

SEP in the Nueces River Basin

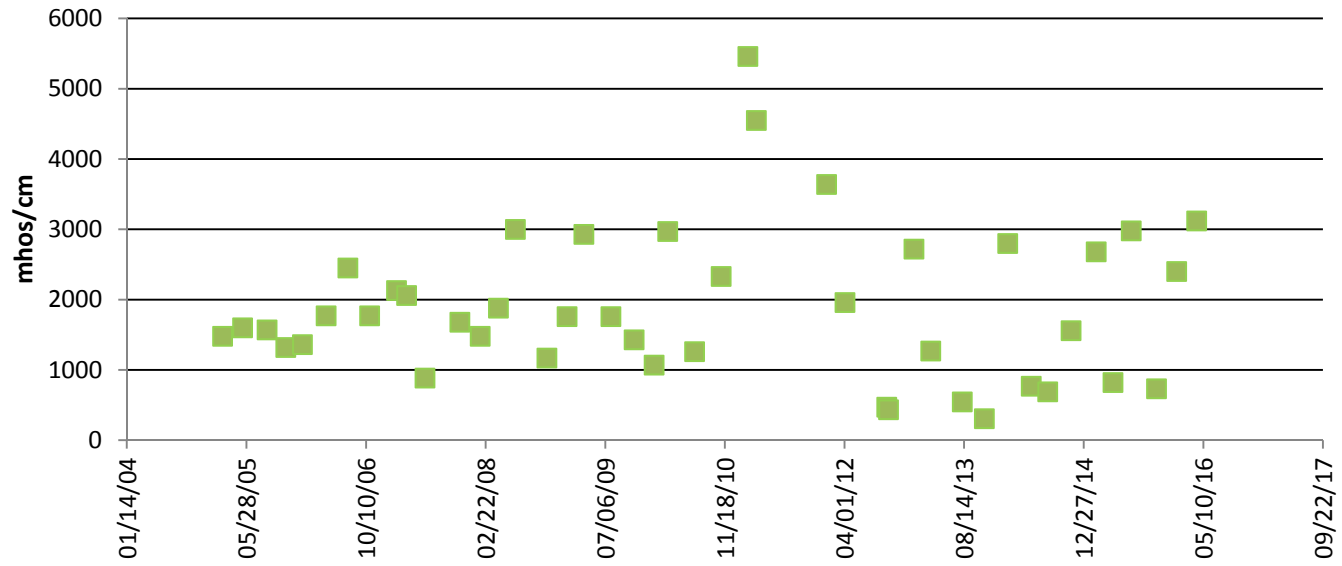
Rocky Freund

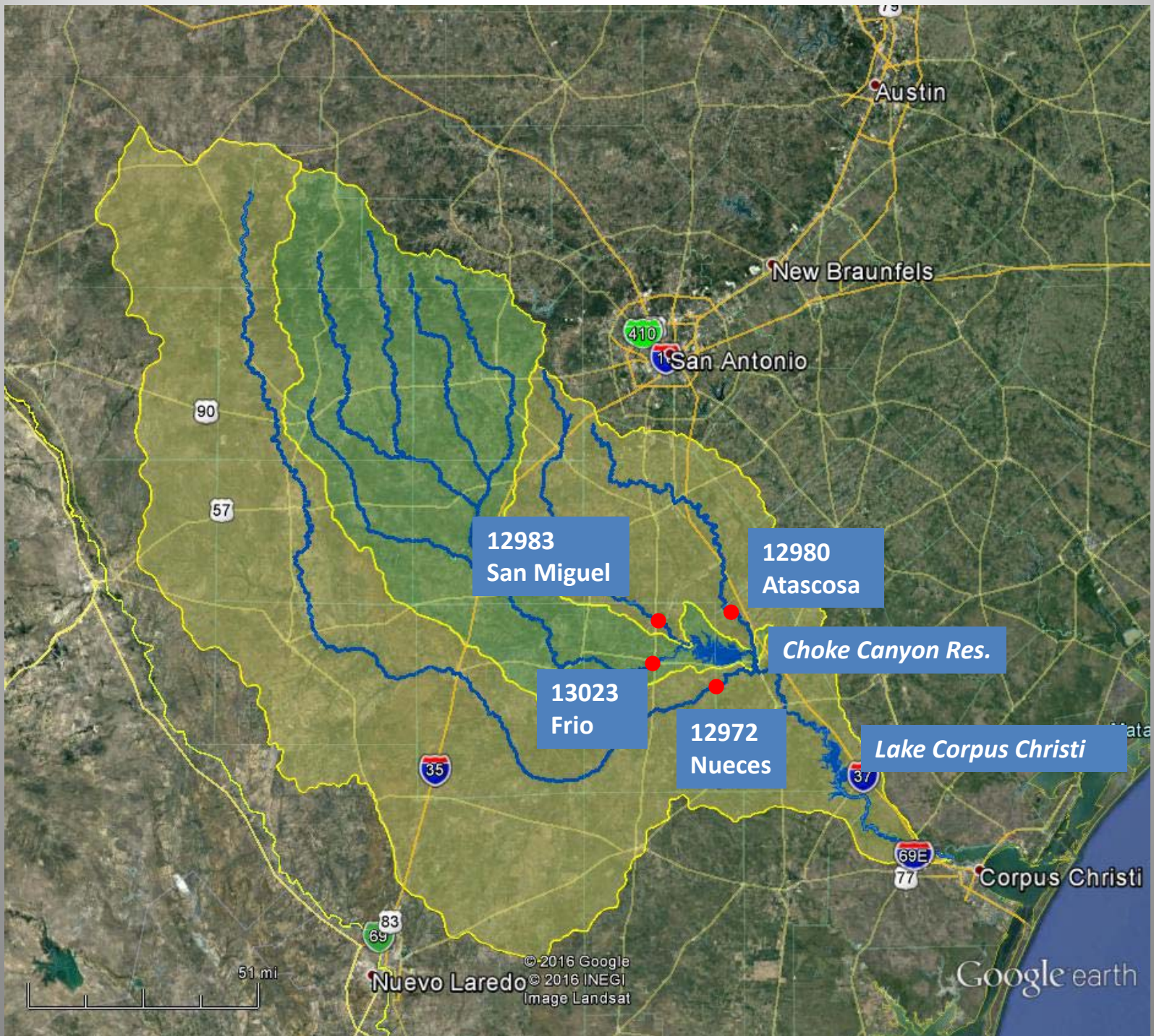
Deputy Executive Director

Nueces River Authority

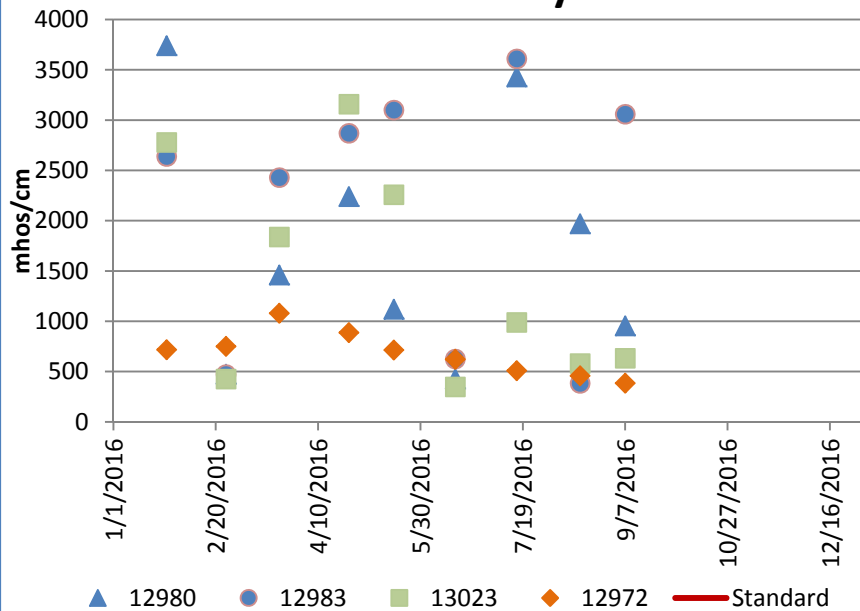


13023 Frio River at SH 16 Conductivity

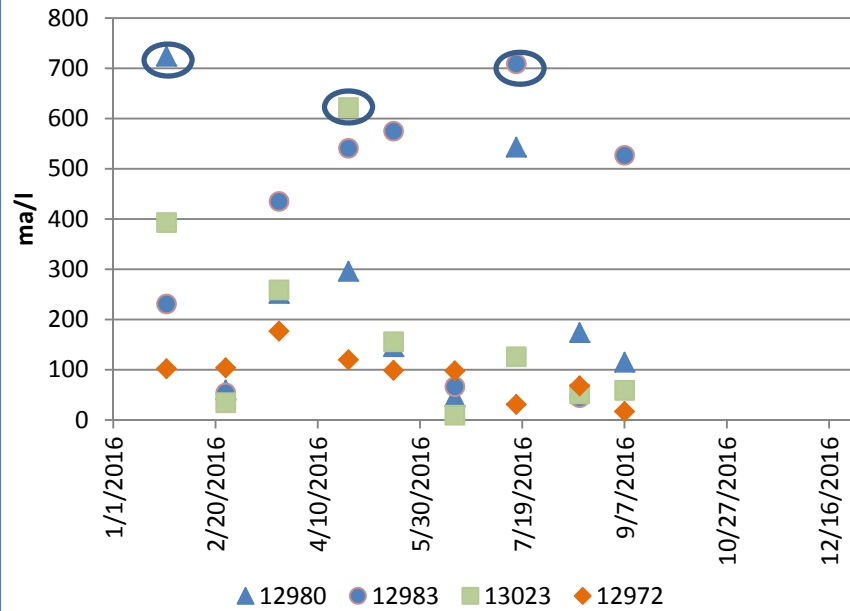




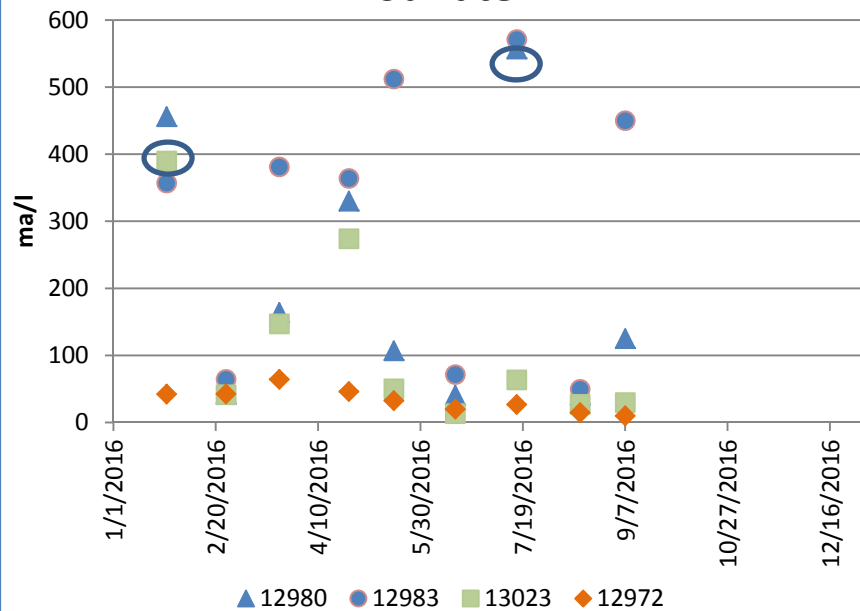
Conductivity



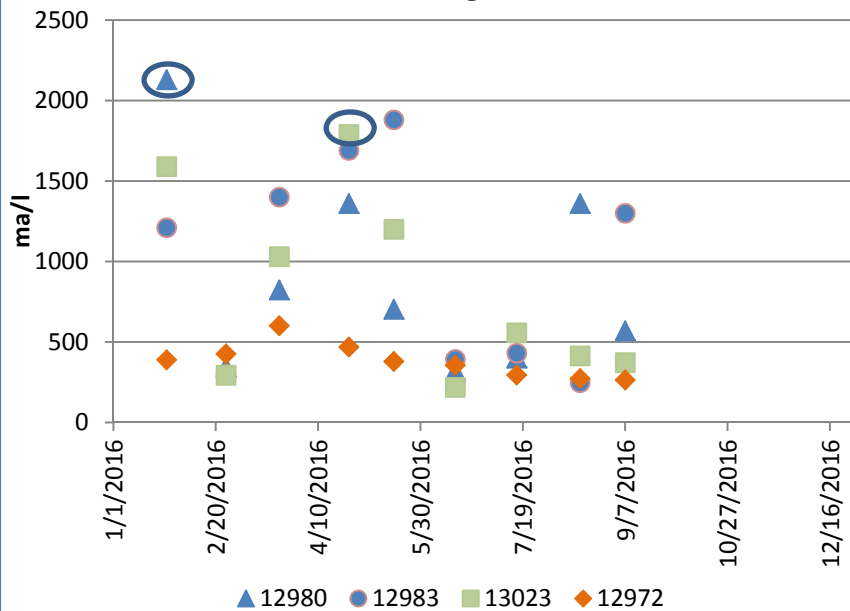
Chloride



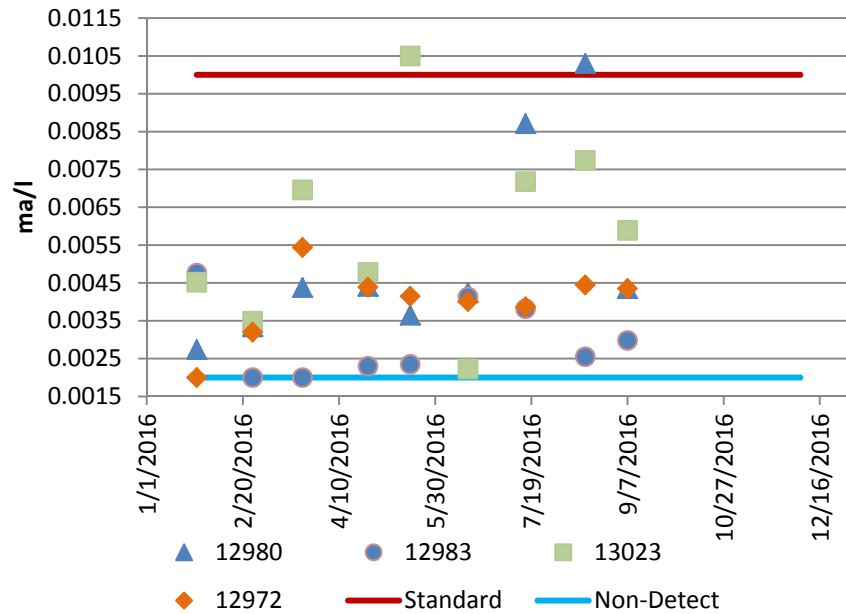
Sulfate



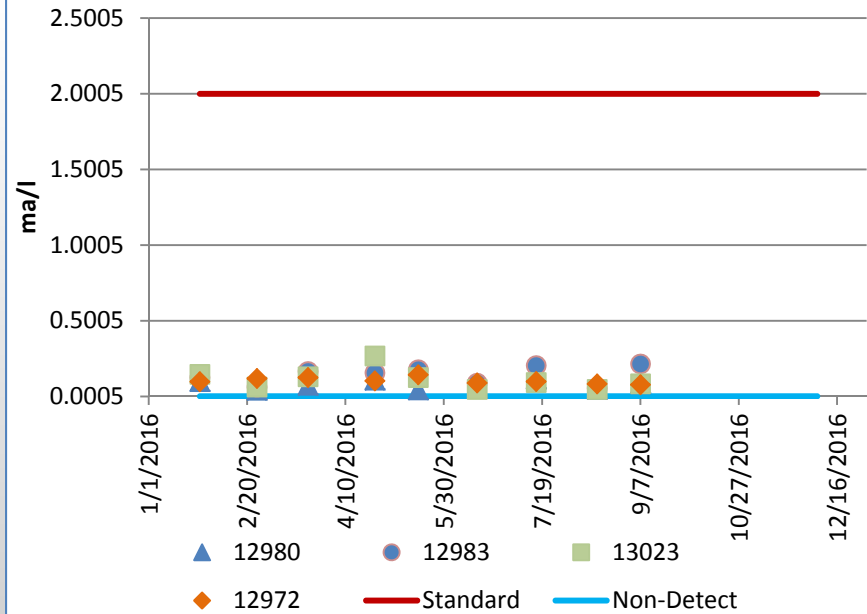
TDS



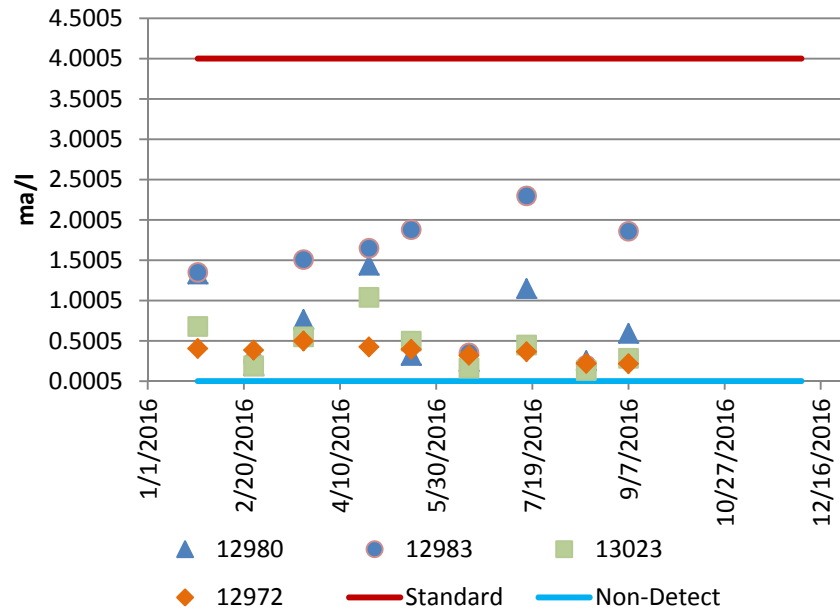
Dissolved Arsenic



Dissolved Barium



Dissolved Strontium



SEP in the Nueces River Basin

Slide 1: During routine sampling we started seeing higher than normal conductivity readings on the Frio River. The timing coincided with the beginning of the Eagle Ford Shale boom in the region.

NRA was interested in collecting additional data to see the spikes were possibly related to the O&G industry and/or illicit discharges/dumping. We wanted to have water samples analyzed for constituents that would be indicative of oil field wastewater.

Slide 2: NRA submitted a proposed SEP project in early 2012 for funding to do the additional study. The project was designed to sample at four locations, monthly for one year. The selected sites are on the four major tributaries to the Choke Canyon / Lake Corpus Christi Reservoir System – which supplies drinking water to nearly 500,000 people and also supplies water for industrial needs in the region.

NRA signed a contract with TCEQ to perform the Nueces River Basin Enhanced Water Quality Monitoring in May of 2013, more than a year after it was submitted, and the project was placed on the approved list of SEPs.

The project budget was \$13,032.

The first contribution towards the project was received in March 2015, and we finally received enough contributions totaling \$17,157 in early October 2015. We were at \$9000 and then received an \$8000 contribution.

A CRP QAPP amendment was submitted a couple weeks later and final approval on that was received mid-December.

So we actually started monthly sampling in January 2016 (almost 4 years from the initial project submittal) and will continue through December 2016. Samples are tested for chloride, sulfate, TDS, dissolved arsenic, dissolved barium, and dissolved strontium.

Slide 3: Here are our results to date. The chloride standards range from 600 to 700, sulfate from 300 to 700, and TDS from 1500 to 2000. I circled the points that exceeded the standard. After we complete the sampling, we'll submit the data for inclusion in SQMIS.

A second part to this is the accounting process, which has been a learning process – and I appreciated TCEQ's patience with me. NRA works on an accrual basis and primarily with reimbursable contracts. We created a bank account solely for this fund (TCEQ requirement) and we reimburse ourselves from it on the 1st of each month to cover all expenses for the previous month, but because financial reports have to match the bank statement, everything is a month off.

For example, in the April – June report, the last one submitted, includes what we reimbursed ourselves on April 1, May 1, and June 1, for March, April, and May, respectively.

Take aways

- This is a great program and source of funding for non-time sensitive projects.

However...

- Difficult to plan company/department yearly budgets when you have to wait on contributions to begin the project.
- Cost estimates associated with lab analysis, personnel, and travel are likely to change between the time the project budget is submitted until work can begin.