

Nueces River Authority Steering Committee and Stakeholder Update #6 (6th Quarter of FY 2016-17) December 2016 – February 2017



March 7th, 2017

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 6th quarter. There was sufficient flow to collect water samples at every station.

The Leona River, near Uvalde (below), is starting to look like a spring fed river again after eight plus years since the last time the milky blue water was observed. Base flow on the Leona River is associated with high water levels in the Edwards Aquifer near Uvalde. The milky blue water appearance is due to the chalky layer the spring water flows through before its emergence near FM 140.



In addition to quarterly sampling, 24 hour dissolved oxygen monitoring was also conducted at 3 stations. Data was obtained from the Atascosa River at FM 541 near McCoy (Station ID 20764), in Pleasanton (Station ID 12981), and on Aransas Creek at US 181 (Station ID 12941). Dissolved oxygen values were well above the criteria for aquatic life.

Nueces River Basin Lake Levels

Combined capacity (Choke Canyon + Lake Corpus Christi) of the reservoir system for the 6th quarter edged down from 54.4% to 54.0% of capacity. For the Daily Reservoir System and Pass-Thru Status Report, please visit the website <u>https://www.nueces-ra.org/CP/CITY/passthru/index.php</u>.





Supplemental Environmental Project (SEP)

The Nueces River Authority completed a yearlong water quality study in December 2016 examining concentrations of salts and select metals concentrations in the water bodies that drain into the Reservoir System (Choke Canyon Reservoir + Lake Corpus Christi). Monthly monitoring occurred at four (4) stations located on the Atascosa, Frio, and Nueces rivers and on San Miguel Creek. Surface water samples were analyzed for TDS, chloride, sulfate, arsenic, barium and strontium.

Data was obtained under a variety of flow conditions including 2 high flow events that approached flood conditions. However, the majority of the sampling occurred during typical low flow conditions.

Metals only results of the study are summarized in the graphs below. Two minor exceedances to the criteria for arsenic were detected. 10.5 μ g/L of arsenic was detected on the Frio River at SH-16 in May 2016 (streamflow was 0.19 CFS). 10.3 μ g/L of arsenic was detected on the Atascosa River at FM 99 in August 2016 (streamflow was 67 CFS). The criteria for arsenic is 10.0 μ g/L. No other exceedances were detected.









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 2016. Specific conductance readings from the 6th quarter are summarized in the chart below.

Site #	Dec. 2016	Jan. 2017	Feb. 2017
21594	7,500 µmhos	28,400 µmhos	30,200 µmhos
18484	26,700	45,300	46,600
21932	1,080	dry	dry
13095	1,180	16,800	18,300
21931	2,940	24,600	38,000
18642	3,800	35,700	37,600
21596	16,600	22,300	24,800
13030	31,900	35,200	37,500
21929	32,200	35,800	34,800
21598	34,500	38,300	40,400







NRA Coordinated Monitoring Meeting

The Annual Clean Rivers Program (CRP) Coordinated Monitoring Meeting will be held on March 30th from 1:00 -4:30 pm at the Choke Canyon Room at the Corpus Christi Water Department offices located at 2726 Holly Road in Corpus Christi. In addition to coordinating CRP monitoring activities, the meeting also provides an overview of water quality concerns and impairments in the Nueces River Basin, Nueces-Rio Grande Coastal Basin and the San Antonio Coastal Basin. All stakeholders and interested parties are welcome to attend.



Outreach and Education

NRA's Education and Outreach Program reached out to 2,726 people from December through February using custom made tools including NRA's watershed, rainwater, and groundwater models. NRA staff will be demonstrating the watershed model at the Earth Day/Bay Day event hosted by the Coastal Bend Bays Foundation on Saturday, April 8th at Heritage Park in Corpus Christi. It's free to the public and runs from 10 AM to 5 PM. For more information about outreach and education, contact <u>slewey@nueces-ra.org</u>.



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 TCEO 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.



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

Upcoming meetings will be on March 30th, April 27th, and May 25th at the South Texas Botanical Gardens located at 8545 S. Staples Street in Corpus Christi. Meetings are at 6:00 pm.

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

The quarterly Nueces River Watershed Partnership Steering Committee Meeting was held on February 15, 2017 at the Hilltop Community Center in Corpus Christi. The primary topic of the meeting was to review the WPP management measures prioritization and implementation updates.

Below are the top ten ranked management measures and an update of work towards implementation.

- 1. Trash Collection Events this measure was added by the stakeholders as an alternative to permanent solid waste transfer stations. An event is being planned to coordinate with the Nueces River Preservation Association's volunteer cleanup (priority #5) on April 22, 2017.
- 2. Trash Can Lids at Hazel Bazemore Park this measure was also added by the stakeholders to try and keep windblown trash out of the river. A proposal for funding submitted by the Nueces River Authority (NRA) to the Coastal Bend Bays and Estuaries Program (CBBEP) is under consideration.
- 3. & 4. OSSF Repair and OSSF Replacement this project is being funded by the Texas Commission on Environmental Quality (TCEQ). The contract was finalized in mid-February. The project includes an OSSF maintenance workshop where people will be able to sign up for the inspections. Then based on the results of the inspection, fill out an application for repair / replacement. The workshop will be scheduled after a TCEQ/NRA orientation meeting schedule for March 8, 2017.
- 5. Volunteer Cleanups next one is the NRPA's annual river cleanup on April 22, 2017.
- 6. Hyacinth Control –an aerial survey of the river above Lake Corpus Christi is scheduled for May 16, 2017. The goal is to find the source of the hyacinth and begin working to eliminate it beginning at the source.
- 7. Feral Hog Workshops this topic will be included in the Texas AgriLife Extension's Spring Ranch Management Field Day scheduled for May 18, 2017.
- 8. Connections to the City of Corpus Christi Wastewater System TCEQ is considering funding the planning phase of this project beginning fiscal year 2018. Funding for implementation will be sought in the next phase of the project.
- 9. Wildlife Management Workshops
- 10. Pet Waste Collection Stations and Pet Waste Bay Holders CBBEP is providing funding for this this project. Nueces County Commissioner Mike Pusley has agreed to have two stations installed at Hazel Bazemore Park, and San Patricio County Parks Director Ski Zagorski Pusley has agreed to have a station installed at La Fruta Park and one at an RV park.

The next stakeholder meeting is scheduled for May 10, 2017. For more information about the Partnership and the WPP, visit <u>http://www.nuecesriverpartnership.org</u> or contact Rocky Freund at (361) 653-2110 or <u>rfreund@nueces-ra.org</u>.

Thank you! Sam Sugarek Director of Water Quality Programs Nueces River Authority – Coastal Bend Division