## CITY OF BASTROP Hunter's Crossing Channel Outfall Drainage Analysis

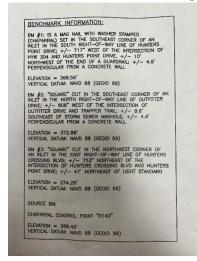
## **SCOPE OF WORK**

Professional survey services for the drainage analysis of Hunter's Crossing Channel outfall. The outfall is circled in blue as Parcel ID 99624. We have permits to enter Parcels 23660 & 36544 just south of the circled parcel. The purpose of this survey is to determine where flooding occurs when the water in retention in the circled parcel overflows and surface runoff runs to the south. FEMA floodplain shows flooding occurs through Parcel ID 23660 but actual storm events flood the parcels to the east (36554, 78049, 37407, 37528, etc.) instead. The bottom picture shows actual flooding during a storm in 2015. Location map with Area of Work and access information attached to end of document.



## Services:

 Establish horizontal and vertical control based on Texas State Plane, Central Zone NAD 83 (2011) and NAVD 88 based on control points. Hunter's Crossing benchmarks shown in image below but may need to find a closer control point.



- Take topographic elevation shot of water elevation in retention channel on Parcel ID 99624.
- Take topographic elevation shots at Top of Bank (TB) of the retention channel in area shown in Area of Work.
- Show the perimeter and depth of existing gabion wall at southernmost end of retention channel. Include pictures of condition.
- Show existing utilities/fences/areas of interest.
- Create a topographic surface with a high level of detail within Area of Work. 25' x 25' grid topo shots for flat areas and break the grid to catch Low Points (LP) and High Points (HP) where spotted. Base line of the grid should be along the East-West property line separating Parcel ID 99624 from the other two parcels.



