



Memorandum

To: TWDB Groundwater Availability Modeling Program Stakeholders
From: Michael Keester, PG – Technical Project Manager
Date: October 1, 2020
Project: Development of Pumping Volumes, Locations, and Aquifers for Selected Study Areas
Subject: TWDB Historical Groundwater Pumping Estimation Project Description and Data Request

The Texas Water Development Board (TWDB) is tasked with developing numerical groundwater flow models (Groundwater Availability Models [GAMs]) of the major and minor aquifers in Texas. An important component of any GAM is the estimated historical pumping input into the model. TWDB has contracted with LRE Water, WSP, Thornhill Group, and Michelle Sutherland to improve the current estimated historical pumping rates both spatially and temporally for the defined region of interest (ROI). The defined ROI for this project covers the following state-defined aquifers shown on Figure 1: Pecos Valley, Edwards-Trinity (Plateau), Trinity (Hill Country), Edwards (Balcones Fault Zone) located south of the Colorado River, and the Lipan.

Currently, the TWDB Water Use Survey Program (WUSP) gathers pumping data (where reported) and provides broad estimates of groundwater use on a regional (county, basin) scale (where pumping data are not reported/available). The pumping estimates provided by the WUSP are further used as one source of pumping input for the GAMs. However, past and recent WUSP pumping estimates were obtained using transient and undocumented processes, especially those used to assign aquifers for various water use categories such as livestock, mining, rural domestic, and irrigation. Due to the non-reporting entities, there are additional data gaps that need to be addressed.

One goal of this study is to develop a well-documented and consistent process for evaluating the TWDB Water Use Survey, from at least 1984 to 2018, to identify and flag counties and/or uses that may have missing data or inconsistencies. If applicable, the developed process will identify alternative publicly available data sources beyond the TWDB Water Use Survey. Based on the data evaluation, we will assist the TWDB in developing a plan to construct a detailed and documented pumpage dataset for the aquifers in the study area. Lastly, the data and processes developed during the study will be used within the GAM Program.

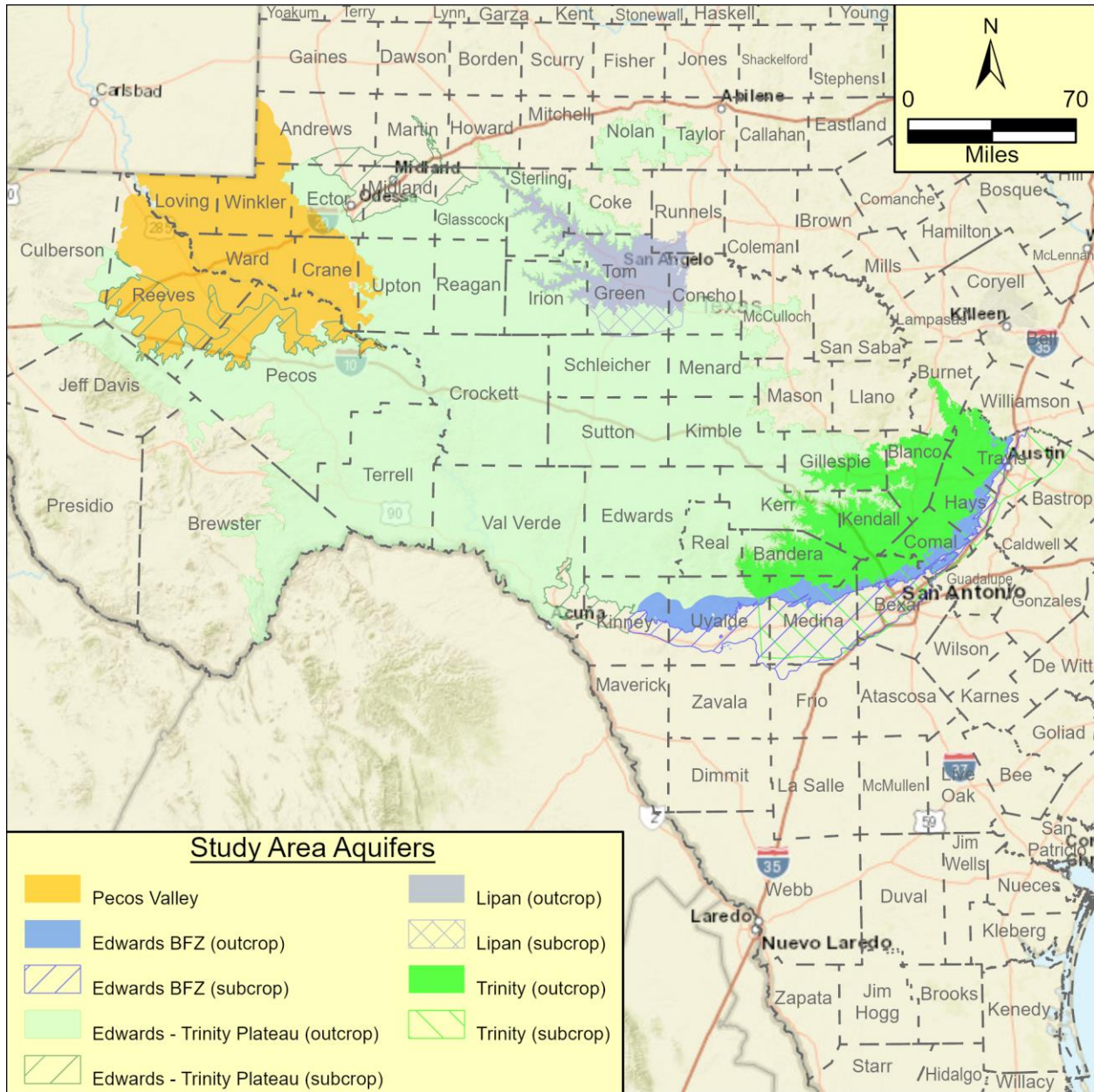


Figure 1. Study area aquifers.

On September 23, 2020, Mr. Brad Cross with WSP began reaching out to groundwater conservation districts, regional water planning groups, and major municipal groundwater users to help us identify and obtain publicly available data sets, and/or data sets that may become publicly available, that may not have previously been shared with the TWDB so that we can evaluate their usefulness in evaluating the Water Use Survey data and in refining the pumping estimates. With this memorandum, we are reaching out to other stakeholders that may be able to provide similar groundwater pumping data. Please provide any documents containing information related to pumping that have not previously been made public. These documents may include pumping records or estimates, historic well screen/completion records, local water use surveys, etc. previously not in the public sphere. As noted above, only the Pecos Valley, Lipan, Edwards-Trinity (Plateau), Trinity (Hill Country), and Edwards (BFZ) [south of the Colorado River] aquifers are involved in this survey (see Figure 1).

Your cooperation and response are crucial to assisting the State in developing acceptable GAMs, estimating current and future groundwater availability, and providing ongoing funding opportunities to help ensure Texas communities and citizens have adequate water supplies.

In order to meet the TWDB deadline for compilation of this data, we ask that you provide any information or data on or before October 30, 2020. Data may be provided via email or other digital transfer method to myself at mike.keester@lrewater.com or to Mr. Brad Cross with WSP at brad.cross@wsp.com.

Your participation and timely response are greatly appreciated. If you have any questions, please contact me at (512) 962-7660 or mike.keester@lrewater.com.