

MEMO

To: Greg Smith, City Manager
Robert Heinemeyer, Director of Public Works

From: Herbert S. Smith, P.E.

RE: TCEQ - Notice of Violation for Compliance, TCEQ Investigation # 724200
City of Angleton, Public Water Supply System

Greg and Robert:

Robert has asked me to prepare the response to this Notice of Violation. The letter from TCEQ contained ten violations, alleged violations and areas of concern, the majority of which have been addressed or are in the process of being addressed by the Utility Department. One item needs your attention and Council's approval before we can present it to TCEQ in the City response. This response is due to TCEQ on 15 November 2009.

Violation Track # 360836 concerns 30 TAC Chapter 290.45(b)(1)(D)(i) in which the City:

Failed to meet the Agency's "Minimum Water System Capacity". The City has too little water supply for the number of connections in the system. The violation is a direct result of the 2009 inspection in which TCEQ, for the first time, classified each apartment unit as a connection. Previously, each apartment complex was counted as one connection, without regard to the number of units in the complex.

Using the new definition of connection, the City's system as 8,270 connections. TCEQ regulation cited above requires the total water supply (wells and BWA) to equal 0.6 gpm per connection or 4,962 gpm. The City currently purchases 1,250 gpm (1.8 million gallons per day) from BWA and has well capacity of 2,220 gpm for a total production of 3,470 gpm. This is a shortage of 1,492 gpm.

TCEQ requires us to respond with a compliance plan and engineering report, or a copy of a letter to the Public Drinking Water Section of TCEQ requesting an exception in addition to a compliance plan. The "exception" might be a request to reduce the total amount of production increase we must provide due to the amount of storage in system.

To come into compliance, we will need two additional water wells, each would produce between 900 gpm and 1100 gpm based on the past experience with wells in our area. If we have two wells, each with 900 gpm (1,800 gpm total) we would have a total production of 5,270 gpm

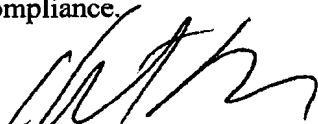
which will support 8,783 connections or 513 connections more than current. We would need to address in the compliance report when we would plan on drilling a third well, as we anticipate that Banfield Apartments will go into construction this spring with between 200 and 250 connections.

I have attached a cost estimate using \$1,000 / well gpm, which is the budget the City of Lake Jackson is using, and very close to the estimate I received from two area drillers. Other issues which will need to be funded include either raw water lines to the Henderson Road Water Plant from the well, or perhaps a small pumping station at each well, with storage and disinfection. These issues, as well as siting of the wells, real estate acquisition and protective easements all will need to be addressed during design.

I have also attached a generic project development schedule for your review. Considerable time is required both to find locations, acquire the location, analyze whether raw water should be treated on site or sent to one of the City pumping plants and then submit to TCEQ for permitting. Well construction cannot begin until the complete plans have received approval from TCEQ. A recent well project for a church took approximately six months for review.

Robert and I need guidance on the response we are to make to TCEQ on or before the 15th of November. We will need to determine if we want to agree to provide 2 wells, or to argue that one well is adequate for our current operations (I do not believe that TCEQ will allow us to avoid adding any production at all as our current production of 3,470 gpm is only 0.42 gpm per connection or 70% of the required minimum of 0.6 gpm). After a determination of the amount of additional production we will petition for approval, we will need to revise the generic schedule to a calendar schedule, which requires Council to give us the start day that the design/real estate acquisition process will start.

We are working with another community that has a violation (in their case storage volume) and TCEQ has forbidden them to make further connections to the system until they are in compliance.


Herbert S. Smith, P.E.

Water Supply Status

Cost for (2) 900 gpm gravel pack well

Item	Unit	Quantity	Unit Price	Extension
Well	Each	2	\$900,000	\$1,800,000
Raw Water Line (1.5 miles estimated length)	LF	7920	\$55	\$435,600
Miscellaneous Valving, Fittings etc	LS	2	\$75,000	\$150,000
Subtotal				\$2,385,600
Contingencies (20%)				\$477,120
Subtotal				\$2,862,720
Surveys, Engineering, TCEQ Permit, Construction Permit				\$486,662
Allowance for Easement Acquisition				\$100,000
TOTAL				\$3,449,382

#10405

