Nueces River Authority Steering Committee and Stakeholder Update for Q7 March - May 2021

Basin 20 - San Antonio-Nueces Coastal Basin

The San Antonio-Nueces Coastal Basin covers approximately 3,100 square miles, draining to Copano and St. Charles bays. The basin is largely rural, with the dominant industries being crop farming and cattle rearing. Monitoring sites in Basin 20 are located on the tidal and above tidal portions of the Mission and Aransas rivers and Poesta Creek (see map on page 8). Tidal portions of the Mission and Aransas rivers have been impaired for the contact recreation standard, bacteria, since the 2004 Assessment. The above tidal portion of Aransas River and Poesta Creek are listed for the same parameter in the 2020 Assessment.



Mission and Aransas River Sampling

Nueces River Authority conducts routine water quality monitoring at 7 locations in the Mission/Aransas watershed (map of sampling sites on page 8). For FY 2021, one site located on Aransas River Tidal at US 77 (Station 12948) was discontinued due to the completion of the TMDL monitoring project by TWRI. An existing TCEQ site, located on Chiltipin Creek Tidal at the end of FM 631, was added in its place. The new site, located on private property, includes bi-annual metals monitoring. Six sites were visited on March 16th. Station 12941, located on Aransas Creek at US 181 near Skidmore (pictured below), did have enough water to sample this quarter (E. coli was 47 MPN/100mL).



Basin 21 - Nueces River Basin

The Nueces River Basin covers approximately 17,000 square miles in South-Central Texas. The Nueces River winds 315 miles from its source in the Edwards Plateau near Rock Springs (elevation 2,402) through the brush country of the South Texas Plains to its end in Nueces Bay, located near Corpus Christi. The Nueces River is joined by the Frio and Atascosa rivers near the town of Three Rivers. Nueces River Authority conducts routine water quality monitoring at 25 locations throughout the Nueces River Basin (see map on page 9).



Nueces River Basin 24-hour Dissolved Oxygen Monitoring

Nueces River Authority conducts twenty-four hour dissolved oxygen monitoring at 3 locations in the Nueces River Basin (see map of sampling locations on page 9). Dissolved oxygen monitoring was conducted on the Leona River at FM 140 (Station 18418) on May 24-25th.



Nueces River Basin – Metals Sampling

Nueces River Authority recently added metals sampling at 5 locations upstream of the reservoir system (Choke Canyon Reservoir and Lake Corpus Christi). Monitoring sites include Atascosa River at FM 99 (Station 12980), Choke Canyon Reservoir at FM 99 (Station 17389), San Miguel Creek at SH-16 (Station 12983), Frio River at SH-16 (Station 13023) and the Nueces River at FM 1042 (Station 12972). These station were monitored for dissolved and total metals on May 5th alongside routine water quality parameters (See map of stations on page #9).



Nueces River at FM 1042 (Simmons Crossing)

Lake Levels

The middle Nueces River Watershed caught some rain in May. Reservoir System Combined lake levels for the reservoir system started off the quarter (March 1st) at 38.2% and rose to 48.0% by the end of May. The pass-thru for May was entirely supplied by runoff from below Lake Corpus Christi and did not come from the lake. 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>.





Basin 22 – Nueces-Rio Grande Coastal Basin

The Nueces-Rio Grande Coastal Basin covers approximately 10,400 square miles in South Texas and includes streams such as the Arroyo Colorado Tidal (Segment 2201) and above tidal (Segment 2202) in the Rio Grande Valley and Petronila Creek Tidal (Segment 2203) and above tidal (Segment 2204), which is a tributary to Alazan Bay located on the northern arm of Baffin Bay.

Arroyo Colorado Above Tidal (Segment 2202)

Station 13079 is located on the above tidal portion of the Arroyo Colorado (Segment 2202) at the US-77 Bridge in

Harlingen. Water quality at Station 13079 was monitored on May 6th. Bacteria levels (260 MPN) were above the standard (126 MPN) during the site visit.

San Martin Lake (Segment 2494C)

San Martin Lake system is located off the Brownsville Ship Channel in the Lower Rio Grande Valley. NRA field staff rented a bat from UTRGV to travel up the shallow waterway on May 6th. The site was monitored on an outgoing tide about a week after a high flow event in the LRGV. Enterococcus bacteria levels were elevated during the site visit (>2400 MPN). If you would learn more about the project, visit the website: <u>http://www.co.cameron.tx.us/llmbsc/</u>



San Martin Lake



Basin 24 – Bays and Estuaries

The Bays and Estuaries region of Texas covers approximately 2,002 square miles along the entire Texas Coast. There are 48 classified estuarine segments that are monitored by several River Authorities and TCEQ regional offices. NRA monitors water quality in 5 of the coastal segments including: Copano/Port/Mission Bay (Segment 2472), Redfish Bay (Segment 2483), Oso Bay (Segment 2485), Laguna Madre (Segment 2491), and Baffin Bay/Alazan Bay/Cayo del Grullo/Laguna Salada (Segment 2492) which includes Los Olmos and San Fernando creeks.

Hidalgo Main and Raymondville Drain (Segment 2491C)

The Hidalgo Main (Station ID 22003) and Raymondville Drains (Station ID 22004) are tributaries of the Lower Laguna Madre (Segment 2491). These two sites are located east of US-77 and were added to the CRP Monitoring Schedule back in 2018. Both sites were visited on April 1st. The Hidalgo Drain had a floating mat of vegetated debris across the drain that was present the last few quarters. No flow measurements were recorded at the Raymondville Drain. Bacteria levels on the Hidalgo Main and Raymondville Drain were 110 MPN and 220 MPN (standard is 126 MPN) respectively. (Disclaimer – Data has not been validated or input into the SWQMIS Database.)



Los Olmos Creek (Segment 2492B)

Los Olmos Creek runs 71 miles from southern Duval County to its confluence with Laguna Salada, an inlet of Baffin Bay. The creek was a new site (Station ID 13034) for FY2019, located at the bridge crossing at US 77 south of Riviera. NRA field staff visited the site on April 1st. Salinity values were 70.1 PSU (seawater is around 35 PSU) and the shallow waterbody (about 1 foot deep). Bacteria concentrations were very high on the site visit (>2,400 MPN), same as the last 6 quarters. The creek did get some fresh water from storms at the end of the quarter.



Los Olmos Creek at US 77 near Riviera





