



Nueces River Authority
Steering Committee and Stakeholder Update #
(5th Quarter of FY 2016-17)
September – November 2016



December 12, 2016

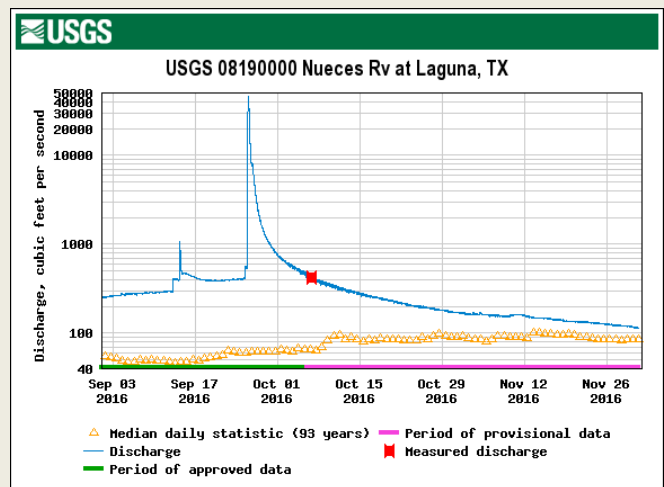
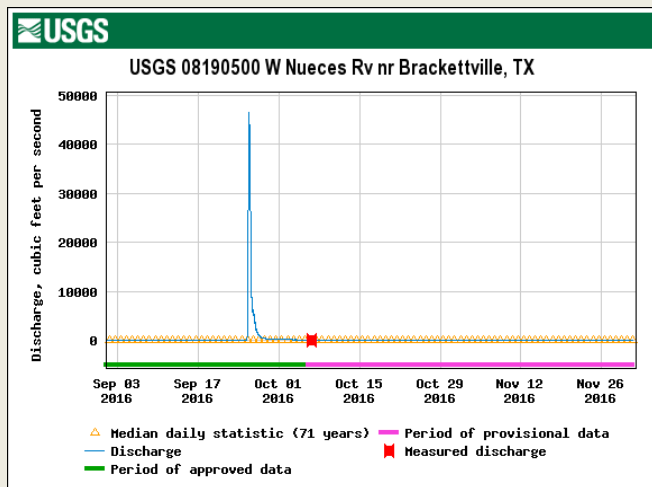
Routine Clean Rivers Program Monitoring

The Nueces River Authority conducted routine quarterly water quality monitoring at 10 coastal stations and 37 river stations during the 5th quarter. There was sufficient flow to collect water samples at every station. In addition to quarterly sampling, 24 hour dissolved oxygen monitoring was also conducted at 4 stations. Data was obtained from the Nueces River (at FM 624 and in Asherton) and on the Atascosa River (in Pleasanton and near McCoy). 24 hour data collection was attempted on the Aransas Creek at US 181 near Skidmore but streamflow was insufficient upon our return trip the next day so the data had to be rejected.

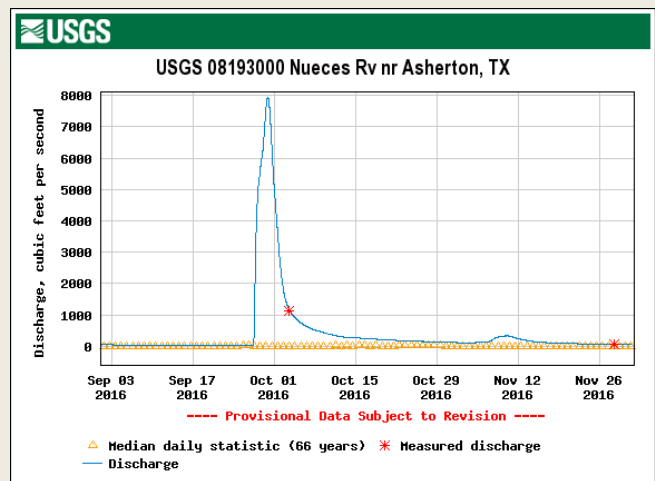


Flooding in the Nueces River Basin

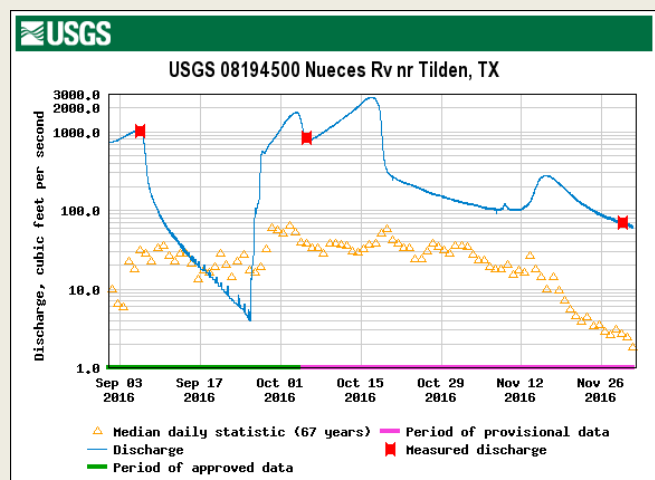
Much of the Nueces River Basin and adjoining basins were rapidly returning to drought conditions in the fourth quarter (June – August 2016) until heavy rains in the Upper Nueces River Basin resulted in a major upstream flood event. The USGS stream gauge on the West Nueces River near Brackettville recorded a peak flow of approximately 46,000 cubic feet per second (CFS) on September 25th, and on the same day, the East Nueces River at the Laguna gauge recorded a peak flow of approximately the same amount, 46,000 CFS. The following day, flows from both the West and East Nueces had joined resulting in a peak flow of approximately 68,000 CFS at the gauge below Uvalde on highway 90. Flows at those levels are approximations but it's safe to say a lot of water was flowing down river.



It took approximately 3 days for the peak flow to travel from the stream gauge near Uvalde to the next gauge downstream, which is located in Asherton. A peak flow of approximately 8,000 CFS occurred on September 29th. However, the topography of the middle Nueces (Southern Texas Plains) slowed the water down resulting in a longer duration flood with lower peak flows. The Nueces River at Asherton was in flood stage for four days, compared with around 10 hours for the Laguna gauge.

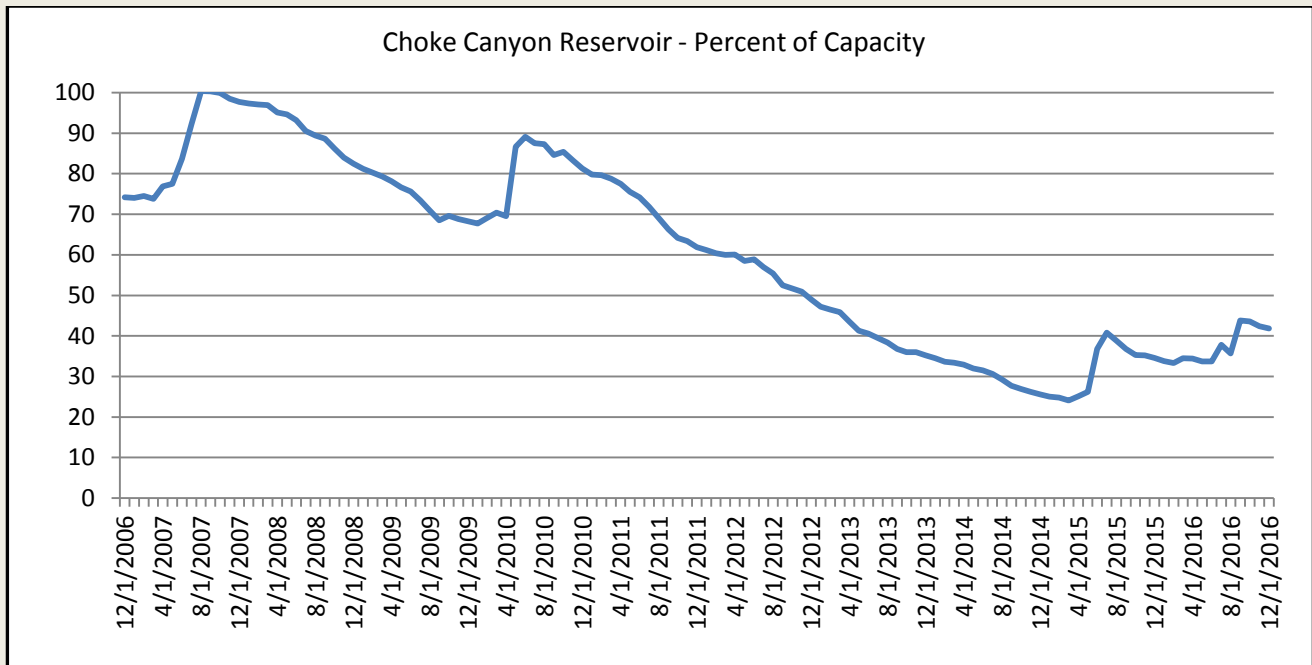
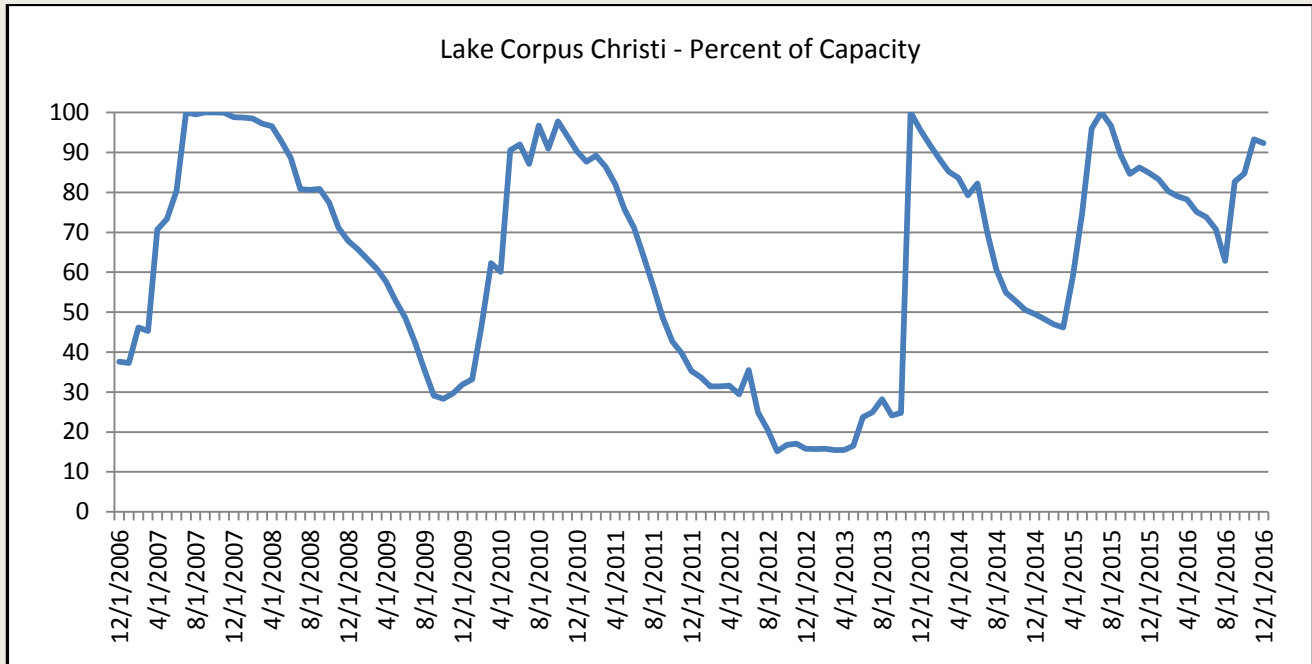


The Nueces River crested in Cotulla on October 4th with a maximum flow rate of around 3,800 CFS, by then only a minimal flood event. Peak flow arrived at the gauge near Tilden on October 16th at rate of approximately 2,700 CFS and at the Three Rivers gauge around October 19th at approximately 1550 CFS. All in all, it took approximately 25 days for flows from the Upper Basin to travel to Lake Corpus Christi.



Lake Levels

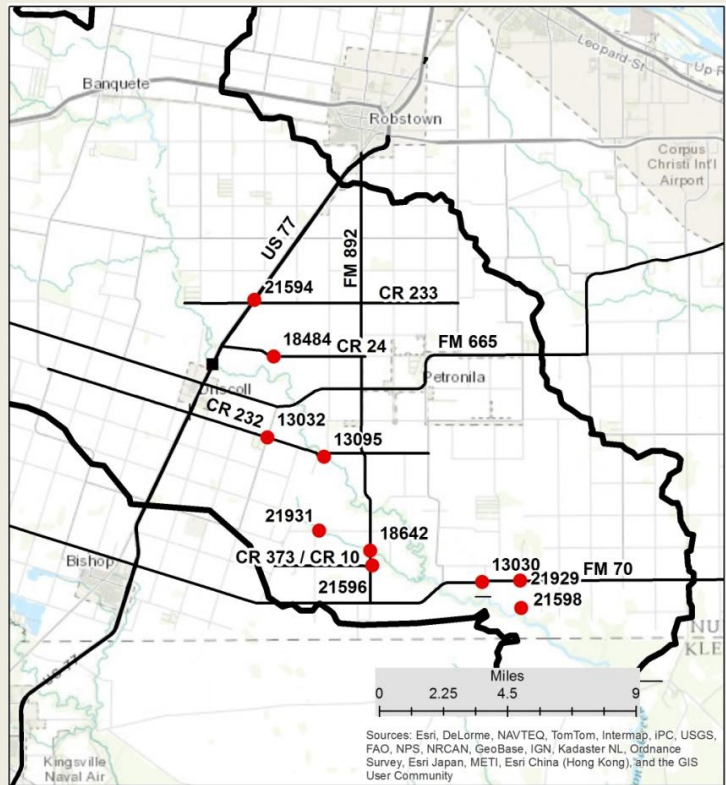
Lake levels for the 5th quarter edged up from 54.3% to 55.4% of combined capacity (Choke Canyon + Lake Corpus Christi). For the Daily Reservoir System and Pass-Thru Status Report, please visit the website <https://www.nueces-ra.org/CP/CITY/passthru/index.php>.



Petronila Creek Tributary Study

Phase 3 of the Petronila Creek Tributary Study, which analyzes chloride, sulfate, and TDS at ten sites, kicked off in October. Specific conductance trends over the course of the first two months of the study are summarized in the chart below.

Site #	Oct. 2016	Nov. 2016
21594	34,100 μ mhos	32,300 μ mhos
18484	48,700	45,300
13032	dry	dry
13095	16,200	19,000
21931	18,500	32,600
18642	45,300	37,600
21596	12,400	20,600
13030	35,000	35,900
21929	36,300	33,200
21598	41,400	36,700



Surface Water Quality Monitoring (SWQM) Workshop

The annual SWQM workshop was held in Bandera in on November 1-3. Topics of discussion included: water quality testing procedures, data management and analysis, desalination, mussel monitoring, groundwater communities, and updates on statewide water issues including the effects of coal tar sealants on human health and aquatic life. Field demonstrations included water sampling techniques, flow measurement demonstrations, mussel identification, and benthic collection.



Oso Bay Total Maximum Daily Load

Since 2002, Oso Creek (Segment 2485A), which flows 28 miles to the confluence of Oso Bay in Nueces County has been identified as being impaired for having bacteria concentrations that exceed state water quality standards. Since 2003, the TCEQ and the TSSWCB have conducted studies of bacteria sources and quantities in the Oso Creek



watershed. Based on the results of those studies, a TMDL for Oso Creek is being developed to address the contact recreation impairment. Staff from the Center for Coastal Studies at Texas A&M University – Corpus Christi and the Coastal Bend Bays Foundation is disseminating information to the public.

Learn more about the Oso Bay TMDL and/or the Oso Creek Watershed Public Outreach at the TCEQ project page: <http://www.tceq.texas.gov/waterquality/tmdl/67-osobaybacteria.html>:

Nueces River Watershed Partnership – Implementation of the Lower Nueces River Watershed Protection Plan (WPP)

The quarterly Nueces River Watershed Partnership Stakeholder Meeting was held on November 9, 2016 at the Hilltop Community Center in Corpus Christi. The primary topic of the meeting was to review the WPP management measures and task the steering committee members with selecting their top three to five priorities. Rocky Freund, watershed coordinator, is compiling the results and will present them to the steering committee for approval at the February 15, 2017 meeting. Freund will use the prioritization as a guide for seeking implementation funding.

The discussion yielded three additional projects for consideration:

- Regularly scheduled trash collections events within the watershed. This may be a feasible alternative to permanent solid waste transfer stations.
- Distribution of leashes with pet waste bag holders. This would complement the pet waste collection stations, and is being incorporated into, the Coastal Bend Bays and Estuaries Program (CBBEP) contract with NRA for FY 2017.
- Installation of trash can lids at Hazel Bazemore Park for the thirty trash cans that were installed in FY 2014. Park visitors are using the cans, but the trash is being scattered by raccoons at night.

For more information about the Partnership and the WPP, visit <http://www.nuecesriverpartnership.org> or contact Rocky Freund at (361) 653-2110 or rfreund@nueces-ra.org.

Nueces River Basin

NRA Monitoring Stations

◆ NRA Stations



San Antonio-Nueces Coastal Basin



Nueces-Rio Grande Coastal Basin

Monitoring Stations

◆ NRA

