

**Nueces River Authority - Clean Rivers Program
Steering Committee and Stakeholder Update #6
December 2014 - February 2015**

March 11th, 2015

Dear Steering Committee Members and Stakeholders,

This is the sixth of an ongoing series of quarterly email updates for the Nueces River Authority's FY 2014 – 2015 Clean Rivers Program. Related activities throughout the area are also discussed.

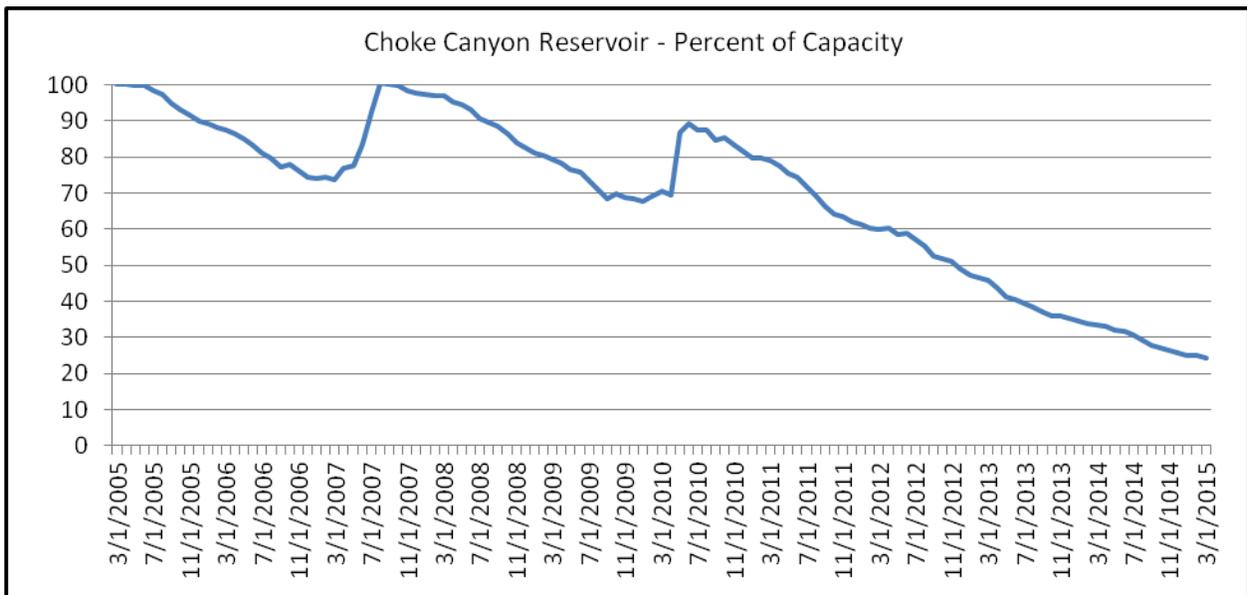
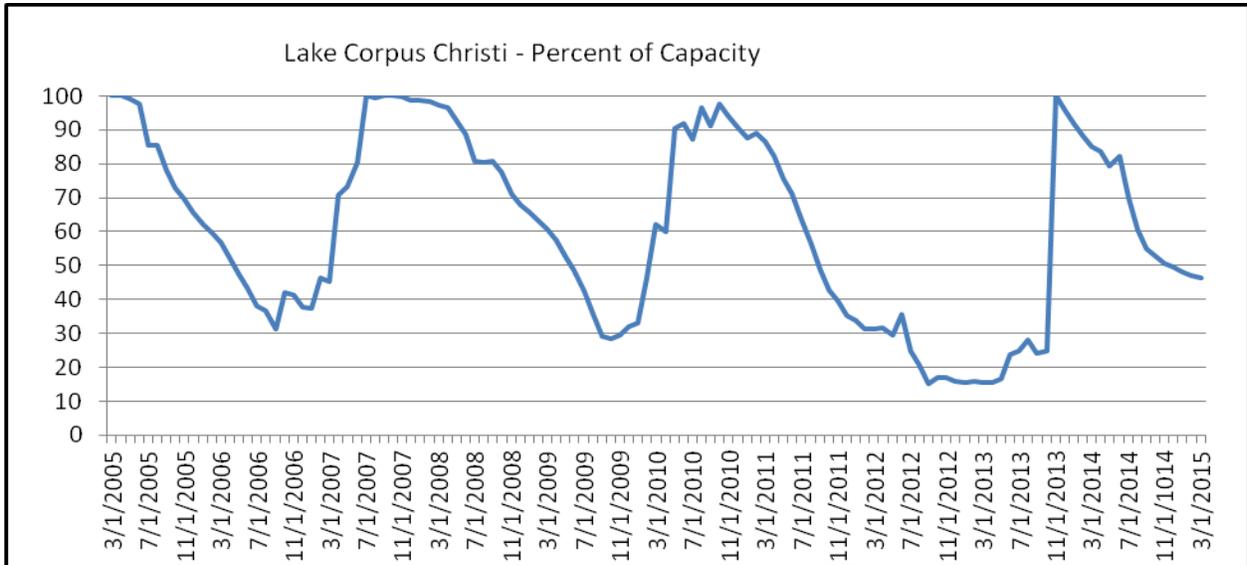
CRP Routine Monitoring

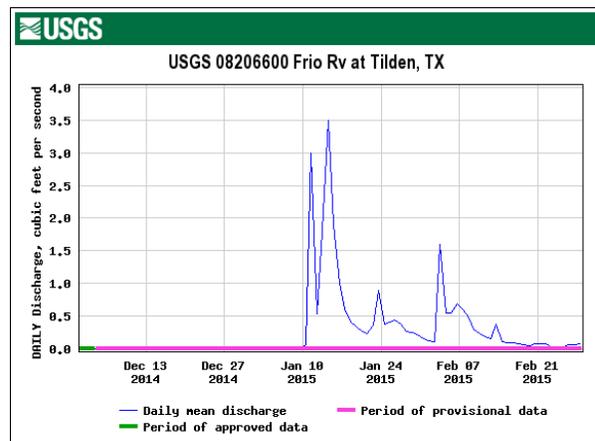
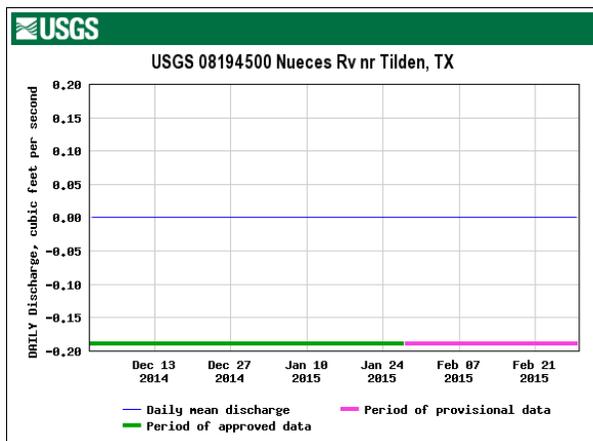
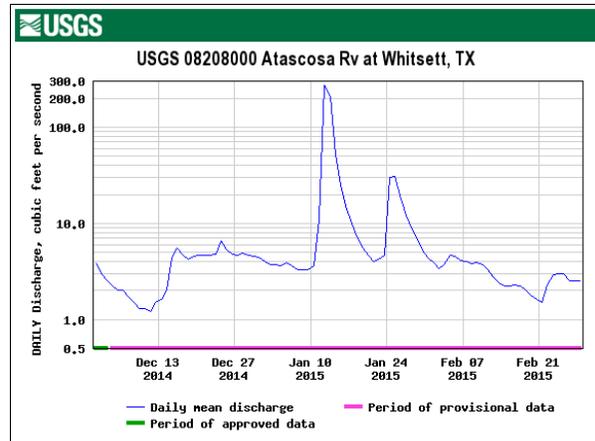
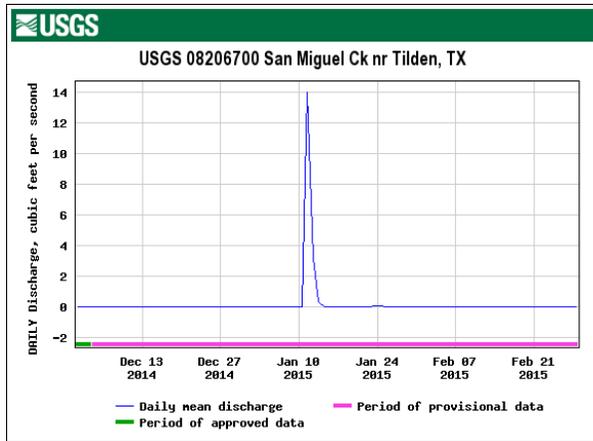
During the 6th Quarter (December 2014 through February 2015), NRA conducted routine monitoring at 38 stations; Poesta Creek in Beeville and Leona River near Uvalde were both dry. No 24 hour dissolved oxygen monitoring occurred in the quarter due to lack of streamflow. The boat ramp that NRA uses to monitor the Northern end of Lake Corpus Christi (Station ID 17384) was, once again, inoperable due to low water levels. The floating plants (duckweed and mosquito fern) that were observed last quarter were still present at the Nueces River South of Tilden (Station ID 12973) pictured below. Dissolved oxygen (DO) values at station 12973 were, again, very low at 3.1 mg/L and 28.5%.



Drought Status in the Nueces River Basin

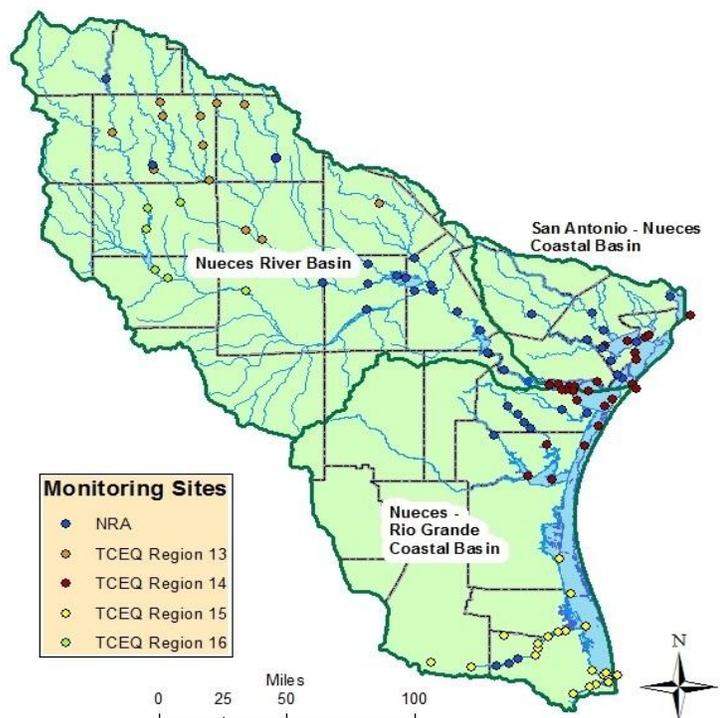
The drought in the Nueces River Basin is hitting high gear so far for 2015. The combined capacity of the Reservoir System (Choke Canyon + Lake Corpus Christi) on February 28th was 30.1% (down from 32.1% at the end of November 2014). It's been over 4 years since Choke Canyon Reservoir had a meaningful increase in stored water. Many of the tributaries that contribute water to Choke Canyon are at or near historical lows. Inflows to Choke Canyon Reservoir are highlighted below. San Miguel Creek at Highway 16 (north of Tilden) had a maximum flow of approximately 14 cubic feet per second and the Frio River at Tilden saw a maximum flow of approximately 3.5 cubic feet per second in January 2015.





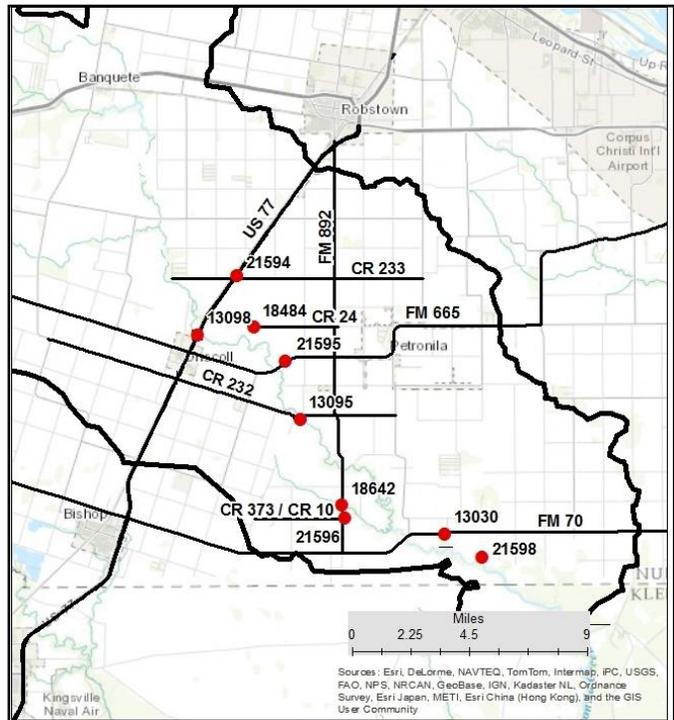
Coordinated Monitoring Meeting

The Annual Clean Rivers Program (CRP) Coordinated Monitoring Meeting will be held on April 23rd 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 projects 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.



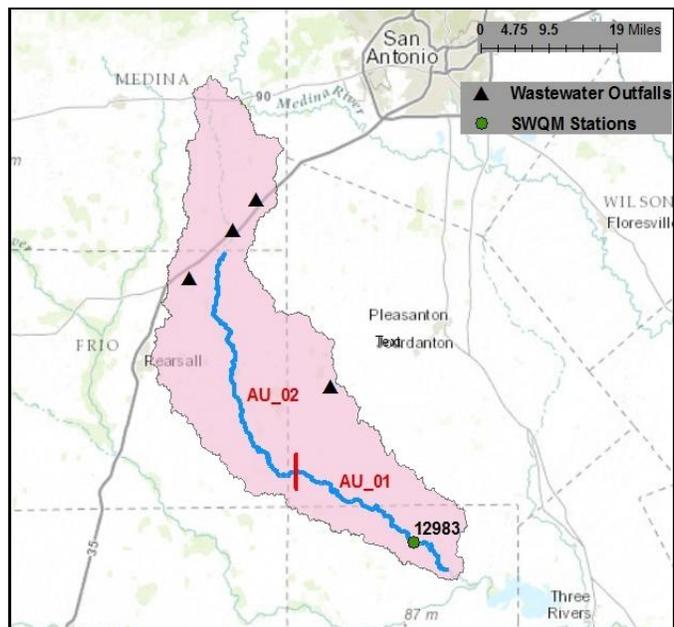
Petronila Creek Tributary Study

Petronila Creek (Segment 2204), is a stream approximately 44 miles long that flows into Alazan Bay, a small bay opening onto Baffin Bay. The creek was listed on the 2000 Texas 303(d) list of impaired water bodies for exceeding the standards for chloride (1,500 mg/l), sulfate (500 mg/l), and total dissolved solids (TDS) (4,000 mg/l). Field investigations identified that excessive chloride, sulfate, and TDS concentrations occur in the downstream section of the creek, southeast of US 77, in an area where man-made nonpoint sources such as produced water, brine pits, and brine injection wells, related to oil and gas production, are most numerous. In support of the Implementation Plan (I-Plan) for Petronila Creek, NRA began a monthly monitoring project that examines the amount of chloride, sulfate, and TDS present in surface waters of Petronila Creek and many of the tributaries that drain into it. Field and lab data collected so far indicates the contribution of salts to be a widespread occurrence downstream of US-77.



San Miguel Recreational Use Attainability Analysis

In 2006, San Miguel Creek (Segment 2108), which flows 66 miles from Choke Canyon Reservoir in McMullen County to the confluence of Perez Creek and Chacon Creek in Frio County was identified as being impaired for having *E. coli* bacteria concentrations that exceed state water quality standards. To determine if the correct standard is being applied to the water body, the Texas State Soil and Water Conservation Board (TSSWCB) contracted with NRA to conduct a Recreation Use Attainability Analysis (RUAA) to determine if recreation is occurring on the stream. The project kicked off in November 2013. Sites surveys are scheduled to take place in mid-May followed by a public meeting in late May/early June. For more information please visit the project website. <https://www.nueces-ra.org/SMC/>



Nueces River Watershed Partnership - Development of the Lower Nueces River Watershed Protection Plan

On February 9, 2015 Flying J Services out of Jourdanton, Texas flew Rocky Freund, Sky Lewey, and Tim McWha on a hyacinth survey of the Lower Nueces River. They flew the 39 river miles from Wesley E. Seale Dam at Lake Corpus Christi to the saltwater barrier dam at La Bonte Park at an altitude of about 50' above the trees at about 20 mph. McWha held a GoPro camera that was set to take a photo every two seconds. Lewey had a Sony Cyber-shot camera, taking georeferenced photos of any hyacinth that was spotted and anything else of interest.



The next step of this project will be to conduct a ground truth survey and physically measure several hyacinth colonies. These measurements will be used to approximate the size of the ~125 colonies that were photographed. A rough estimate based just on the photos is about a 1% coverage. The colonies were more numerous at and just below neighborhoods, mainly along the banks and at debris clogs, but there were no instances of the river being completely covered. A second survey will be conducted this summer to see if temperature is a major factor.

Meetings of the Nueces River Watershed Partnership will be held more frequently this spring and summer as the WPP nears completion. Meeting dates will be posted in the 'Announcements, Meetings, and Workshops' section on our homepage, <http://www.nueces-ra.org>. For more information about the Partnership and the development of the Watershed Protection Plan, visit <http://www.nuecesriverpartnership.org> or contact Rocky Freund at (361) 653-2110 or rfreund@nueces-ra.org.

Outreach and Education

NRA's Education and Outreach Program reached out to 3,176 people from September through November using custom made tools including NRA's watershed, rainwater, and groundwater models. For more information about outreach and education, contact slewey@nueces-ra.org.

Arroyo Colorado Watershed Partnership

The Arroyo Colorado Watershed Partnership hosted the Steering Committee meeting on February 19th at the Estero Llano Grande World Birding Center located at 3301 S. FM 1015. The group discussed the progress of Phase 2 of the Arroyo Colorado Watershed Protection Plan. For more information please email Jaime Flores at jjflores@ag.tamu.edu.

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