PLUM CREEK CONSERVATION DISTRICT

Plum Creek Conservation District NEWSLETTER

VOLUME I NUMBER 6 SPRING 2014

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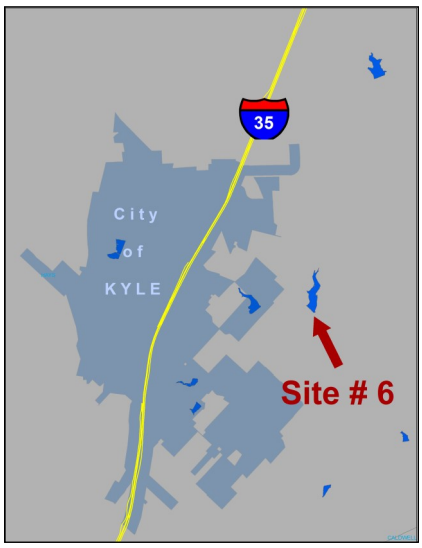
Halloween Flood Aftermath

On October 31st , 2013, areas in our District experienced severe flooding. Some areas received up to 10 inches of rainfall. Fortunately, all of PCCD's dams performed as they were designed to function. It was events such as this that gave rise to the establishment of PCCD. In 1957 PCCD was created by a special act of the Texas Legislature under the authority of what is known as the Conservation Amendment in the Texas Constitution. Its area covers the watershed of Plum Creek and lies in parts of both Hays and Caldwell Counties. During the 1960s and early 70s, twenty-eight earthen dams were built along the tributaries of Plum Creek from Site #1 at the headwaters of Plum Creek in Kyle, down to site #38 in Luling. These dams were designed and constructed under the Soil Conservation Service National and State criteria based on 25 year frequency rainfall amounts. During a normal rain event, PCCD dams impound water in their reservoirs up to a certain level (elevation). Water is then released at an engineered rate through its principal spillway and then into the plunge basin. A plunge basin is designed to catch and dissipate flow, minimizing erosion before releasing water downstream. In cases of an extreme rain event, excess flood waters can be conveyed around the dam via the auxiliary spillway. An auxiliary spillway has a much greater capacity than the principal spillway. The capacities of PCCD's Spillways range from 850 Cubic Feet per Second(CFS) for Site #3 up to 18,747 CFS for site # 14. During the Halloween flooding, Sites #11, #12, #14 and #16 had floodwaters flow around their auxiliary spillways. Many of our sites had considerable amounts of debris wash into them and, unfortunately, a few dams suffered structural damage. Currently, PCCD is in the process of applying for financial assistance through FEMA in order to clean up and repair the effected dams.

BEFORE: Site # 6 - June 2, 2011

AFTER: Site # 6 - November 1, 2013



Winter 2013/2014 Water Levels

Winter 2013/2014 Water Levels

The table below shows water levels for 10 wells that were measured in the Winter of 2013/2014 along with their corresponding lowest recorded water level. If you are interested in finding out the water level in your well and how it compares to other wells in the area, contact us to schedule a time to measure your well. A complete listing of PCCD water levels can be found on our website www.pccd.org

Well	Winter 2013/2014 Levels	Lowest Recorded Level
Cargile	- 44.5	- 66.00
Kosarek	- 50.6	- 50.8
Larsen	- 22.65	- 22.3
Lipscomb	- 91.57	- 93.9
McCormick #1	- 72.45	- 73.00
McCormick #2	- 68.0	- 71.0
Moore	- 66.75	- 70.6
Platt	- 122.1	- 122.35
Lockhart #8	- 76.0	- 108.0
Wells	- 81.2	- 90.35

Tips for Wellhead Protection

Because each well provides a direct route to the aquifer, you will need to take special precautions to protect the wellhead .

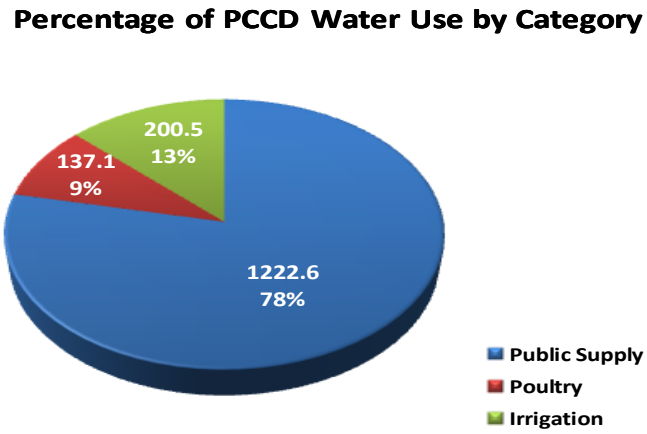
- Do not store or use chemicals near the wellhead.
- Do not mix pesticides, rinse tanks, or store gasoline within 150 feet of a well.
- If the wellhead is in a storage shed or well house, do not store contaminants such as fuels or pesticides in it.
- If backflow-prevention devices are not installed on hoses, reduce the potential for backflow when mixing chemicals. First fill a “nurse” tank (mobile storage tank) with well water; then use that water to fill the chemical sprayer away from the wellhead
- Build livestock holding areas at least 150 feet away and downslope of the wellhead and direct stormwater runoff away from the wellhead. Runoff from livestock holding pens and pastures can contaminate groundwater with bacteria, nitrates, and veterinary drugs.
- Inspect the wellhead every month, and address any breakage, soil disturbance by burrowing animals, or flooding of the wellhead. The well owner can repair and maintain the wellhead pad; a licensed Contractor should repair casing breakage.

For more info check out the AgriLife Extension Website: http://twon.tamu.edu/

* source: “Texas Well Owner ‘s Guide to Water Supply”, Texas A&M Agrilife Extension

2013 PCCD Water Use

In 2013, 1,560 acre-feet of water was used by PCCD's permit holders. An acre foot (325,851 gallons) is a volume of water that will cover an area of one acre to the depth of one foot. Permits currently fall into one of three water use categories: public supply, irrigation, or poultry production. To the right is a pie chart which indicates the percentage of total water use shown by category. Complete water use records will be available in PCCD's upcoming 2013 water use report.



Groundwater Management Planning

Currently, PCCD is involved in groundwater regional planning with two Groundwater Management Areas- GMA 10 and 13. There is a total of 16 GMAs in the state of Texas. GMAs were the result of legislation passed in 2002 and 2005 for the purpose of regional planning, and to develop Desired Future Conditions (DFC). DFCs are defined as *"'the desired, quantified condition of groundwater resources (such as water levels, spring flows, or volumes) within a management area at one or more specified future times as defined by participating groundwater conservation districts within a groundwater management area as part of the joint planning process."* A DFC, in essence, is a management goal that addresses how an aquifer should be managed. A DFC answers the question- what do you want your aquifer/s to look like in the future? For example, a DFC could be based on spring flow or, perhaps, on water levels. The process for determining DFCs, involve running computer models (developed by the Texas Water Development Board) which simulate the effects of pumping an aquifer. After running a model through several iterations of various pumping from high to low, one will be able to see a range of impacts. During the 83rd legislative session, Senate Bill 660 added additional requirements for GMAs to consider when developing DFCs. Unfortunately, the resources for completing these new requirements were not included in the bill and were left up to the GMAs. Every 5 years a GMA must propose and adopt DFCs. The deadline for this round is May 1, 2016. It is anticipated that DFCs will be proposed sometime in 2014 for both GMA 10 and GMA 13. All groundwater districts in a GMA, including PCCD, will hold local public hearings on these newly proposed DFCs. Once DFCs are adopted, the TWDB issues Modeled Available Groundwater (MAG) numbers which are required to be considered by Groundwater Conservation Districts when granting permits. A MAG is the amount of water that may be produced on an average annual basis to achieve a DFC. The aquifers concerning GMA 10 planning are the Trinity, Fresh Edwards, Saline Edwards, Leona, Buda and Austin Chalk. In GMA 13 aquifers include the Wilcox, Carrizo, Edwards, Yegua-Jackson, Queen City, Reklaw, Sparta, and Weches. Learn more about these aquifers by visiting our website and going to the Geological Information link. Below is a table listing our current DFCs.

GMA	Aquifers	Adopted DFC	Adoption Date
10	Trinity Group	A regional average well drawdown during average recharge conditions that does not exceed 25 feet (including exempt and non-exempt well use)	August 23, 2010
10	Saline Edwards	Well drawdown at the saline-freshwater interface (the so called Edwards "bad water line") in the northern subdivision of GMA 10 that averages no more than 5 feet and does not exceed a maximum of 25 feet at any point on the interface.	August 4, 2010
13	Carrizo-Wilcox, etal	In Reference to scenario 4 (GAM run 09-034), and an average drawdown of 23 ft., for the Sparta, Weches,Queen City, Reklaw, Carrizo, and Wilcox Aquifers.	April 9, 2010

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The Plum Creek Conservation District's Newsletter is available via email. If you or someone you know would like to receive our Newsletter via email rather than US Mail then contact our office at (512) 398-2383.

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