Greater Edwards Aquifer Alliance

Member Organizations

Alamo, Austin, and Lone Star chapters of the Sierra Club
Bexar Audubon Society
Austin, Bexar and Travis Green Parties
Bexar Grotto
Boerne Together
Bulverde Neighborhood Alliance
Bulverde Neighbors for Clean Water
Cibolo Nature Center
Citizens for the Protection of Cibolo Creek
Comal County Conservation Alliance
Environment Texas
First Universalist Unitarian Church of San Antonio
Friends of Canyon Lake
Friends of Dry Comal Creek
Friends of Government Canyon
Fuerza Unida
Green Society of UTSA
Guadalupe River Road Alliance
Guardians of Lick Creek
Headwaters at Incarnate Word
Helotes Heritage Association
Hill Country Planning Association
Kendall County Well Owners Association
Kinney County Ground Zero
Leon Springs Business Association
Medina County Environmental Action
Native Plant Society of Texas – SA
Northwest Interstate Coalition of Neighborhoods
Preserve Castroville
Preserve Lake Dunlop Association
Preserve Our Hill Country Environment
San Antonio Audubon Society
San Antonio Conservation Society
San Geronimo Valley Alliance
San Marcos Greenbelt Alliance
San Marcos River Foundation
Save Barton Creek Association
Save Our Springs Alliance
Scenic Loop/Boerne Stage Alliance
Securing a Future Environment
SEED Coalition
Solar San Antonio
Sisters of the Divine Providence
Texas Cave Management Association
Trinity Edwards Spring Protection Association
Water Aid – Texas State University
Wildlife Rescue & Rehabilitation
Wimberley Valley Watershed Association

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October 29, 2020

Representative Terry Wilson
Texas House Interim Committee on Aggregate Production Operations
Submitted via email to jeff.frazier_hc@house.texas.gov

Re: Comments and Recommendations on Aggregate Production Operations

Dear Representative Wilson and Committee Members:

These comments are submitted on behalf the fifty-two member organizations of the Greater Edwards Aquifer Alliance, all of which are united behind a comprehensive plan to protect the Edwards Aquifer, its springs and watersheds, and the Texas Hill Country. The memberships of these organizations represent a large segment of the population that relies on the Edwards Aquifer for their potable water supply, and a broad consensus on how to best protect the aquifer. We have been engaged in issues regarding impacts of aggregate operations since 2004. The following comments reflect a consensus on improvements recommended to better protect our surface and groundwater supplies, and the health, safety and quality of life of the citizens of Central Texas.

Recommended for regulation of aggregate production operations (APOs) located over the Edwards Aquifer:

The creation of a draft Best Management Practices (BMP) for aggregate production operations (APO's) impacting the Edwards Aquifer is long overdue. Soliciting public input is appreciated by those of us who are interested in preventing pollution of the Edwards Aquifer from APO's.

TCEQ should also consider incorporating Edwards-specific rules for quarries and rock crushers in the Recharge and Contributing Zones. Where these facilities are located in Edwards Limestone, the underlying aquifer is particularly vulnerable to contamination, whether or not the quarry actually excavates to below the aquifer water level. Without more stringent TCEQ regulations, quarries and rock crushers threaten to degrade the Aquifer and damage the health and water supply of adjacent communities.

TCEQ should provide additional venues for public participation in considering APO's on the Edwards Aquifer Recharge Zone (EARZ) by providing for public meetings, public hearings and contested case hearing process for water pollution abatement. This could be achieved by changing the Water Pollution Abatement Plan (WPAP) to a Water Pollution Abatement Permit. Since APO's are only required to go through the permit application process for air quality, the public is deprived of the opportunity to pursue concerns regarding vital groundwater resources.

Allowing aggregate mining to an estimated depth of only twenty-five feet over the Edwards Aquifer Recharge Zone is an unsafe practice. 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. Currently, 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 were 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.

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 on the EARZ. 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, not only exposes the Aquifer 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.

A major problem with the present regulations is that there is no requirement for any land reclamation and/or revegetation upon quarry abandonment. There is also no provision for maintenance of any berms or other pollution controls that were installed by the quarry operator.

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 of the Edwards Aquifer overlaps the recharge zone of other aquifers. Given that recent studies identify communication between the Trinity and the Edwards karst aquifer systems, it does not seem to be prudent that this manual should apply only to the Edwards Aquifer.

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.

The TCEQ (January 2012) guidance document *RG-500, Best Management Practices for Quarry Operations – Complying with the Edwards Aquifer Rule* should be used to determine the appropriate bottom elevation of the quarry to minimize impact to the Edwards Aquifer. In this document, Section 2.1 requires a “High water levels for purposes of setting quarry bottom elevation and that the water level in a 12-month period with rainfall total at or above 90th percentile.” Section 2.1 defines how to calculate the separation from Groundwater in the Recharge Zone. In addition, there needs to be a 25-foot buffer from the quarry bottom to the top of the groundwater table. RG-500 indicates how to calculate the actual permitted quarry bottom.

In reviewing the plans for expansion of four quarries, it was found that each of the engineering firms had miscalculated the proper quarry bottom per the guidelines. In some cases, by more than 100 feet. In some cases, it appears that the quarry bottom for the expansion was taken from the existing permit which was

originally in error. The following permits should be reopened and reissued with proper elevations that are protective of the Edwards Aquifer.

Dalrymple Gravel and Contracting Company, Inc.
Highway 173N
Hondo, Texas 78861
Regulated Entity No. New, no number provided.
Engineering firm submitting the permit is Westward Environmental, Engineering, and Natural Resource
Curt Campbell, PE. LN 106851
WPAP 13001184
Initial proposed quarry bottom was 810 ft msl.
Calculations from well data indicate the quarry bottom elevation should be 925 ft msl (including a 25- foot buffer from the highest expected groundwater elevation to account for quarry blasting.
The permitted quarry bottom should be elevated by 115 feet.

Medina Aggregates 711 Quarry
Medina County, Texas
Regulated Entity No. not provided.
Forster Engineering
Ralph Voss, Jr. PE 88675
Insufficient data was provided by the engineering firm to evaluate the bottom quarry elevation in the permit.
This permit should be rejected.

Martin Marietta
Water Pollution Prevention Plan (WPAP 1038H-20)
Rio Medina Quarry, Medina County, Texas
Regulated Entity No.: 192769940
Forster Engineering
Ralph Voss, Jr. PE 88675
Insufficient data was provided by the engineering firm to determine the bottom quarry elevation in the permit.
Permit should be rejected.

Vulcan Materials Medina Quarry
WPAP
Regulated Entity 1049421630
Pape Dawson Engineers
Thomas Matthew Carter PE 79272
Proposed bottom of quarry is 761.8 ft-msl
Calculated elevation should be at least 794.4 ft msl

Thank you for the opportunity to submit these comments.

Respectfully,

Annalisa Peace
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