

MUD 113 Newsletter

July, 2018

New Wastewater Treatment Plant Has Started Up

Montgomery County MUD 113 is pleased to announce the completion of an expanded wastewater treatment facility for the District. In late June, wastewater flow was transferred from the District's original treatment facility to a new facility that will treat and filter sewage to meet state standards for safe discharge into the creek or reuse as non-potable water for irrigation or amenity pond replenishment.

The planning for the project began in 2015 with an "Alternative Analysis Study" to determine a cost effective treatment process for the new facility. BGE, Inc. designed and bid the plant in 2016 and the construction contract was awarded to R+B Constructors in February 2017. The new plant repurposes some of the tanks from the old plant for treating biosolids removed from the wastewater during treatment. New facilities include electrical controls, pumps, blowers, mechanical screens, biological treatment basins, settling basins, filters, and chemical disinfection facilities.

Change orders during the 15 month contract resulted in a net reduction of about \$90,000 leaving a final contract amount of \$7.19 million. The construction team managed through three significant weather events during construction including the unprecedented flood caused by Hurricane Harvey last year.

The new facility has the capacity to treat a peak flow of 1,666 gallons per minute and a monthly average flow of 600,000 gallons per day. Because of the rapid growth in Woodforest, the plant will come on line at 60% capacity. Our engineers are currently designing the next phase of the plant that will increase the monthly average capacity to 945,000 gallons per day at an estimated cost of about \$3 million. The new phase will begin construction in early 2019 and be completed in about 12 months.



Figure 1: Aeration Vessel



Figure 2: Clarifier



Figure 3: Top of Aerator - Clarifier - Effluent Filter - Effluent Chlorination

Early Warning of High Water Conditions Near Our Community

We have been asked by residents to provide a real time indication of high water in our area from a storm. Lake Creek is a major drainage corridor which runs from north of H-105 in Dobbin all the way to the West Fork of the San Jacinto River and passes nearby us to the southeast. The drainage area of Lake Creek is huge (330 square miles) across western Montgomery County. With the unprecedented nature of Hurricane Harvey, Lake Creek rose about 30 ft and its peak flow during the storm increased by a factor of 124 over the period of August 26-29, 2017.

There is a United States Geological Services water gauge on Lake Creek at the Fish Creek Thoroughfare/Sendera Ranch Rd bridge near Woodforest. Flow and elevation data are recorded every 15 minutes and transmitted to the USGS website every 1-4 hours. We feel this gauge provides the best local measurement of impending high water. We have put a link to this gauge on our website www.MCMUD113.com. It can be found on the Home page to the right and under the "Search" box and is entitled "**Lake Creek Water Gauge at Sendera Rd.**". Click on this link and have a look at the capabilities of this site.

As an example, a plot of the Lake Creek level over the first week of July is given below and shows a 2.5 ft rise from the rains on July 4. This was a very minor event but illustrates the capability of this gauge to provide valuable information of what's happening.

