PLUM CREEK CONSERVATION DISTRICT

Plum Creek Conservation District NEWSLETTER

VOLUME I NUMBER 8 2016

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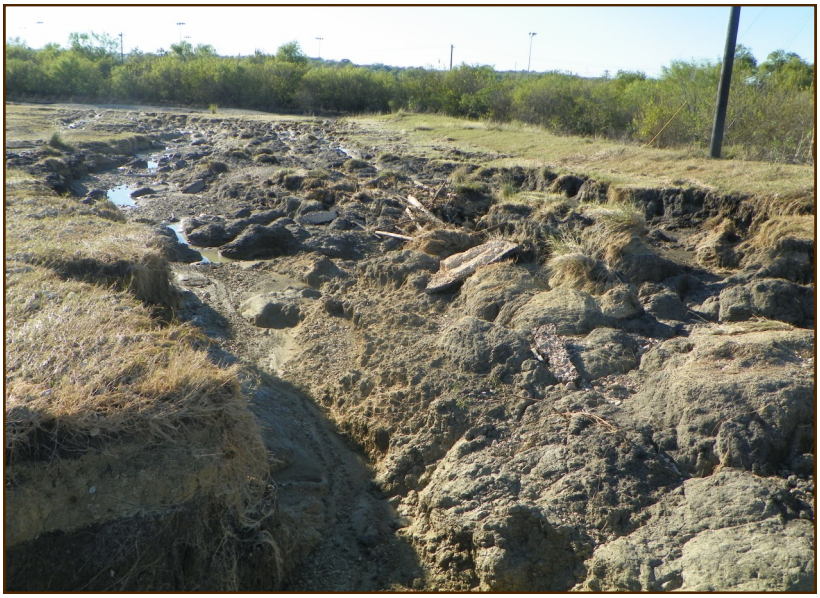
Halloween Flooding— 2015

As many of you are aware of, Texas' climatic cycle of droughts and floods can be quite extreme. On October 30, 2015, areas in Plum Creek Conservation District experienced flooding similar to flooding back two years ago in October of 2013. Several of PCCD's dams had their auxiliary spillways activated, causing, in some cases, moderate to severe erosional damage. As with the 2013 flood, there was a significant amount of debris washed in and around the structures. The dams that were affected by the flooding were sites 2,5,6,7,10,11,12 and 14. PCCD is currently in the process of applying for flood relief funding. Back in 2013 PCCD received funding through a Federal Emergency Management Agency (FEMA) disaster assistance program; however, this time the necessary funds may be provided by the Natural Resources Conservation Service (NRCS) through its Emergency Watershed Protection (EWP) program .

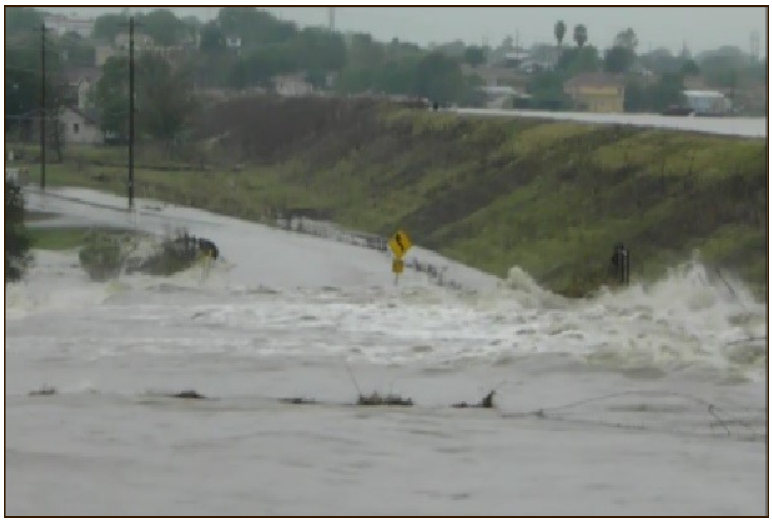
During any flooding event, PCCD monitors the integrity of each of its dams. If a dam becomes in danger of failing, then PCCD would activate its Emergency Action Plan (EAP). Through the EAP, local emergency personnel would evacuate certain areas, if necessary, and steps would be taken to secure the dam if possible. Emergency notification to landowners located in the flood inundation areas would be done primarily through the Reverse 911 system. Residents in Caldwell and Hays county can register their cell phones for the Reverse 911 service through CAPCOG Capital Area Council of Governments' Regional Notification System at http://wireless.capcog.org or call (866) 484-3264. All of PCCD's "high hazard" dams require an EAP.



Site # 6 Flood Damage to Auxiliary Spillway

When originally built back in the 1960s and 70s, many of our dams were designed to withstand a 25 year flood event. Now, the Texas Commission on Environmental Quality (TCEQ) —Dam Safety Division requirements call for a dam to be able to withstand the Probable Maximum Flood (PMF). The PMF is the maximum runoff condition resulting from the most severe combination of hydrological and metrological conditions that are considered reasonably possible to occur. To meet the PMF it would be necessary for PCCD to rehabilitate many of its dams.

Currently, Site 5 is the only dam that has been rehabilitated up to TCEQ standards, while Site 6's rehabilitation project is underway. Preliminary rehabilitation plans have been completed for four (4) "high hazard" dams (Site 10, 12, 21,and 28) and now await to see whether the necessary federal and/or state funding becomes available .



Site # 6 Auxiliary Spillway Flood Release on 10-30-2015

2015/2016 Water Levels

Spring 2016 Water Levels

The table below shows water levels for 11 wells that were measured in the Winter of 2015/2016 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 at www.pccd.org

Well	Winter 2015/2016 Levels	Lowest Recorded Level
Kosarek	- 47.25	- 50.8
Larsen	- 21.45	- 22.8
Lipscomb	- 90.05	- 93.9
Lockhart #8	- 79.1	- 108.0
McCormick #2	- 66.45	- 71.00
McCormick #1	- 71.7	- 71.75
Moore	- 64.65	- 70.6
Nohra	- 105.92	- 130.67
Platt	- 123.7	- 123.7
Wells	- 80.95	- 90.35
Williams	- 75.75	- 83.05

Site 6 Rehab Project Update

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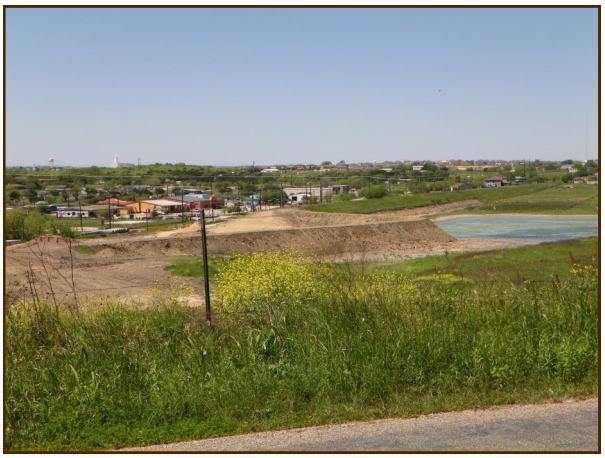
Site 6 Rehab construction project is now in full swing and is currently about 25 % finished with expectations of finishing in the Fall of 2017. The rehabilitation project is being performed by Archer Western. They have currently closed Goforth road that runs along the downstream area due to road realignment and safety concerns. The detour routes traffic using Cotton Gin Rd. and Shady Oaks Dr. Businesses in the area, such as La Mexican, Perdue Auto Sales, and Un Dollar Y Mas, along with the North Hays Optimist Sports Complex, have open access for their customers and the public.



One of the first construction objectives was the building of the temporary coffer dam pictured to the left. The purpose of the coffer dam is to provide protection from flooding during the construction phase. The triangle shaped coffer dam height is almost equal the top of the dam.

On May 27, after significant rains, the lake level rose to approximately 4 ft. below the crest of the coffer dam. With an additional 6-8 inches of rain forecasted, Site 6's EAP was initiated in order to plan for the possible overtopping of the coffer dam. Plastic tarps were placed on the coffer dam to prevent erosion, a channel was excavated in the auxiliary spillway by Archer Wester to slow the rate of water level increase in the reservoir, and residences immediately downstream of the dam were put on alert for further notification by the Hays County office of Emergency Management. Fortunately, the forecasted rains did not occur and since then the reservoir has drained to a safe level.

When finished, the new dam will contain approximately 994,000 pounds of steel and 6,933 cubic yards of concrete. The new dam will be only one of 3 dams in the state of Texas with a labyrinth weir type design.

The beginning stages of the dam's stilling basin are being constructed as pictured to the right. The stilling basin is being built in and under the present location of Goforth Rd. Because of this, Goforth Road's new location will be shifted southward. More specialized fill and concrete will be laid within the basin along with other added structural components of the dam before the stilling basin will be complete.

GMA 10 & 13 DFC Hearings

After meeting with Groundwater Conservation District representatives in Groundwater Management Areas (GMA) 10 & 13, the PCCD has completed the process of proposing "Desired Future Conditions" (DFCs) for all relevant aquifers.

What are DFCs? DFCs are mandated by State law requiring Groundwater Management Areas (made up of individual groundwater conservation districts) in Texas to propose and eventually adopt a DFC. A DFC is, in essence, 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 from 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. GMAs must consider a number of things when proposing a DFC which include (1) aquifer uses or conditions, (2) the water supply needs and water management strategies included in the state water plan, (3) hydrological conditions, (4) other environmental impacts, including impacts on spring flow and other interactions between groundwater and surface water, (5) the impact on subsidence, (6) socioeconomic impacts reasonably expected to occur, (7) the impact on the interests and rights in private property, (8) the feasibility of achieving the desired future condition, and (9) any other information relevant to the specific desired future conditions . In addition, a DFC must provide a balance between the highest practicable production of water and the conservation, preservation, and protection of the aquifer.

Below are listed the proposed DFCs for GMA 10 & 13 that are directly related to our District.

GMA	Aquifers	Proposed DFC 2016	Proposed 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)	March 14, 2016
10	Saline Edwards	No more than 75 feet of regional average potentiometric surface drawdown due to pumping when compared to pre-development conditions.	March 14, 2016
13	Carrizo-Wilcox, etal	The first proposed desired future condition for the Carrizo-Wilcox/Queen City/Sparta Aquifers in Groundwater Management Area 13 is that 75 percent of the saturated thickness in the outcrop at the end of 2012 remains in 2070. This desired future condition is considered feasible despite model predictions to the contrary as detailed in GMA 13 Technical Memorandum 16-08. In addition, a secondary proposed desired future condition for the Carrizo-Wilcox/Queen City/Sparta Aquifers in Groundwater Management Area 13 is an average drawdown of 48 feet for all of GMA 13. The drawdown is calculated from the end of 2012 conditions to the year 2070. This desired future condition is consistent with Scenario 9 as detailed in GMA 13 Technical Memorandum 16-01 and GMA 13 Technical Memorandum 16-08.	April 27, 2016

PCCD has finished holding two hearings for the proposed "Desired Future Conditions". GMA 10's hearing was held on May the 17th and GMA 13's DFC hearing was held on June the 21st. Comments , both oral and written, will then be reviewed by the GMAs before a DFC is adopted. Once a DFC is adopted by the GMA it is then sent for approval to each individual Groundwater Conservation District. Finally, DFCs are then incorporated into a district's management plan and rules.

Copies of the DFCs along with supporting documentation are available at www.pccd/News and Notification.com and at our office . June 30th was the deadline for submitting comments concerning GMA 10's DFC and August 1st , 2016, for GMA 13.