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## LBG-GUYTON ASSOCIATES

### PROGRESS REPORT

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**DATE:** August 11, 2016  
**TO:** Jean Perez, Hydrologist II, Conservation & Innovative Water Technologies  
**FROM:** Michael Keester, P.G. and James Beach, P.G.  
**SUBJECT:** TWDB Contract No. 1600011952  
Nacatoch Aquifer – Potential Brackish Groundwater Production Areas

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### **Work Completed**

The time period covered by this progress report is from July 1, 2016 through the end of the month, (July 31, 2016).

#### TASK 1 PROJECT MANAGEMENT

LBG-Guyton coordinated work with Collier Consulting.

#### TASK 2 DATA ACQUISITION

- Obtaining, reviewing, and sharing the USGS produced water database
- Obtaining, reviewing, and sharing the USGS NWIS database
- Created water quality data tables in preparation for building a master table resembling the tblBracsWaterQuality structure for future input
- Collected non-GAM groundwater publications in the study area to inspect for water chemistry data not included in the TWDB databases
- Received scanned files for 37 PWS source-water wells from TCEQ. These were selected to avoid duplication of PWS wells already in the TWDB Groundwater database and should provide new data. We are in the process of reviewing/entering the sample analysis data.

#### TASK 3 HYDROGEOLOGIC EVALUATION

- Began evaluation of anion-cation balances for samples in TWDB GWDB
- Found that USGS NWIS database contains no entries for the Nacatoch aquifer in Texas
- USGS Produced Water database contains 3 Nacatoch analyses
- Reviewing publications for data not in the TWDB Groundwater database. Publications examined to date are: TWDB R150, TWDB R160, TWDB R269, and USGS WSP 1365. The latter contains Nacatoch analyses but without well location, depth, or construction information. R269 contains 1 Nacatoch sample that does not appear to be in the database.