

PECAN GROVE MUD NEWS

Welcome to the World of Surface Water

An eight year trek to evaluate the best options for the District, to obtain approval of the District voters to build facilities, and to plan, design, and construct a state-of-the-art surface water treatment plant is almost complete.

In previous newsletters, we updated you on the District's progress toward the conversion from ground water to surface water. We have now entered the final stages of completing the facilities required to convert our drinking water supply. As we dive into this new era, we thought you might be interested in taking a quick look back at how we got to where we are today.

The Road to Surface Water

In 2003, the Fort Bend Subsidence District mandated that the major municipal water suppliers in Fort Bend County (including Pecan Grove Municipal Utility District) convert portions of their water supply to a source other than ground water. The Pecan Grove District embraced the mandate and began the initial research and planning processes.

After evaluating a variety of alternatives, the Board of Directors determined that the most advantageous plan to comply with the mandate was to construct a Pecan Grove MUD Surface Water Treatment Plant (SWTP). In 2007, the surface water supply was secured from the Brazos River Authority. Based on the conceptual plans for facilities, the voters authorized bonds to fund the water improvements in May, 2008. Design of the SWTP was then initiated and the preliminary engineering design of the Plant was completed in March, 2009.

In April, 2010, the construction contract for the SWTP



was awarded to LEM Construction Company, Inc. and construction was substantially completed by January of this year. Testing, training and preparation for delivery of treated surface water to District customers is currently underway.

Some Additional Points

- This is a major change in how drinking water is prepared for delivery to the District water system and represents the completion of a substantial effort taken on by the District to provide the highest quality drinking water and service to our customers.
- The District will create Subsidence District credits, which may be used to reduce the cost of surface water conversion.
- PGMUD is complying with the standards for reduction of subsidence while retaining local control over the treatment and delivery of our drinking water.

The Board of Directors would like to recognize and thank the entire PGMUD team for their efforts and top notch performance in completing the many surface water related projects. As we finish up the details and begin to deliver treated surface water, we hope you, too, find that all the hard work has paid off. If you have any questions regarding the SWTP, feel free to call our Customer Service Office at 281-238-5000.

Irrigation After a Drought

Recent rains have been a very welcome change, but drought conditions do still remain. The latest U.S. drought monitor report (released February 23, 2012) continues to show southeast Texas in anywhere from moderate to extreme drought conditions.

As you can imagine, the extended and extreme dry weather prior to the rains really did a number on our lawns and gardens. Some results are obvious – dry patches in your grass, or the loss of trees and plants. Other issues can not necessarily be seen with the naked eye, such as dry soils that can have a difficult time holding water.

According to Justin Morales of Greenscape Associates in Rosenberg, there are several key steps you can take to not only help your lawn recover from the beating it has taken, but also to continue the water conservation practices that we became much more aware of during the past few years.

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Extreme Rain Events and the PGMUD Storm Sewer System

How does it all work?

On January 9th of this year, our countless rain wishes were granted when the skies opened up, pouring down between 6" and 7" of rain in a 24-hour period*. The most intense 5" of rainfall occurred over a two-hour time frame. This much-needed treat from Mother Nature was a welcome sight, indeed, but the massive amount received in such a small window of time resulted in a bit of a flooding scare. The storm, which was classified as a "25 to 50-year storm event" (based on the Fort Bend County Drainage District Criteria Manual) has about a 2% to 4% chance of happening in any one year.

The 4-1-1 On PGMUD's Storm Sewer System

Storm sewer systems in the greater Houston area are typically designed to handle a "2 to 3-year storm event", or events that have a 33% to 50% chance of happening in any one year. This generally equates to rainfall that measures 1" to 1-1/2" per hour.

During extreme weather – such as we experienced on January 9th – excessive ponding that cannot be conveyed through the storm sewer will overland flow along its natural flowpath toward an outlet. Typically, a subdivision's streets are designed to act as an overland flowpath during such an event.

Can PGMUD "Turn on the Pumps" During Hard Rains?

During the January rain event and the minor flooding that followed, the PGMUD Customer Service Office received a number of calls asking why the District's storm water pump stations were not being utilized. Based on the confusion surrounding PGMUD's pumping system, we felt we would take this opportunity to fill you in on how it all works. As always, if you have any additional questions, feel free to call our Customer Service Office at 281-238-5000.

- The primary purpose of the existing pump stations within Pecan Grove is to pump water out of the District when the Brazos River is at, or above flood stage, and the water inside the PGMUD levee can no longer freely leave the levee sys-

tem. In this situation, the pumps are used to pump the water from inside the levee out to the Brazos River. When the Brazos River is not at flood stage, water can freely leave the levee system - without the pumps - at a much higher rate than if the pump stations are active.

- So, what if the Brazos River is not at flood stage, but quick, heavy rains result in ponding or even flooding in our streets? Can the pumps be turned on to help the water to recede faster? The fact is, our area is very effectively designed to drain via gravity flow. The pump station – which has a lower flow rate than gravity outfalls - is only designed to be used when downstream water conditions do not allow gravity flow. In fact, if we chose to pump instead of allowing gravity flow to do its job, we would actually slow down the rate that the street flooding would recede.

Tell Us Your Story

Based on the recent flooding event, PGMUD is evaluating possible projects that will help to reduce the amount of ponding in the streets of Pecan Grove. We do have a significant amount of information to work with (based on the January storm), but we would love to hear from you as well. Tell us your stories and/or send us your pictures. The more information we have from all sources, the better we can work to develop solutions to reduce future issues.

*Based on data available through the U.S. Geological Survey, the National Weather Service, and personal rain gauges.



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Please consider the below tips and contact your local lawn care / landscape expert for any issues that might be specific to your yard:

- A great first step to prepare your lawn for a good feeding is to do a thorough raking to remove any dead materials.
- Heavily apply fertilizer on your turf to build a strong root system and to eradicate any funguses on dead materials due to the recent rains. As always, we recommend that you talk to an expert about organic fertilizers that eliminate any issues with dangerous runoff leaching into our stormwater systems.
 - FYI: Greenscape Associates does NOT recommend "Weed and Feed" – an extended release weed killer that will not only kill off your weeds, but your grass system as well – causing it to become weak and thin. Instead, it is recommended that you utilize straight fertilizer and spot weed control.
- Keep a consistent moisture level on your lawn. This does not mean constant watering, but rather deep, periodic watering.
 - Do not overwater. If you see runoff while watering, your lawn is no longer benefiting and you are wasting precious resources.
 - Our soils are high in clay and that soil is still recovering from extended dry conditions. This results in an underground soil system that requires some time to soak in water.
 - Consider lowering your irrigation run times. Water to the point of runoff. Then stop, let it soak in for a few minutes, and kick the system on again. This generally equates to watering 4 to 5 inches down in cycles of 5-15 minutes (depending on your particular lawn needs). Water again in 2-3 days.
 - To pinpoint the moisture depth in your soil, pick up a moisture tester (a rod that you stick in the ground) at your local hardware or lawn care store. It is also a great idea to invest in a rain sensor to avoid unnecessary watering when Mother Nature has already done her job.

For the latest statistics on drought levels in our area, you can visit www.droughtmonitor.unl.edu and click on Texas in the United States map. Another great (and constantly updated) resource for everything water in Texas can be found at www.watrnews.com.

PGMUD Project Updates



Pecan Lakes Floodplain Protection System

The District is wrapping up completing the design of the projects associated with the Pecan Lakes Floodplain Protection System and obtaining the necessary right-of-way. The associated projects include an earthen levee (like the existing Pecan Grove levee) along the north and south sides of the Pecan Lakes subdivision, a structural floodwall along the area of Pecan Lakes that is adjacent to Jones Creek, a detention pond, and a storm water pump station (like the existing two pump stations). The District is working together with the Pecan Lakes Homeowners Association to ensure the success of the project and to address any aesthetic concerns from the community regarding the flood protection system. This includes, but is not limited to, the pattern of the structural floodwall and concrete features at the pump station, as well as amenity features in and around the proposed detention basin.

This levee project will ensure that the residents of Pecan Lakes enjoy the same floodplain protection benefits as the rest of the District. The Pecan Lakes levee and previously constructed improvements to the existing Pecan Grove levee are funded through a bond election that was approved by District voters in November

2008. The design is in the review and approval stage, and construction is scheduled to begin this summer.

Wastewater Treatment Plant Belt Filter Press Replacement

Construction is underway on the Belt Filter Press Replacement project. The wastewater treatment process produces a byproduct called sludge that cannot be discharged into the receiving stream and must be hauled away for disposal. A belt filter press is a piece of equipment that is used to dewater the sludge to a higher solids concentration. This helps reduce the volume of sludge that must be hauled away each month, thus reducing the overall sludge hauling costs.

Currently, the concrete foundations are completed and the belt press equipment has been placed on the foundation. The next step is to construct the new building that will protect the equipment from weather and rain.

South Ditch Slope Paving

Design is wrapping up on a project to install concrete slope paving in a section of the District's drainage ditch system. Most of the District's drainage channels are lined with concrete slope paving. There is a single section of drainage ditch - just west of Pitts Road and Austin Elementary - that was never lined with

concrete slope paving. Last year, the District saw slope soil failures in the ditch, likely caused by the repeated shrink and swell cycles the clay soils have experienced over time. Repairing the slopes after each failure was costly and not a permanent solution. To address the problem, the District budgeted to construct concrete slope paving on this final section of drainage ditch. In addition to addressing the soil failure issues, the concrete slope paving will reduce maintenance costs by eliminating the need for mowing. The project is scheduled to go to bid March 2012.

Lift Station No. 5 Electrical Improvements

The District recently completed a project to improve the electrical equipment at Lift Station No. 5. Lift Station No. 5 is located at the intersection of Old South and the entrance to the South Grand apartment complex. The electrical controls were below ground in a dry pit. Sewer gas and groundwater infiltration were causing corrosion of the electrical equipment. This project included removing the existing electrical controls and replacing them with more modern, above ground equipment that meets current National Electrical Code standards and is safer for the District operators to access.

Did You Know?

In the early 1900's there was a railroad running through Pecan Grove - north of and generally parallel to Plantation Drive.

On May 30, 1907, the Imperial Valley Railroad Company was chartered to build a railroad from Sugar Land to Hempstead in Waller County. The company was headquartered in Sartartia (in the vicinity of New Territory) and owned by William T. Eldridge and Isaac H. Kempner - also owners of a 12,000-acre sugar plantation near Pecan Grove and a sugar refinery in Sugar Land.

Between 1907 and 1912, the railroad was built from Sugar Land (through the recently closed Central Prison Unit) to Cabell. Cabell was located at the southeast corner of the modern day Harlem and Owens Roads and was the junction point for a short rail line that ran north

to the Jester Prison Unit. In 1912, Imperial Valley Railroad was sold to the Sugar Land Railway Company.

In 1931, the Sugar Land Railway Company extended the Railroad west through the heart of the Pecan Grove community from Cabell (near Bowie Middle School) to Hickey (west of Foster High School). To the west, the Railroad followed FM 359 from the newly constructed intersection at Mason Road to Holmes Road. It then continued due west, where the current FM 359 curves to the north. If the Railroad were in operation today, it would run right through the middle of Foster High School.

The Railroad was built to transport prison laborers to the sugarcane fields west of Pecan Grove and to deliver the harvested sugarcane to the company refinery in Sugar Land. The line ceased

operation and the tracks west of Cabell were abandoned, followed by the portion of the Railroad through the Prison Farm Area being removed in 1952. The remaining Sugar Land Railway Company tracks were removed in the 1970s. If you look closely at Google Earth today, you can still see remnants of the old railroad bed in various locations along the original route.



Photo provided by Sugar Land Heritage Foundation

**Pecan Grove Municipal
Utility District
2035 FM 359, Suite 13
Richmond, TX 77406**

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www.pecangrovemud.com

PGMUD: Director Election

The 2012 Director Election for Pecan Grove Municipal Utility District is May 12, 2012, between 7:00 a.m. and 7:00 p.m. There are 3 directors up for election. To save money on the cost of the election, the District is contracting with Fort Bend County to hold a joint election with FBISD. This will help reduce the costs of the election. The expected budgeted election cost is \$10,000. Early voting in person will be set by Fort Bend County during designated hours and days from April 30, 2012 to May 8, 2012. Early voting and polling places will be determined by Fort Bend County. This information will be posted on the District website when set.

La Elección de Directores del Distrito de Servicios Públicos Municipales de Pecan Grove del 2012 será el día 12 de mayo de 2012 de 7:00 a.m. a 7:00 p.m. Hay 3 posiciones de director por las que se votará en la elección. Para ahorrar dinero en los costos de la elección, el Distrito está haciendo un contrato con el Condado de Fort Bend para celebrar una elección conjunta con FBISD. Esto ayudará a reducir el costo de la elección. El costo presupuestado que se espera de la elección es de \$10,000. La votación anticipada en persona será establecida por el Condado de Fort Bend durante días y horarios designados desde el 30 de abril de 2012 hasta el 8 de mayo de 2012. La votación anticipada y los lugares de votación serán designados por el Condado de Fort Bend. Esta información será colocada en el sitio web del Distrito cuando sea confirmada.

**WHO
TO
CALL:**

Water, sewer and drainage questions:

PGMUD Customer Service Office

2035 FM 359, Suite 13 (located in the rear of the Sweet Mesquite Center)

(281) 238-5000

Office Hours: 8:00 a.m.-1:00 p.m. & 2:00 p.m.-4:00 p.m.

After Hours: (281) 238-5000; 24 hrs/7 days a week

NOTE: If you have water or sewer related problems, PLEASE CALL US BEFORE YOU CALL THE PLUMBER! We will investigate the problem at no cost to you. If it is found to be a water district-related problem, we will arrange to correct it. If it is not a water district issue, we will provide our advice. Remember, we are here to help!