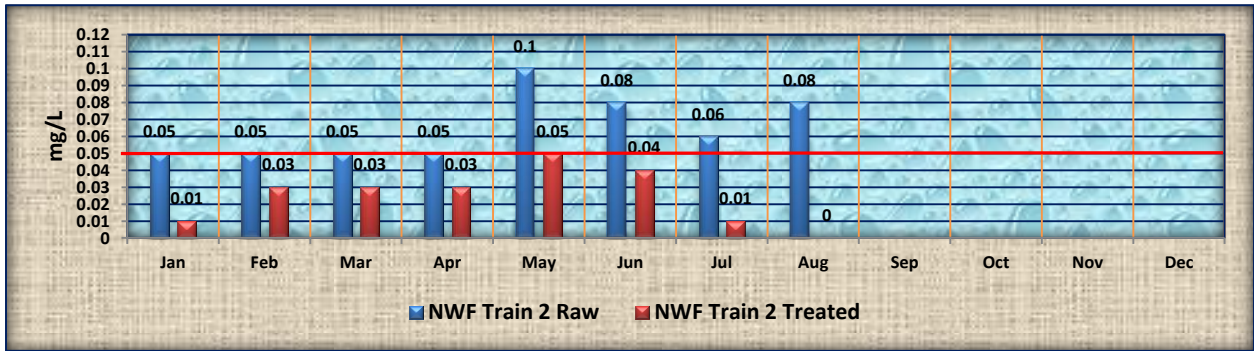
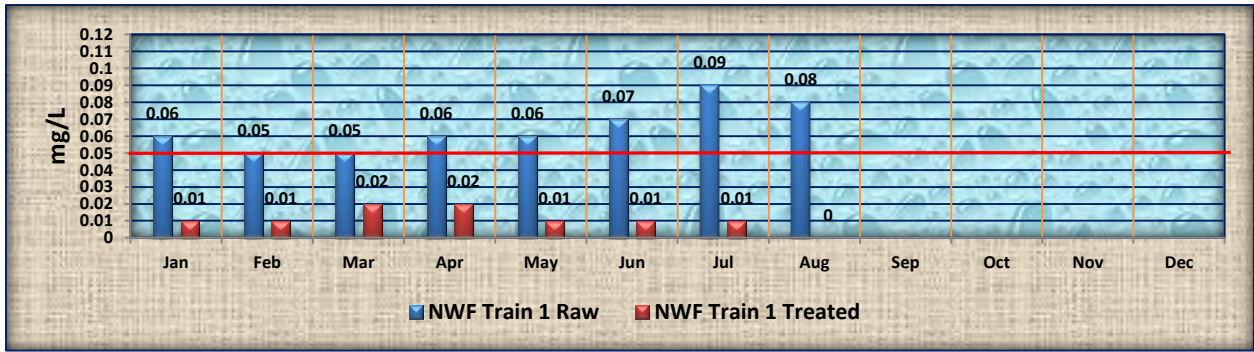


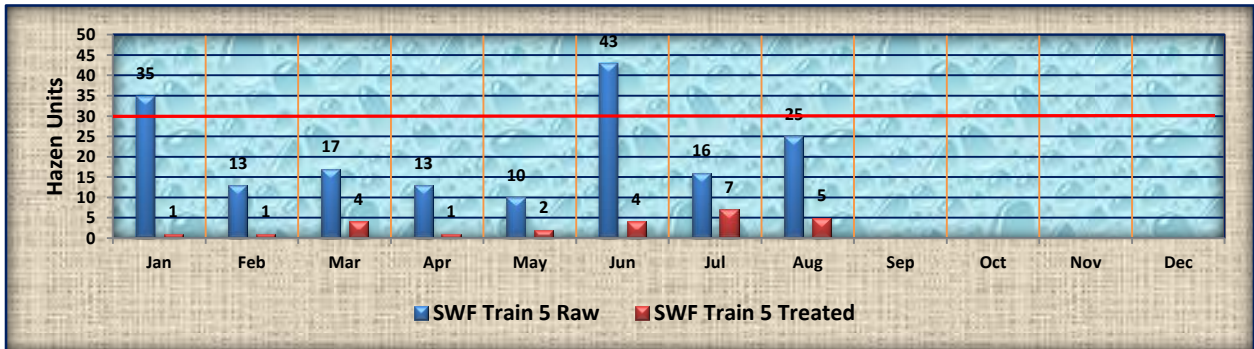
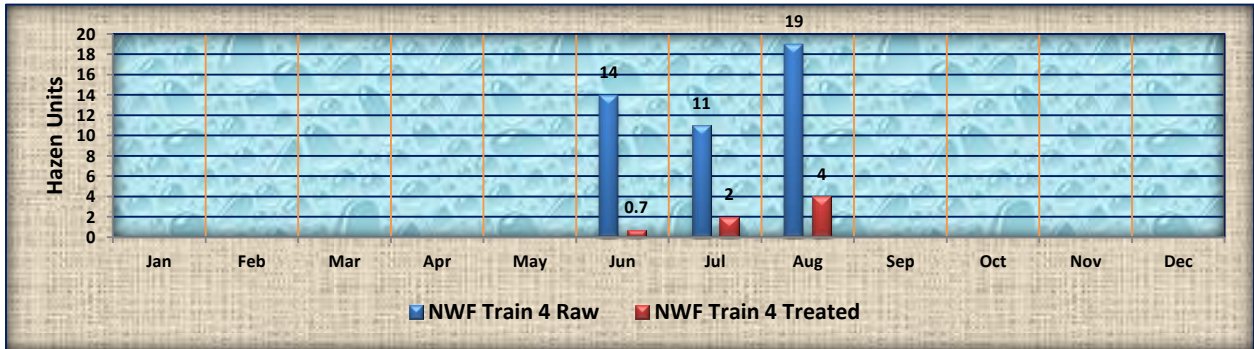
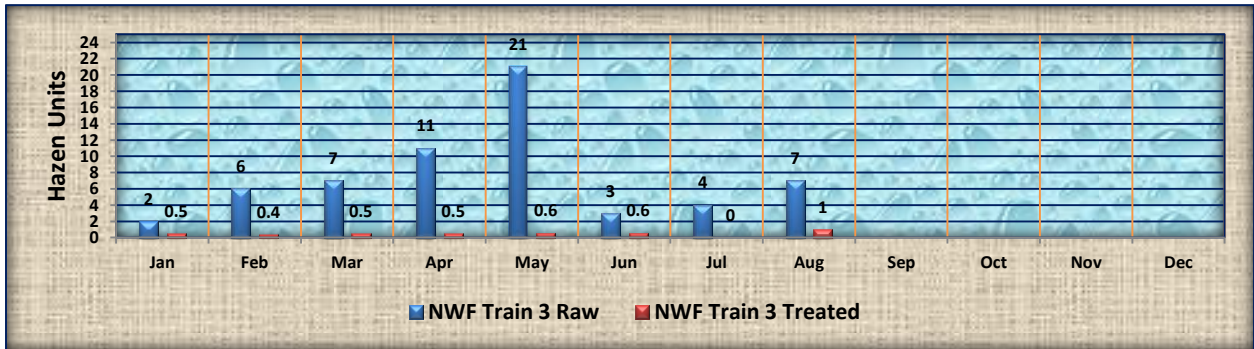
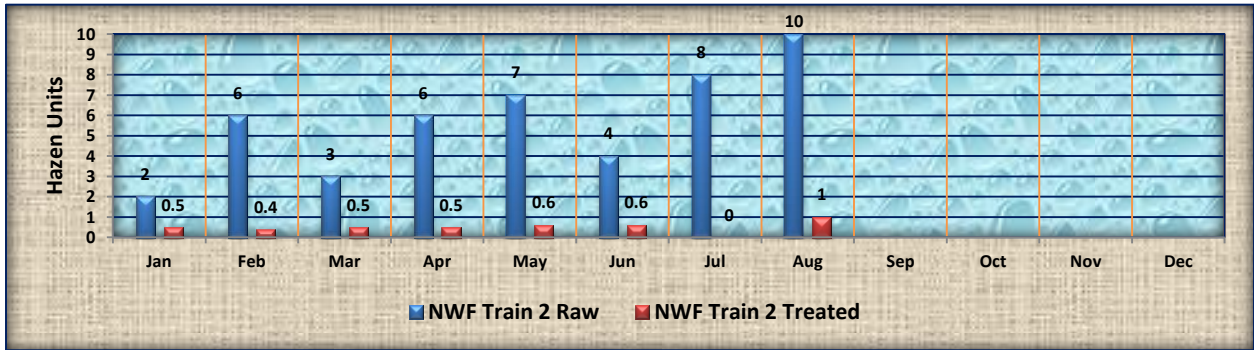
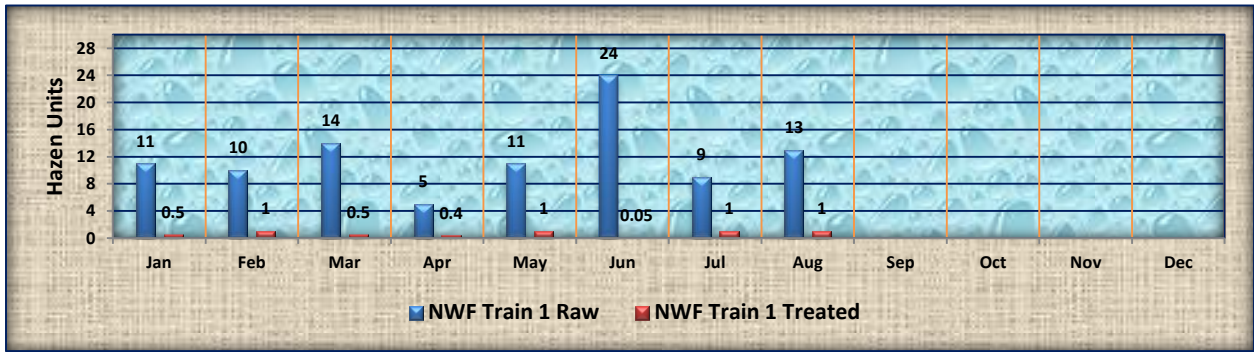


Water Quality Report:

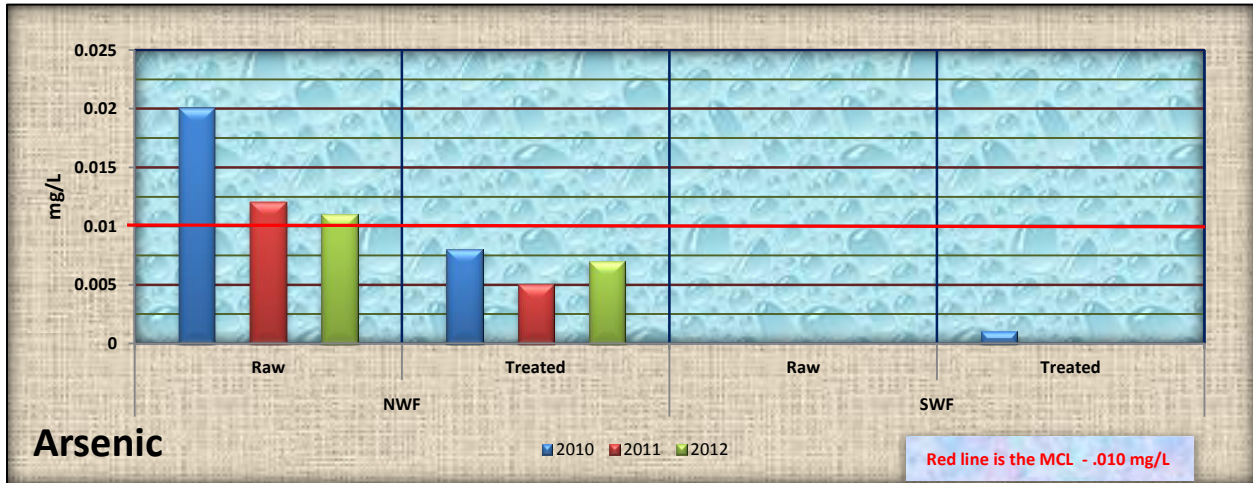
We test water samples weekly. Three of the tests we do weekly indicate how well our water treatment plant is operating. The treatment system is designed to reduce iron, manganese, and color. The treatment plant also reduces arsenic but we do not test for this contaminant in-house. Testing for arsenic requires sophisticated analytical equipment and training our staff does not have. The DOH requires we test for arsenic once every three years (we test more frequently). Test results for arsenic are consistently below the MCL. Excessive iron, manganese, and color can lead to low water quality in the distribution system that will result in increased water quality complaints. Below I have included charts that will show the average raw water and treated water for iron, manganese, and color.







Color



Distribution System:

Water Quality:

North Beach Water District collected and submitted five (5) compliance coliform bacteria water samples in August, 2013. All water samples tested negative for coliform bacteria presence.

The District received four (4) water quality calls in August, 2013.

Wiegardt Property Purchase:

I recommend the District waive all contingencies on the purchase of the Wiegardt Property and arrange closing as soon as the property subdivision is complete.

DWSRF Projects:

The well drilling is in the final stages. The well drilling is complete with the installation of the well screen. Well development and pump testing will be completed in the next two weeks. The well was drilled to a depth of 174' deep. Drilling was stopped at that point because the discovery of a confining layer (clay). The screen and pack was set from 119' to 139'. Preliminary testing indicates the well has a specific capacity of 10 gpm/ft¹. Preliminary iron and manganese test indicate

¹ The rate of discharge (gallons per minute) of water from a well per unit (foot) of drawdown.

excellent water quality. (Iron .2 mg/l and manganese .03 mg/l)
The final pump test will be conducted last week of August.

The design work for the Water Main project is complete. The job will go to bid in October, 2013. The work will be done in January /February 2014.

227th Lane Customer Generated Infrastructure:

I have received two signed Agreements with down payments. I have received verbal confirmations from three other property owners. As soon as I have received four signed agreements and down payments I will recommend the Board schedule a Public Hearing for the project.

245th Street Water Main Loop Project:

The design for the project is complete and approved by Pacific County. I prepared a materials list and sent it to three suppliers for bids. HD Supply provided the lowest bid at \$20,921.29 plus tax. The order will be delivered the week of September 16, 2013. Mike Collins and I will schedule the work as soon as the materials have been delivered.

Safety Meeting Minutes:

North Beach Water District staff had their monthly Safety meeting on the first Monday of the month.

Surfside Water System:

Please see attached report.

End of Report

SURFSIDE HOMEOWNERS ASSOCIATION

WATER SYSTEM REPORT

SEPTEMBER 2013



Osprey - Nature's Perfect Fishing Machine

Report on Water System Activities for August 2013

Water Production August 2013:

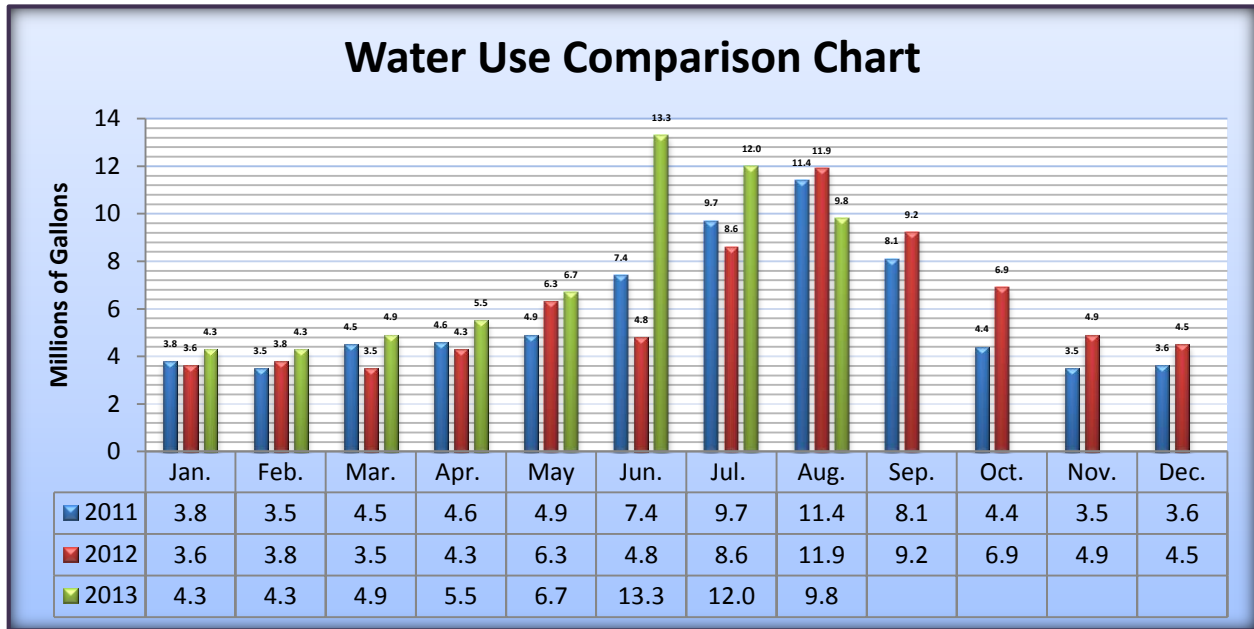
Pumped 9.8 million gallons from wells

Treated 9.4 million gallons

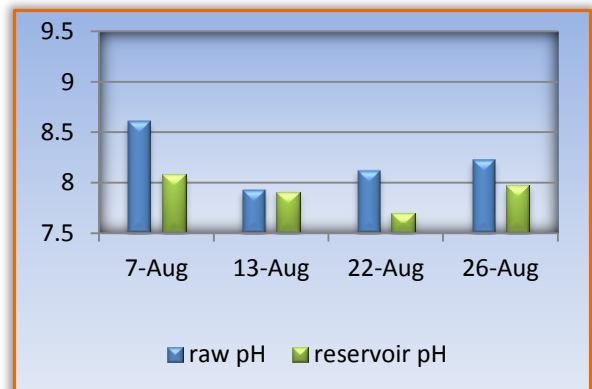
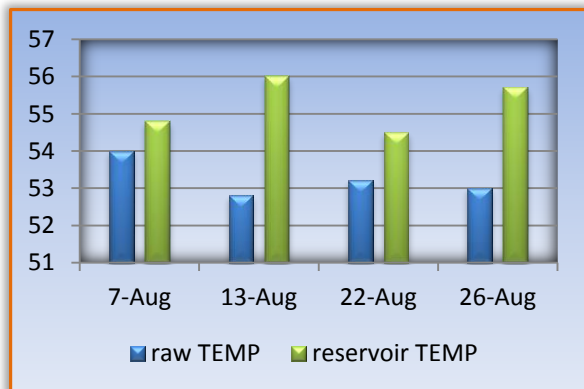
Used 0.6 million gallons backwashing filter and flushing water mains

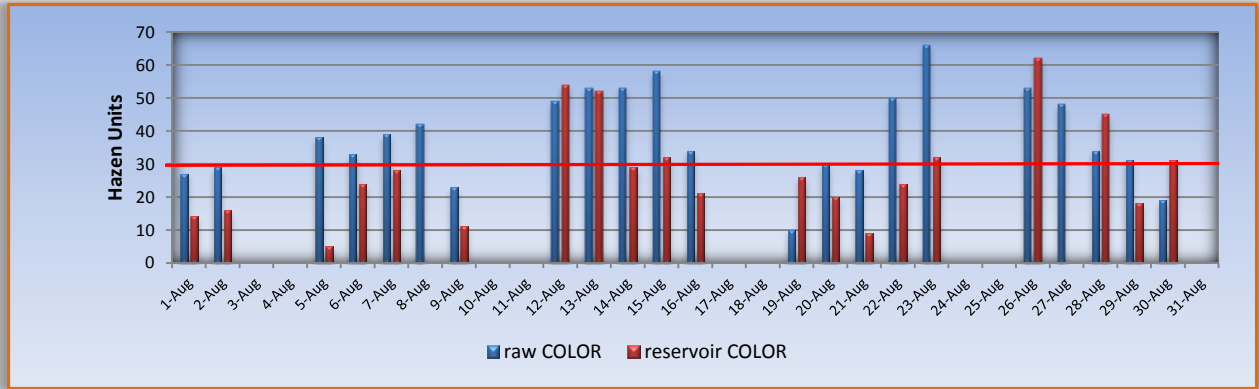
Pumped 9.3 million gallons into the distribution system

All DOH mandated water samples for August were submitted for analysis and tested negative for contaminants.

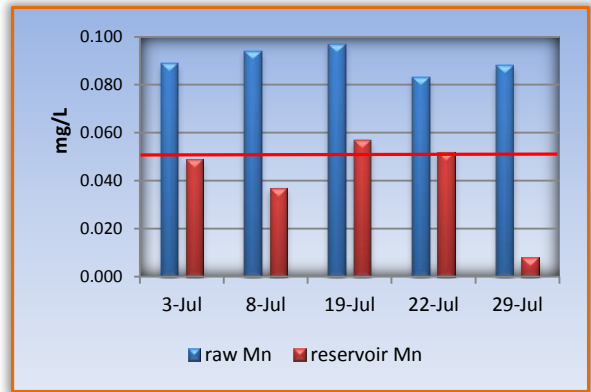
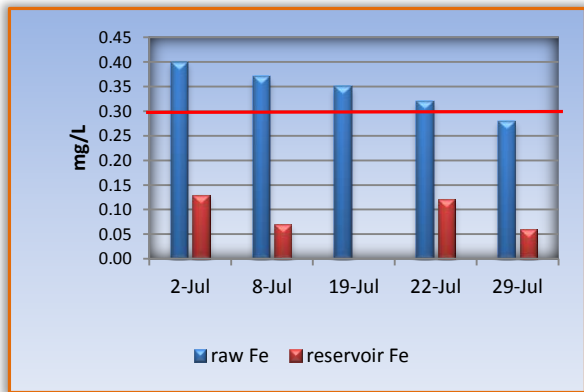


Water Quality For August:



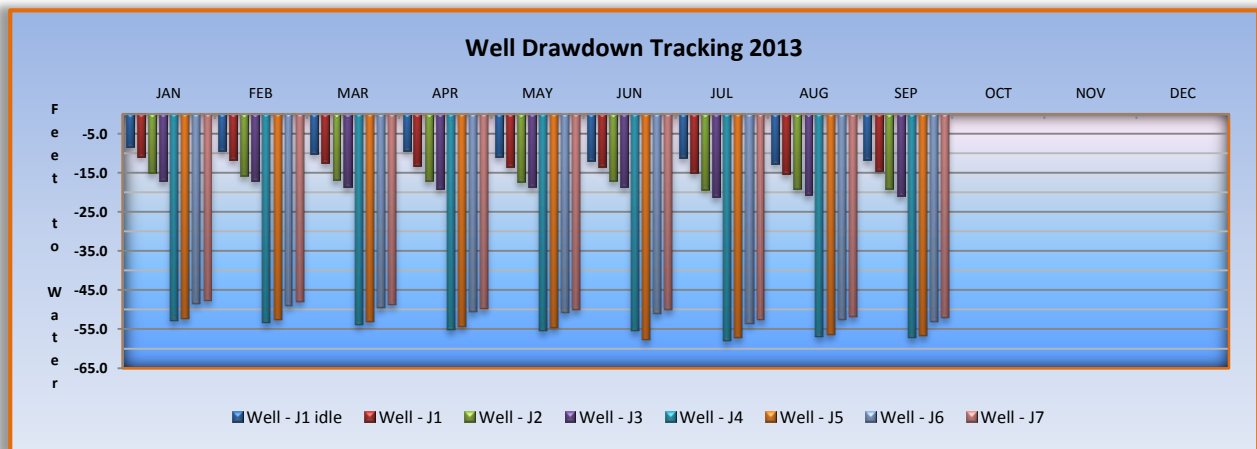


The color of the raw (well) water is regularly above the EPA SMCL of 15hu (Hazen Units). The 30hu level is for aesthetic purposes only. Color in water does not pose a health concern. Washington State has not set an SMCL for Color.



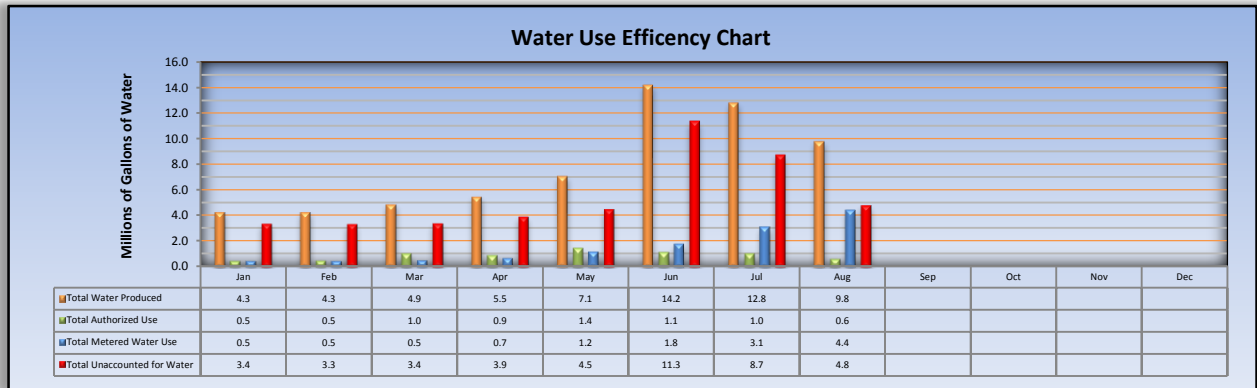
The red line in the charts represents the Secondary Maximum Contaminant Level (SMCL), as set by the Environmental Protection Agency (EPA), for iron (Fe) and manganese (Mn). The filters are removing a large percentage of the iron in the raw water and lowering the iron levels to well below the SMCL.

Water Wells:



We track the water levels in the wells during pumping and when wells are idle. J-1 Idle tells us what the static water level is at rest. We then measure the drawdown of all the wells during pumping cycles. We measure from the top of the casing down to the top of the water on each well. We monitor the wells closely so that we can address any reduced yield before it becomes a major problem.

Water Use Efficiency:

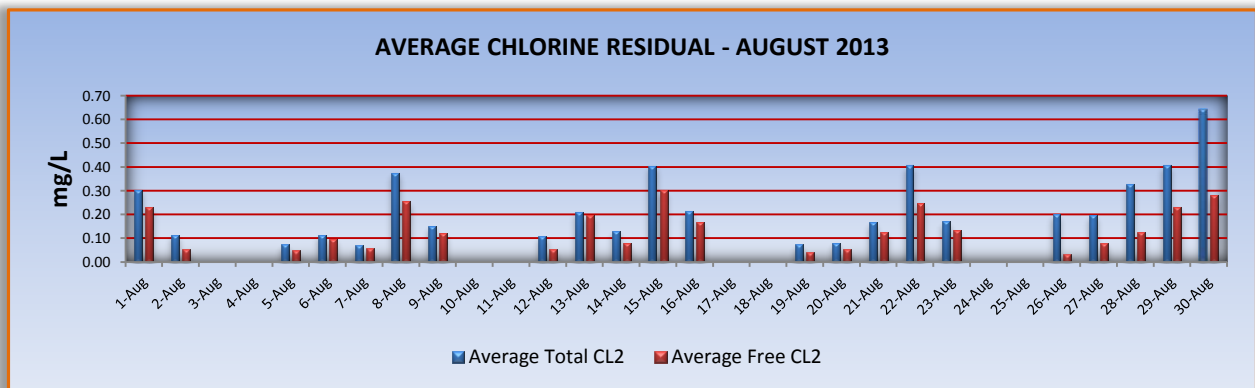


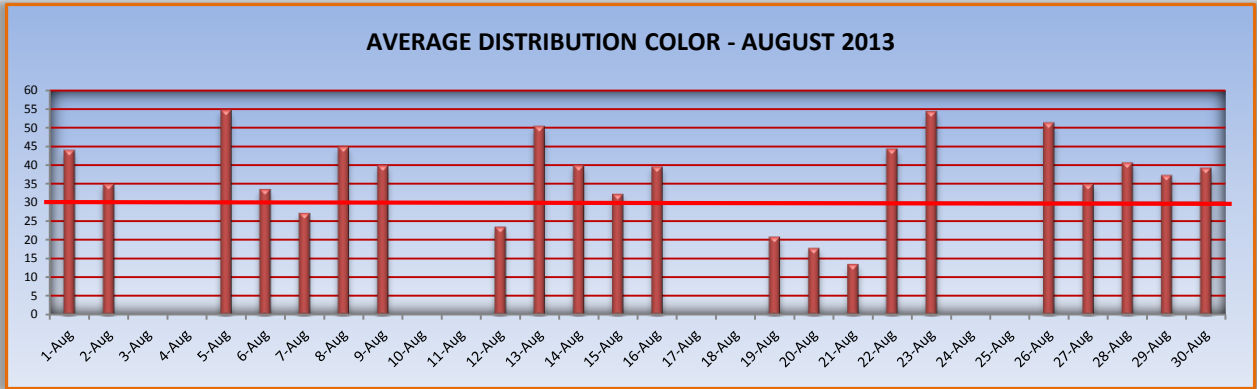
The Total Water Produced is the amount of water pumped from the wells each month. The Authorized Use includes water used to backwash the filters, water used to flush mains, and other uses for maintaining the water system. The Total Metered Water Use is the amount of water that is recorded by our new meters. August’s reading included 699 residential service meters and 6 commercial meters.

Water Quality in Distribution:

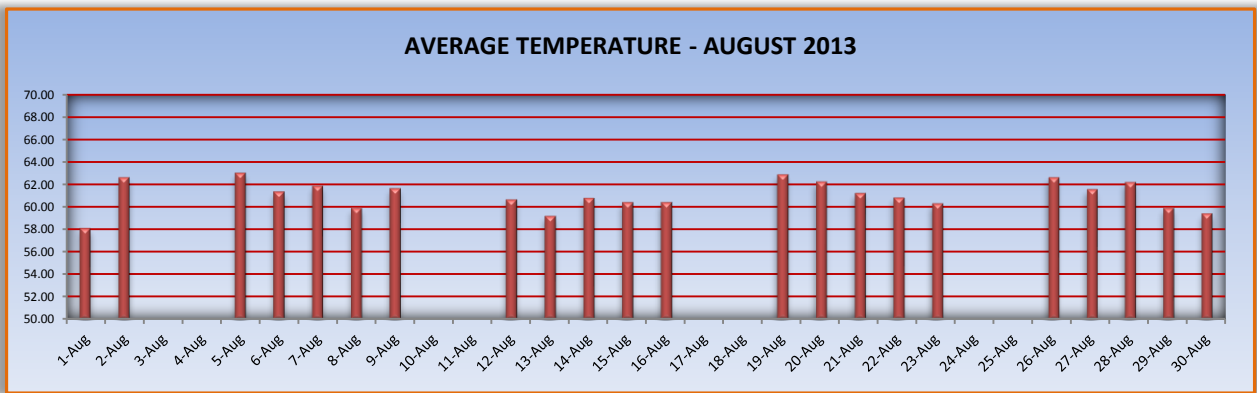
The Water Department regularly tests the water in the distribution system for quality purposes. Chlorine (Cl₂) disinfection effectivity is best when the water is neutral (pH of 7.2). As water becomes more acidic (lower pH) or alkaline (higher pH) more chlorine will be needed to achieve the same chlorine disinfection effectivity.

The chlorine (Cl₂) residual is being maintained at a low level (±.1 mg/L). We continue to adjust the Cl₂ feed rate to maintain the minimum effective free chlorine residual in the distribution system.





The color in the distribution system is consistently over the 15hu EPA established SMCL. People will start to notice a slight yellow tint to the water when the color is 15 HU. Below 15 it is hard for the eye to see the color. At thirty and above the water color is very noticeable.



The average distribution water temperature is important to monitor. When the water is warm disinfection byproducts will be elevated and chlorine will operate much more efficiently. The average water temperature in August was 60 degrees. The average water temperature in January was 48 degrees.

Operations and Maintenance:

In August:

Main Breaks:

No main breaks in August

New Services:

The Water Department installed zero (0) new services in August.

Water Quality Complaints:

The Water Department responded to three (3) water color complaints in August.

Requests for Water Main Locates:

The Water Department responded to twelve (12) requests for water main locates in August.

J-Well Field Improvements -

Work on the J-Well field Kiosks is complete. Tom Kennedy did an excellent job on the kiosks. The Water Department would like thank Tom for his selfless efforts in assisting the Water Department. The J-Well Field Improvements Project will be complete when the transducers are installed. The kiosks will be used to mount the electronics for the transducers and attach antennas to transfer the data to the computer at the booster building. The transducers will be installed by the end of the year.



Water Main Replacement (WMR) -

No WMR work was completed in August the WMR project for 2013 will be completed in the fall.

Meter Installation Project -

98 meters were installed in August. The meters were installed on G Street from 315th Street south to 295th Street and then 295th Street north on H Street to about 300th.

Sanitary Survey:

The Department of Health sent the Water System Manager a report on the Sanitary Survey. The report included three findings that need to be corrected by December 31, 2013:

1. *"Per WAC 246-290-490, a cross connection ordinance is required for all community systems, which gives the system authority to enact other requirements of cross connection control (CCC) for the water system."*

The Board adopted a Cross Connection Control program at the August Board Meeting (Resolution 2013-08-01). The Board also authorized a new permanent part-time employee (Cross Connection Coordinator) to be hired starting January 1, 2013 to implement and maintain the cross connection program.

2. *"Please submit a description of the ion exchange treatment cut sheets for the products and equipment."*

The Water System Manager has provided the requested information to the DOH.

3. *"Please verify that the hatches have adequate seals (gaskets, ect.) and that the vents have screens."*

The reservoir hatches and screens were inspected and photographed prior to the Sanitary Survey. We discovered that the hatches were very rusty and were in need of maintenance. We have made temporary repairs to two of the hatches. We will be ordering replacement hatches for all four reservoirs and replacing them before the end of the year. The vents had adequate screens.

The Department of Health had three recommendations:

1. *"The system should consider flushing multiple times annually with unidirectional flushing, due to past iron and manganese issues. This may also help with elevated Disinfection Byproducts (DBP)"*

We currently flush the entire system using unidirectional flushing once a year in the Spring. The unidirectional flush requires approximately 160 hours to complete (one employee for four weeks). We are not experiencing any iron or manganese complaints (staining). We are experiencing color complaints but the color is not associated with iron and manganese.

We do targeted unidirectional flushes throughout the year for DBP control. Due to the high residuals of TTHM the DOH requires Surfside to test quarterly for TTHM. The DOH looks at the last four month average of samples. Currently our four month average is 80 ug/L which is the MCL. The DOH is aware of our pilot testing to reduce the TTHMs and has agreed to not issue any enforcement actions during the pilot testing period. Our pilot test will last from 12 to 24 months starting in October.

2. *"The Water Facilities Inventory (WFI) should be updated as a non-residential connection appear high, with the new direction of counting services connections and not the number of units for non-residential connection. This may reduce the cost of your operating permit. Please contact Brad Brooks at (360) 236-3049 for assistance with adjusting this number."*

I have contacted Brad Brooks and the WFI should be updated before the end of the month.

3. *"The loading rate for the filters may be oversized at this point and should be verified in the pilot study. Please verify the current loading rate of the filters."*

I have asked Russ Porter, Gray and Osborne engineer, to review the loading rates for the filters and prepare a letter for the DOH as an addition to his scope of work for the pilot test. Russ estimated the work would result in a \$500.00 addition to his original estimate. I authorized him to complete the work and get a letter to DOH by the end of the year.

I have attached a copy of the Sanitary Survey to this report. The water system received very good marks for management and operations which is reflected on the top of page 2:

"As a result of recent regulation changes, all community water systems in Washington have been changed to a three year sanitary survey cycle. System with no coliform violations, no more than one monitoring violation and no significant deficiencies from previous survey can qualify for reduced survey frequency.

*Your next survey is **in five years.**"*

End of Report