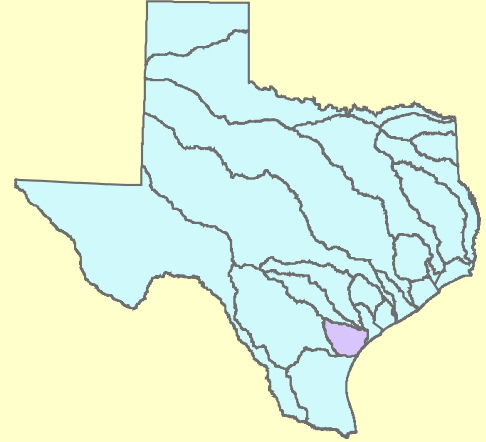


Nueces River Authority
Steering Committee and Stakeholder Update #2
December 2019 - February 2020

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. 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 is listed for the same parameter in the 2016 Assessment.



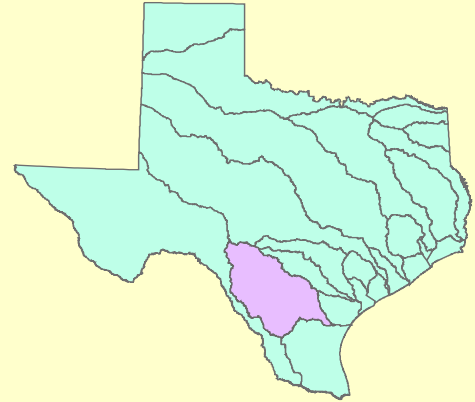
Mission and Aransas River Sampling

Nueces River Authority conducts routine water quality monitoring at 7 locations in the Mission/Aransas watershed. All seven sites were visited on December 10th. Field staff were caught up in a brief but heavy rain out on the Aransas River Tidal portion (Station 12948 – Aransas River at US 77). Air temps were in the low 50s and the rain was blowing in sideways but still not a bad day in the field. Bacteria concentrations were 32 MPN compared to the standard of 35 MPN.



Basin 21 - Nueces River Basin

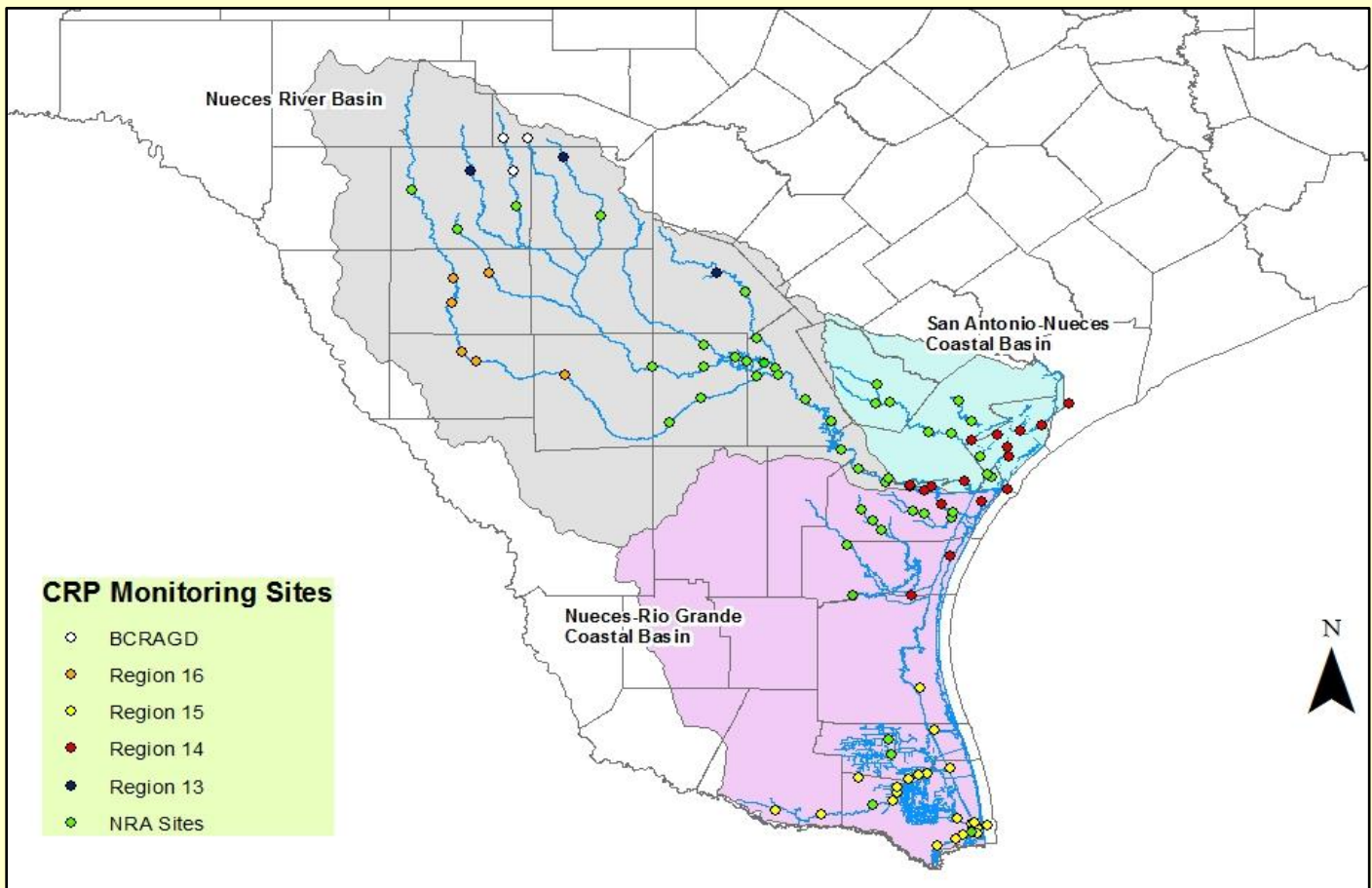
The Nueces River Basin covers approximately 17,000 square miles in South-Central Texas. The Nueces River winds 315 miles from its source in the Edwards Plateau near Rock Springs (elevation 2,402) through the brush country of the South Texas Plains to its end in Nueces Bay, located near Corpus Christi. 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 28 locations throughout the Nueces River Basin (see map on page 9). One station on San Miguel Creek was dry but all of the other stations had water. No 24-hour dissolved oxygen monitoring occurred in the first quarter.

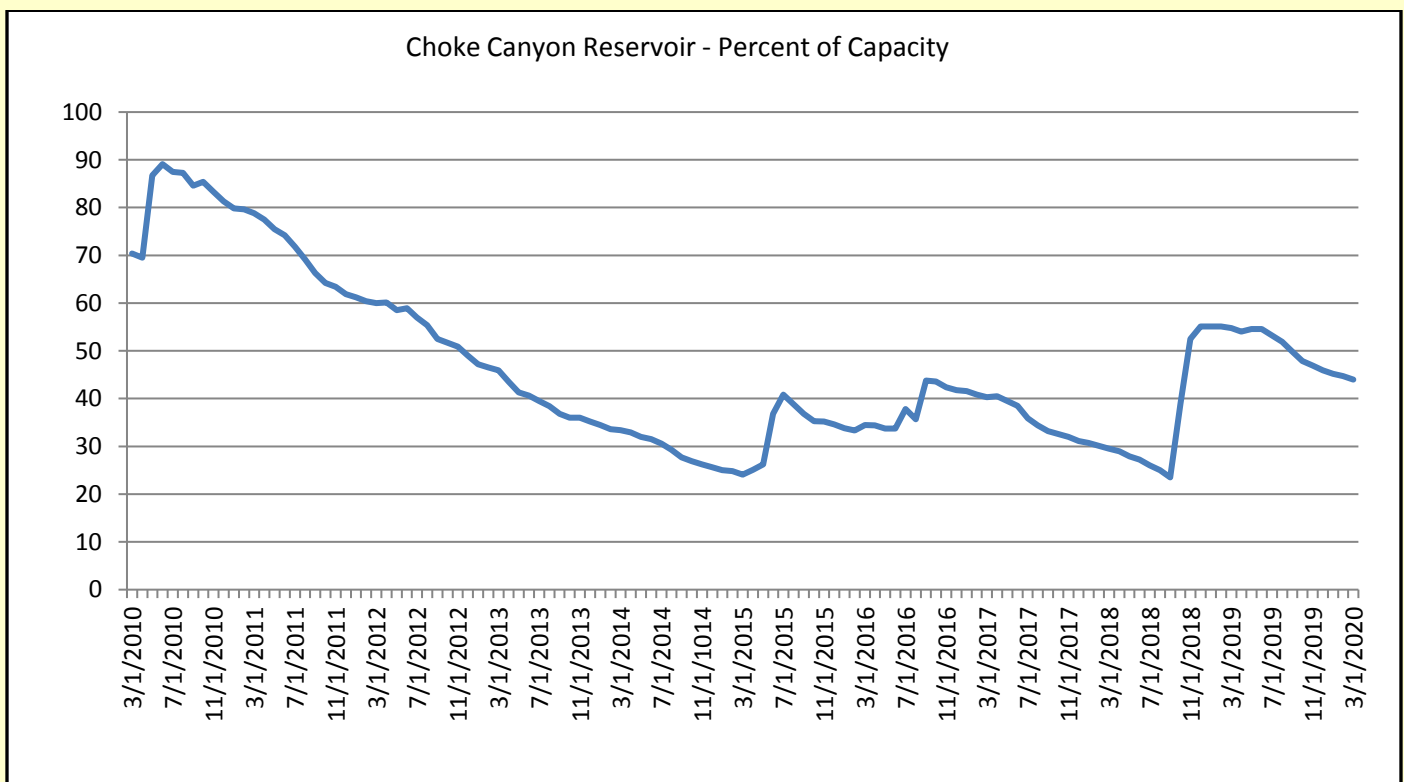
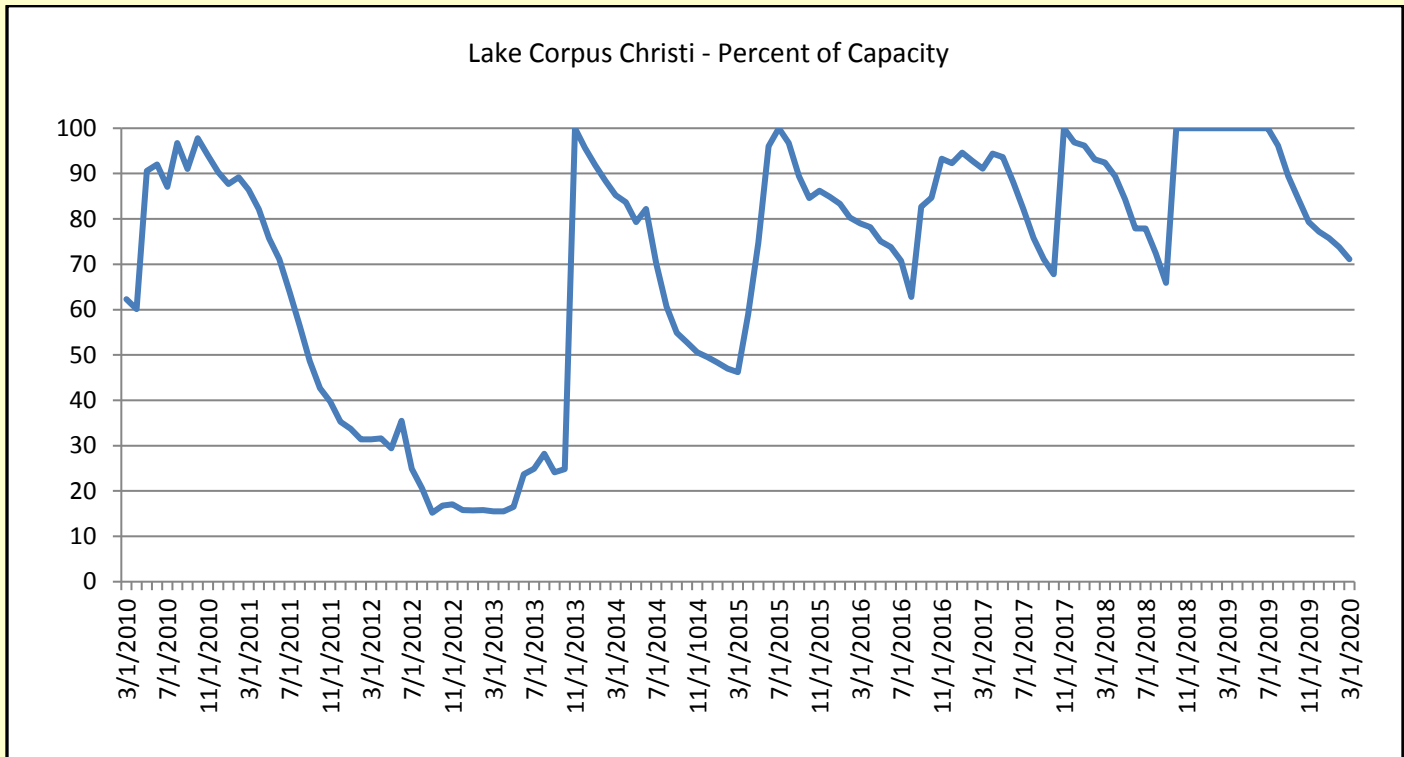
SWQM/CRP Coordinated Monitoring Meeting

Nueces River Authority is hosting the annual Coordinated Monitoring Meeting on April 1st from 1:00-4:30pm at room 210 in the Regional Transportation Authority building located at 602 N. Staples street in Corpus Christi. TCEQ Regions 13 – San Antonio, 14 – Corpus Christi, 15 – Harlingen, 16 – Laredo will be attendance along with the Bandera County River Authority and Groundwater District. The purpose of the meeting is to discuss water quality concerns and impairments in the area and to coordinate state funded monitoring efforts. The meeting is open to the public and stakeholder involvement is urged.



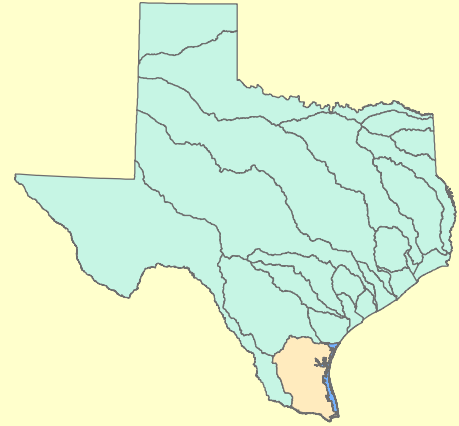
Lake Levels

Combined lake levels for the reservoir system dropped from 54.6% to 51.1% by the end of the quarter. For the Daily Reservoir System and Pass-Thru Status Report, please visit the website <https://www.nueces-ra.org/CP/CITY/passthru/index.php>.



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 February 11th. Sampling was conducted during a warm (83°F) and cloudy morning before an approaching cold front. Bacteria levels (104 MPN) were below the standard (126 MPN) during the site visit. A lot of time and money has been spent on water quality improvements in the Rio Grande Valley. Upgrades to WWTPs and the use of BMPs are important because the waterbody is almost entirely composed of effluent from approximately 30 dischargers that contribute upwards of 200-300 ft³/sec of water by the time it reaches the tidal segment.



Petronila Creek Tributary Study – Segment 2204

Since FY 2013-2014, the TCEQ has contracted with NRA to conduct monthly water quality monitoring to identify chloride, sulfate, and TDS contributions from tributaries of Petronila Creek, including drainage ditches. For FY 2020, NRA is conducting monthly monitoring at 13 sites. Four sites are located on the main stem of Petronila Creek (13096, 13095, 13094, and 13093 – data is in bold on the graph). Monitoring for December through February is summarized below. Sampling at station 21954 (pictured below) has moved about 50m upstream due to construction. (Disclaimer – Data has not been validated or input into the SWQMIS Database.)

Site #	December (µmhos)	January (µmhos)	February (µmhos)
21594	1,370	1,640	1,620
18484	24,900	19,400	24,100
13032	19,100	16,200	Dry
13096	11,800	13,800	17,700
13095	15,200	17,300	18,000
21931	Dry	55,700	Dry
13094	17,900	17,600	20,200
18642	39,700	36,800	42,000
21596	15,600	13,600	14,800
13093	16,200	10,900	19,100
13030	22,700	22,000	32,700
21929	Dry	23,400	31,500
21598	42,900	26,800	34,600



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.

New Station – Oso Bay at Ocean Drive (Segment 2485)

Nueces River Authority field staff visited a new station (Station ID 13442) on the Oso Bay Bridge on Ocean Drive between NAS-CC and TAMUCC. Bacteria levels were highly elevated on our site visit (1,730 MPN for Enterococcus) on October 8th but were down to 38 MPN on our site visit on February 18th. The standard is for Enterococcus is 35 MPN. The tide was coming in at the site visit bringing clear green water to the shallow bay system. Two people were fishing the banks.



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 January 22nd. Nitrate levels were a little high at Hidalgo Main (4.85 mg/L compared to standard of 1.1 mg/L) but bacteria levels (63.5 MPN) were below the standard (126 MPN). The Raymondville Drain had high bacteria levels (276 MPN) and slightly elevated nutrients levels (Nitrate 1.3 mg/L). (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 near Riviera. NRA field staff visited the site on February 22nd. The creek, once again, lives up to its name (Salty Lagoon) with salinity values again around the 57 PSU range (seawater is around 35 PSU). Bacteria concentrations were very high on the site visit (>2,400 MPN), same as last quarter.



New Station – 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 small boat from UTRGV to travel up the shallow waterway on February 11th just ahead of a cold front. The station was added in support of the Lower Laguna Madre/Brownsville Ship Channel Watershed Protection Plan in Cameron County that is underway. If you would learn more about the project, visit the website:

<http://www.co.cameron.tx.us/lmbssc/>



Outreach and Education

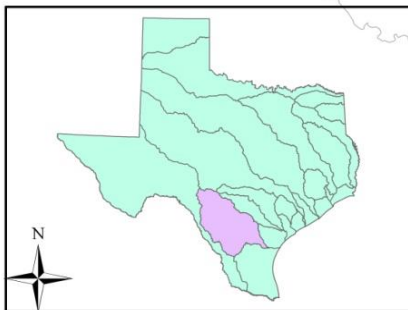
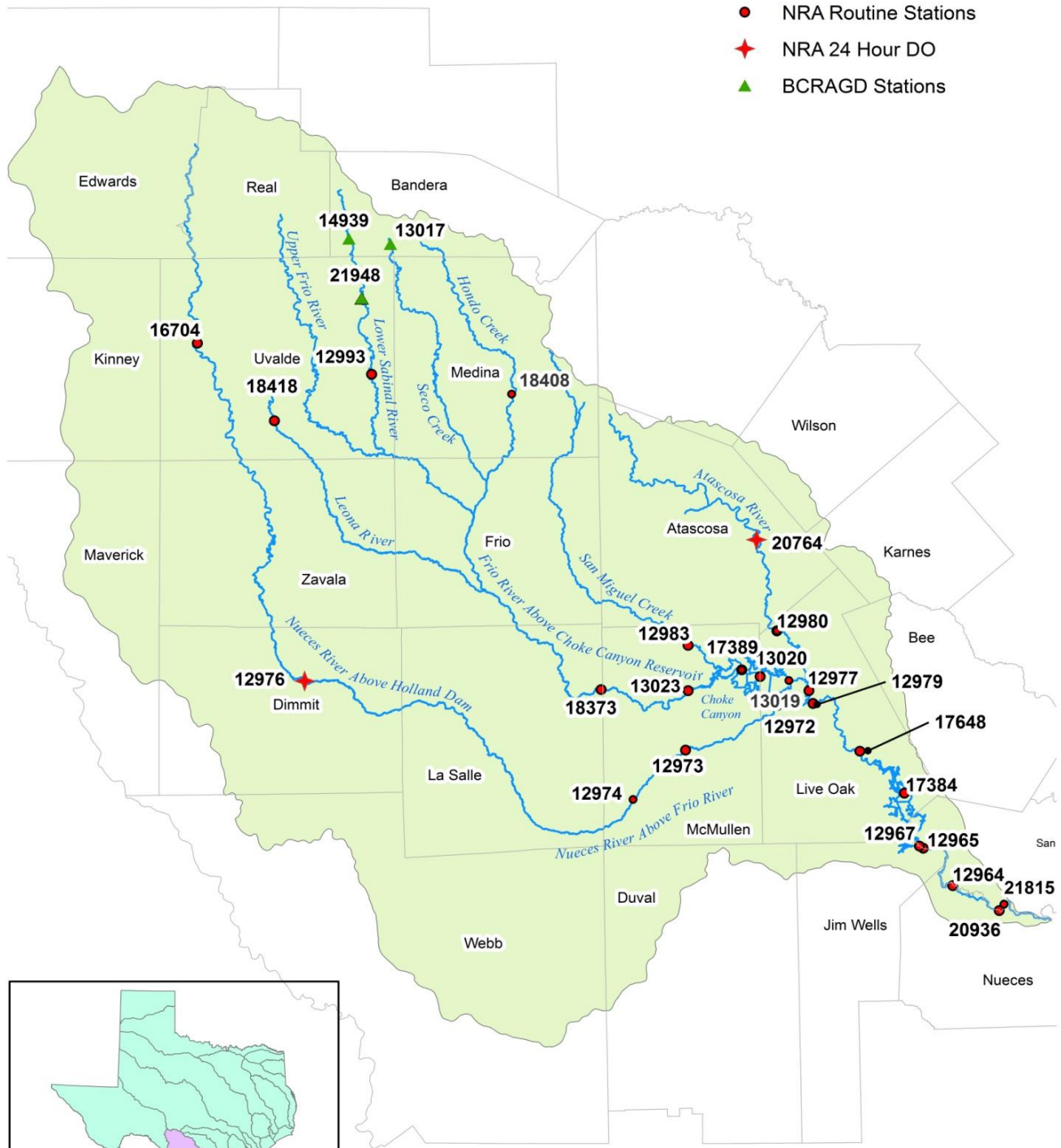
NRA's Education and Outreach Program saw 486 people in December, 1,564 people in January and 1,080 people in February for a total of 3,130 for the quarter. Thank you, Mary, Dee, and Jodi for your hard work showing off our river basin, water cycle, and rainwater catchment models. For more information about outreach and education, contact slewey@nueces-ra.org.



Nueces River Basin

NRA Monitoring Stations

- NRA Routine Stations
- ★ NRA 24 Hour DO
- ▲ BCRAGD Stations

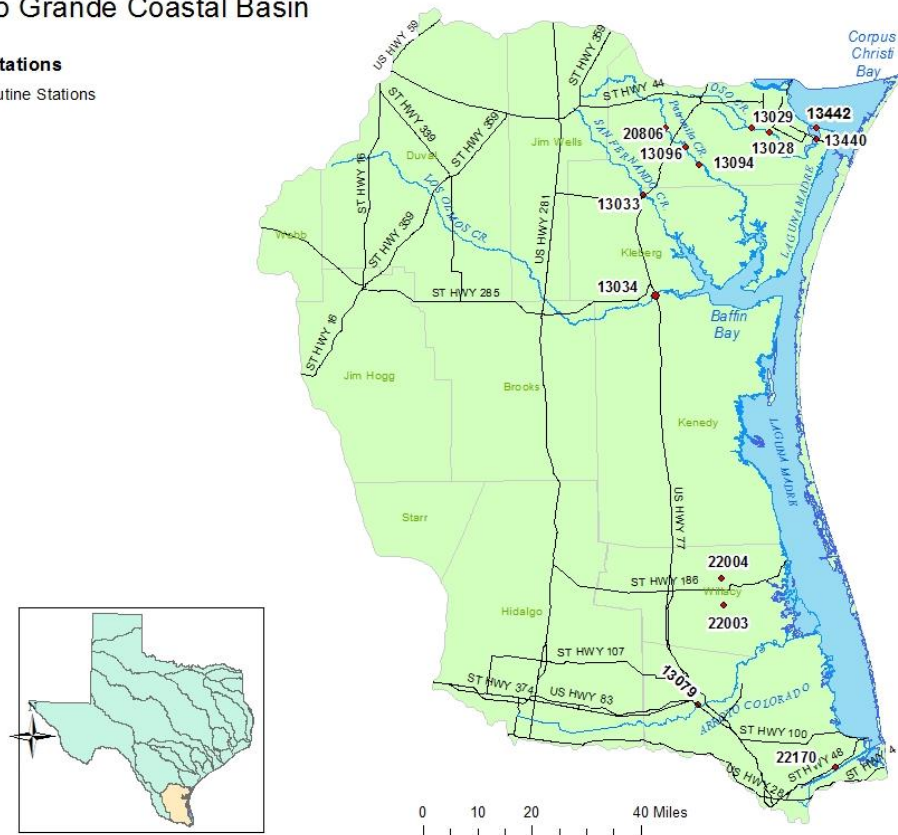


0 12.5 25 50 Miles

Nueces-Rio Grande Coastal Basin

Monitoring Stations

- NRA Routine Stations



San Antonio-Nueces Coastal Basin

- NRA Routine Stations

