

July 26, 2011

Amy Sittemeyer
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PO Box 13087
Austin, TX 78711-3087

Reference: Edwards Aquifer Protection Program

Dear Ms. Sittemeyer,

Please submit the following comments and questions concerning the draft complying with the Edwards Aquifer Rules Technical Guidance on Best Management Practices for quarry operations. The creation of a draft Best Management Practices (BMP) for aggregate quarries is long overdue. Soliciting public input to this document is appreciated by those of us who are interested in preventing pollution of Texas water supply during aggregate quarrying.

Before I begin, I would like to state one criticism. I attended TCEQ's meeting in Austin on July 13th, 2011. At that time, I made comments and posed questions during the initial informal discussion period, but I was unable to remain for the subsequent formal comment period as I had to return to the Texas Silver-Haired Legislature meeting as chairman of the Utilities and Natural Resources Committee. I had no prior knowledge of the following statement on the agenda, "Questions and/or comments made during the informal period will not be considered as formal comments." No such statement was made public in any of the notices I received. Please note my displeasure of TCEQ's policy of not considering public comments and questions unless they are submitted during the formal comment/question period when the public has been invited to submit them.

In view of the above, I am submitting the following written comments and questions as formal comments which I believe TCEQ should add as requirements to the proposed Quarry BMP Guidance Manual if aquifer pollution is to be prevented.

Concerning *General Guidelines 2.1 Separation from Groundwater on the recharge zone*. Allowing aggregate mining to an estimated depth of only twenty-five feet over the Edwards Aquifer Recharge Zone is an unsafe practice. This proposed 25 foot roof over the underlying aquifer is significantly weaker and made more permeable for easier contamination. Mining depth should be raised to at least fifty feet over the Edwards Aquifer in order to avoid pollution. Edwards Aquifer pollution can potentially occur at any time during the operation of a quarry, as well as at any given time after the quarry pit site is abandoned. The use of a well for mining depth information in the quarry pit area can be unreliable and inaccurate for obvious reasons, even to a layman who possesses only basic knowledge concerning a karst aquifer whose upper limits are not determined by a level plane. In the current draft document, determining where the placement of a well should be in relation to the quarry pit is not defined. Aggregate quarries can be very large. For example, two quarries in Medina County are proposed to be one mile wide and

three miles in length. If wells are to be used to accurately determine the safe depth of quarrying, they must be in close proximity to the active mining area. In large quarries, it may be necessary to have multiple monitoring wells to accurately determine the safe depth of mining permitted. Data obtained from these wells should be monitored closely to determine the water level in order to ensure that pollution of the aquifer does not occur due to excessive removal of limestone, especially after periods of heavy rainfall over the underlying quarry pit.

2.2.3 Sensitive features identified in geologic assessment. Currently, TCEQ permits the practice of allowing residue derived from settling ponds during the aggregate processing and allowing this material to be returned to the quarry pit, where it is dumped. This practice should be prohibited for good reasons. To begin with, no analysis of this material is currently required, yet it contains potential pollutants including surfactants. Allowing this material to be placed back into the recharge zone, where it can leach back into the aquifer ultimately not only exposes the quarrying site to pollution, but also creates an impervious cover for the floor of the quarry pit. If TCEQ allows the continued disposal of this grout-like material to be dumped into the quarrying pit, the aggregate company should be required to provide an alternative to make up for the loss of recharge to the aquifer, as is noted when it is determined that a sensitive feature must be sealed. (Page 6, Paragraph 2) Some type of mitigation should be required for destroying part of the recharge zone.

Following are additional suggestions for improving TCEQ's manual for requirements for mining over the EARZ.

Currently, TCEQ has no requirement to make a site inspection for a proposed aggregate quarry. All TCEQ requires is an air permit and a WPAP; the latter may be presented to TCEQ 48 hours prior to beginning a quarry operation. Clearly, this does not allow enough time for an adequate evaluation of the WPAP by TCEQ personnel. The aggregate company by this time has spent time and money on this project and expects TCEQ to accept the WPAP, the SPP and a storm water plan on a location that TCEQ personnel have not visited and only have a paper plan signed by a licensed engineer, hired by the aggregate company, which meets TCEQ's current requirements. In my opinion, it would be a better plan to have TCEQ be notified of a proposed quarry site and have TCEQ personnel inspect the site before proceeding with developing the quarry. In this way, TCEQ can evaluate the proposed quarry site and make appropriate suggestions before the quarry is actually developed.

Also, in my opinion, a glaring omission exists in this document. There is no mention of how to prevent pollution in quarries that are serviced by a railroad. Because of high diesel fuel prices, more and more quarries, particularly larger ones, are utilizing or plan to utilize this form of vehicle to transport aggregate to distant locations. For example, two proposed 1700-plus acre quarries in Medina County, located over the EARZ, plan to utilize railroads to transport aggregate [an estimated 200 million tons] to the Texas Gulf Coast over a period of fifty years. The presence of railroads in aggregate quarry plant sites poses additional pollution hazards that have not been addressed in this draft manual. As examples, creosote railroad cross-ties should not be allowed over the EARZ, and fueling operations for diesel locomotives should be prohibited over the recharge zone or contributing zone. If TCEQ is serious about preventing pollution, this manual must include other requirements for BMP for the WPAP and SPP,

requirements that will deal with potential pollution with railroads and quarries. A derailment of a mile-long train within a quarry's rail loop over the EARZ, particularly in the plant site in a hazardous location, such as one that is eighty percent surrounded by floodplains, can cause serious environmental hazards to the Edwards Aquifer. Such a scenario is not currently addressed in the manual. Certainly, some additional requirements are needed for quarries over the EARZ that are serviced by railroads. TCEQ must provide guidance for this situation.

Furthermore, the technical guidance on BMP for quarrying operations should not solely apply to the EARZ, but should be utilized in other karst aquifers, particularly in areas where both the contributing zone and recharge zone of the Edwards Aquifer overlaps the recharge zone of other aquifers. It does not seem to be prudent that this manual should apply only to the Edwards Aquifer.

Additionally, TCEQ should provide for more public participation by providing for public meetings, public hearings and contested case hearings for the water pollution abatement. This could be achieved by changing the WPAP to a Water Pollution Abatement *Permit*. Current public input concerning the WPAP can be ignored by TCEQ because there is no requirement for TCEQ to respond to public input, should it be given concerning a particular WPAP. This is an example of TCEQ's creation of an unequal playing field between the public and the aggregate industry.

In closing, I believe the majority of the draft manual addresses the management of environmental hazards of quarrying over the Edwards Aquifer adequately. However, pollution of the Edwards Aquifer or other karst aquifers can still occur if aggregate companies are not closely monitored on a regular basis. Violators should be subjected to substantial, strictly enforced fines and cleanup costs.

Respectfully submitted

Dr. Robert Fitzgerald

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