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 Center for Conservation
Citizens for the Protection of Cibolo Creek
Comal County Conservation Alliance
Environment Texas
First Universalist Unitarian Church of SA
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 Alliance
Kendall County Well Owners Association
Kinney County Ground Zero
Leon Springs Business Association
Native Plant Society of Texas – SA
Northwest Interstate Coalition of Neighborhoods
Pedernales River Alliance – Gillespie Co.
Preserve Castroville
Preserve Lake Dunlop Association
Preserve Our Hill Country Environment
RiverAid San Antonio
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
Signal Hill Area Alliance
Sisters of the Divine Providence
Solar San Antonio
Texas Cave Management Association
Trinity Edwards Spring Protection Assoc.
Water Aid – Texas State University
Wildlife Rescue & Rehabilitation
Wimberley Valley Watershed Association

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April 18, 2024

Edwards Aquifer Protection Plan Review
Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, TX 78753

RE: Opposition to the Vulcan Comal Quarry Plant's Edwards Aquifer Protection Plan Application (No. 13001906)
Submitted via email to: eapp@tceq.texas.gov

These comments are submitted on behalf of the fifty-nine member organizations of the Greater Edwards Aquifer Alliance, a 501(c)(3) nonprofit organization that promotes effective broad-based advocacy for the protection and preservation of the Edwards Aquifer, its springs, watersheds, and the Texas Hill Country that sustains it. GEAA has multiple member organizations and individual members that would be adversely affected by the proposed development.

1.0 Background
The applicant, Vulcan Construction Materials LLC., is proposing the construction of a quarry with associated plant areas, office, shop areas, and driveway on approximately 1,515.16 acres. The nine (9) proposed quarry Mining Areas comprise approximately 956 acres. Impervious cover is contributed by the plant area, primary area, stockpile areas, and haul roads and totals approximately 13.81 acres. The quarry site is currently agricultural rangeland. Historical aerial photographs indicate the site was predominantly agricultural rangeland. Vegetation and path clearing have occurred on the site. Several ranch structures were observed on the southern portion of the site. This quarry is located on the southwest corner of FM 3009 and SH-46, Comal County, Texas.

The applicant has submitted an Edwards Aquifer Protection Plan (EAPP) that includes a Water Pollution Abatement Plan (WPAP) for review by TCEQ and concerned parties such as GEAA. The proposed development site is located within the Edwards Aquifer Recharge Zone.

2.0 Comments on the EAPP
Under the federal Clean Water Act, TCEQ is charged with maintaining the quality of our state's waters and protecting their existing uses. The Vulcan Comal Quarry Plant as currently proposed will likely West Fork Dry Comal Creek and the local groundwater quality; therefore, GEAA strongly

opposes Vulcan Construction Materials LLC's EAPP for the reasons presented in these comments.

2.1 Environmentally-Sensitive Location of the Facility

GEAA understands the location of this quarry is within the 100-year floodplain, located on the Recharge Zone of the Edwards Aquifer, and contains thirty-seven sensitive, natural geologic karst recharge features on site. GEAA acknowledges that the applicant states that no mining operations will occur within 25' of the floodplain; however, mining across the Edwards Aquifer Recharge Zone and the identified kart features raises some serious environmental concerns.

The Edwards Aquifer is classified as a karst aquifer, characterized by rapid recharge capacity occurring from the surface through fractures and faults, surficial karst features (caves), sinkholes, and direct recharge from area streams (such as West Fork Dry Comal Creek). This high recharge capability increases the concern of contaminant loads and pollutant sources entering the Edwards aquifer at a rapid rate. Also of concern is the rate at which groundwater moves through these conduits, which can vary tremendously. In the Edwards Aquifer some water may barely move, while in other areas water may travel thousands of meters in a single day. For the Vulcan Comal Quarry Plant, the increased sediment and residual ammonium nitrate fuel oil mixtures (ANFOs) resulting from mining operations raise a concern for the area's underlying aquifer and groundwater supply.

As previously stated, thirty-seven sensitive, natural geologic features were found during the Vulcan Quarry Geologic Assessment. Seven of the features, including three caves, require protection strategies according to the TCEQ rating system. This number of sensitive features appears anomalously low when compared to the surrounding are; a 158-acre tract immediately north of the proposed Vulcan quarry site and across Hwy 46, 38 sensitive features were found, and this site has 1/10 the acreage of the proposed quarry site (Bigbee Tract Geologic Assessment).

2.2 Water Quality Concerns

Residual contamination from the explosives used in rock quarries (especially Nitrates) is a huge concern for the local water quality and for potential negative impacts on endangered species. Evidence exists that quarry operations have impacted the Edwards Aquifer in the past due to residuals from ANFOs. The aggregate industry primarily uses ANFOs as an explosive for day-to-day operation, linking quarries as a known source of nitrate pollution of groundwater. Studies have shown that the amount of ANFO that doesn't combust during an explosion could be as high as 28% (BME, 2016 and Brochu, 2010). This leaves a considerable amount of nitrate available to be dissolved by stormwater passing through the area of the blast. Once dissolved in the water, the nitrate is unlikely to break down into less hazardous components and will travel downgradient along the groundwater flowpaths.

The proposed Vulcan Comal Quarry Plant is located on the Edwards Aquifer Recharge Zone, where the Edwards Limestone is at the surface. If this water pollution abatement plan is

approved as submitted, there is a high likelihood that it will contribute nitrate contamination to the Edwards Aquifer. In addition to nitrate concerns, ANFOs can be organic compounds, such as residual benzene from fuel oil, which has been shown to impact groundwater resources in the vicinity of mining operations.

According to the Texas Water Development Board (TWDB), 33 water wells were found to be within a 1.5-mile distance of the Vulcan Comal Quarry Plant, with 10 wells found to be within a mile distance (Figure 1). Water well data was pulled from three TWDB groundwater databases; TWDB Groundwater Database reporting 2 TWDB wells in the 1.5-mile distance area, Submitted Drillers Reports (SDR) Database reporting 30 wells in the 1.5-mile distance area, and Brackish Resources Aquifer Characterization System (BRACS) Database reporting one well in the 1.5-mile distance area.

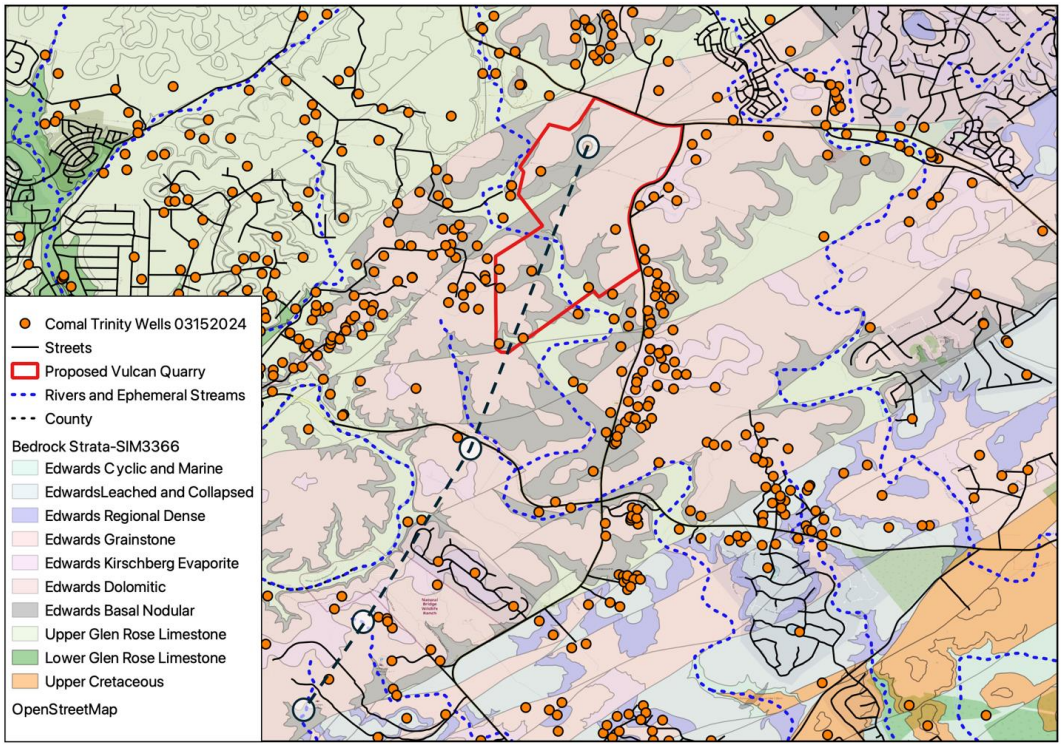


Figure 1: Geologic Map of Central Comal County Showing Water Supply Wells

Further examining the stated water well data, 30 out of the 33 wells were noted to be used for domestic (household) purposes. The volume of wells located in this close proximity to the Vulcan Comal Quarry Plant poses a serious concern of cross-contamination with the local groundwater supply that these well owners rely on to meet their needs. Further, many of these wells are not required to regularly test the water quality of their wells, subjecting them to potential public health concerns that result from the cross-contamination of the Vulcan Comal Quarry Plant's operations and local groundwater supply

Additionally, the location of Vulcan Comal Quarry Plant falls within the boundaries of the Dry Comal Creek/Comal River Watershed Protection Plan (WPP), a US. Environmental Protection

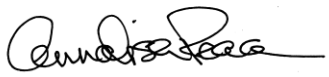
Agency (EPA) sponsored effort to protect this watershed area's natural resources. Since 2017, planning and implementation strategies have been conducted to address water quality concerns to ensure lasting and improved water quality for the Comal River, West Fork Dry Comal Creek, and Dry Comal Creek. Maintaining high-quality flows in these three waterbodies is vital to the local area's recreation, tourism, economic development, and agricultural operations; therefore, GEAA has concerns about the overall environmental integrity of these waterbodies and the impacts of this project on the successful implementation of the WPP.

3.0 Conclusion

With the above comments stated, GEAA encourages TCEQ to deny approval of this plan as currently submitted. We also support the statements made by Preserve Our Hill Country Environment (PHCE).

Thank you for the opportunity to submit these comments.

Respectfully,



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