

Member Organizations

Alamo, Austin, and Lone Star chapters of the Sierra Club
Bexar Audubon Society
Bexar and Travis-Austin 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
Fitzhugh Neighbors
Friends of Canyon Lake
Friends of Castroville Regional Park
Friends of Dry Comal Creek
Friends of Government Canyon
Fuerza Unida
Green Society of UTSA
Guadalupe Riverkeepers
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 NA's
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
The Watershed Association

PO Box 15618, San Antonio, Texas 78212

October 11, 2023

Texas Commission on Environmental Quality
Office of the Chief Clerk, MC 105
P.O. Box 13087
Austin, Texas 78711-3087

Submitted electronically at <http://www14.tceq.texas.gov/epic/eComment/>

Re: Comments and Contested Case Hearing Request Regarding Hays Commons Development Inc. proposed Texas Land Application Permit (TLAP) No. WQ0016373001

Please accept the attached comments on behalf of the fifty-eight member groups of the Greater Edwards Aquifer Alliance.

- 1. Background.** Milestone Community Builders, under the name Hays Commons Development, Inc., has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Land Application Permit (TLAP) No. WQ0016373001 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 150,000 gallons per day via surface application. The domestic wastewater treatment facility and disposal area would be located approximately 0.25 miles southwest of the intersection of Farm-to-Market Road 1626 and State Highway 45 Southwest, in Hays County, Texas 78610. 248.4 acres of the proposed Hays Commons development is within the Edwards Aquifer Recharge Zone (EARZ) and 41.8 acres is within the Edwards Aquifer Transition Zone.
- 2. Greater Edwards Aquifer Alliance (GEAA).** GEAA submits the following comments on behalf of our fifty-eight member organizations and requests a public meeting and a contested case hearing regarding this permit application. GEAA is a 501(c)(3) nonprofit organization that promotes effective broad-based advocacy for protection and preservation of the Edwards and Trinity Aquifers, its springs, watersheds, and the Texas Hill Country that sustains them. GEAA has multiple members who would be adversely affected by the proposed application by Milestone Community Builders.

GEAA's members have serious concerns regarding the permit application, relating to the degradation of Little Bear Creek, the Edwards Aquifer, and area water wells that will likely occur with the irrigation of treated sewage in the proposed development area.

3. Specific Concerns Regarding the Permit Application. GEAA and its members have numerous concerns with the Hays Commons permit application, which fall into four broad categories: a) Wastewater Impacts, b) Stormwater Impacts, c) Combined Impacts, and d) Further Impacts.

- a. Wastewater Impacts. Currently, there are no other developments or municipalities irrigating treated sewage over the EARZ, simply because it is unsafe and could lead to a public health crisis, passing treated sewage directly into the groundwater supply that is being used by many local wells. Yet, that is exactly what is being proposed, even though there are numerous public and private wells that serve the communities of Hays, Manchaca, and elsewhere, all located a short distance from where Hays Commons will be disposing of their treated sewage (see Fig. 1 below).

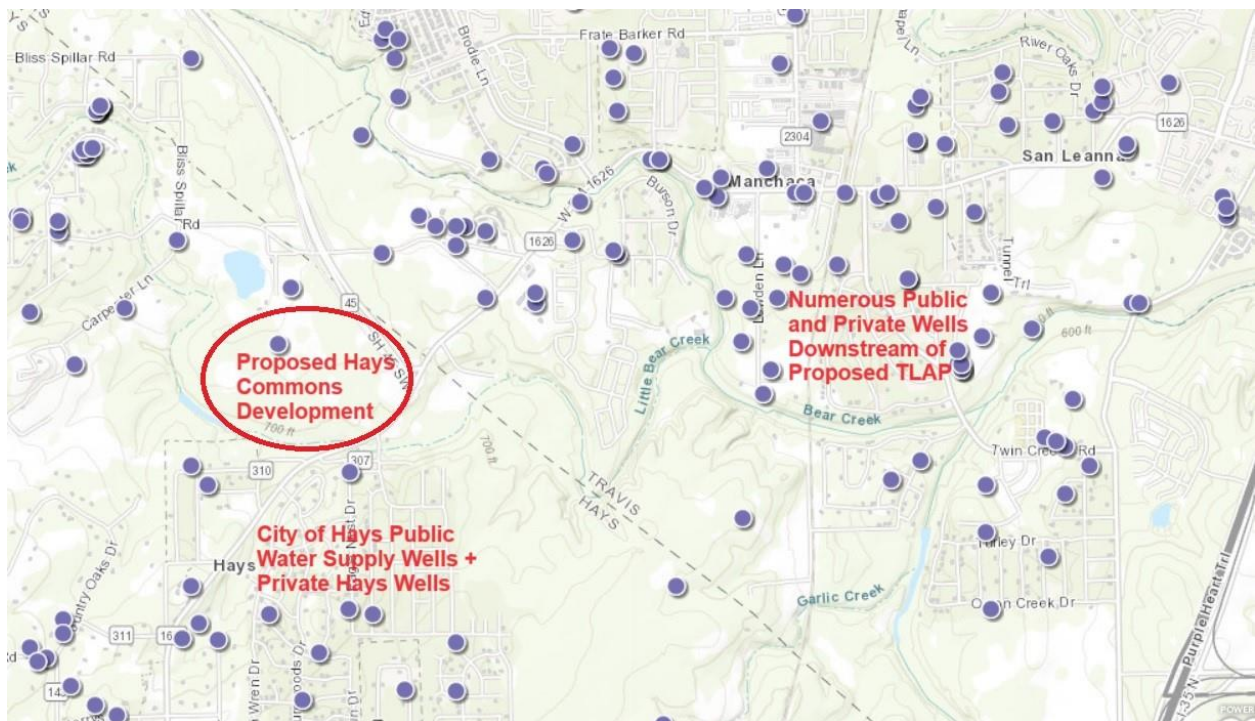


Fig. 1: Numerous existing public and private wells (shown in purple) are located near the proposed Hays Commons development

As can be seen from Fig. 2 on the following page, the proposed TLAP treated sewage irrigation fields for Hays Commons will be located at the confluence of Little Bear Creek and an unnamed tributary, an area which sits directly over the EARZ. The red dots show significant karst features – faults and fractures where surface water flows freely to groundwater. In this sensitive region, anything that flows across the surface, including treated sewage, will end up in local groundwater, if the Hays Commons wastewater permit is granted by TCEQ.

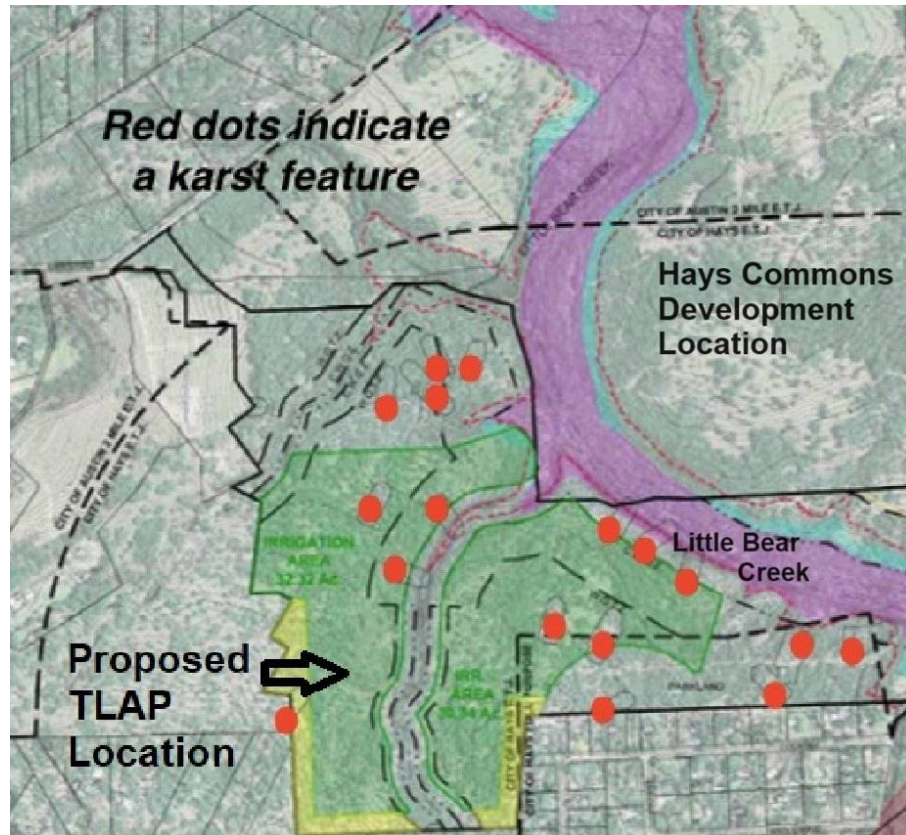


Fig. 2: The proposed area for disposing of Hays Commons treated sewage contains many karst features which provide a direct path from the surface to groundwater

The proposed pollution limits on the Hays Commons TLAP permit application are also problematic, as the proposed limits are far too lax for the EARZ. Milestone has proposed a 5-5-2-1 permit, with 5 mg/l Biochemical Oxygen Demand (BOD), 5 mg/l Total Suspended Solids (TSS), 2mg/l Ammonia Nitrogen, and 1mg/l Total Phosphorous. There is no limit proposed for Total Nitrogen, which needs to be addressed in the permit. The EPA specifies maximum effluent limits of 0.56 mg/l Total Nitrogen and 0.023 mg/L Total Phosphorous in order to protect biological species and prevent eutrophication in a waterway¹. The proposed phosphorus limit is over 43 times the EPA recommendation, and as mentioned, no Total Nitrogen limit is provided, even though Total Nitrogen is an important driver of eutrophication in a waterway. There also is no limit in the permit application for *E. coli* bacteria, which is deeply concerning, given the potential health hazard *E. coli* represents and the fact that a direct pathway exists from effluent to groundwater to drinking water wells of area residents.

The proposed Hays Commons TLAP plan provides the required buffer zones around sensitive karst features in the delineated TLAP field. We find the plan

¹ <https://www.epa.gov/nutrient-policy-data/ecoregional-nutrient-criteria-rivers-and-streams>

problematic, however, in that there are so many sensitive karst features in the area proposed for effluent irrigation; the presence of over 25 of these sensitive karst features proximal to the irrigation field will make it difficult if not impossible to keep the effluent from directly entering into the Edwards Aquifer through these recharge features. Fig. 3 below is taken from the Hays Commons permit application documents, showing the proposed TLAP field in darker shade, the sensitive Karst features as asterisks, and the proposed buffer zones around these features in lighter shade buffers around the asterisks. It is readily apparent from looking at Fig. 3 that there are so many sensitive Karst features in the proposed TLAP field that it would be difficult if not impossible to situate the effluent spray nozzles so that effluent doesn't accidentally enter one or more sensitive Karst features, and by extension the Edwards Aquifer. Fig. 3 shows the difficulty of trying to irrigate treated sewage over the EARZ – there are simply too many faults and fractures in the proposed TLAP field to ensure the water quality of the underlying Edwards Aquifer.

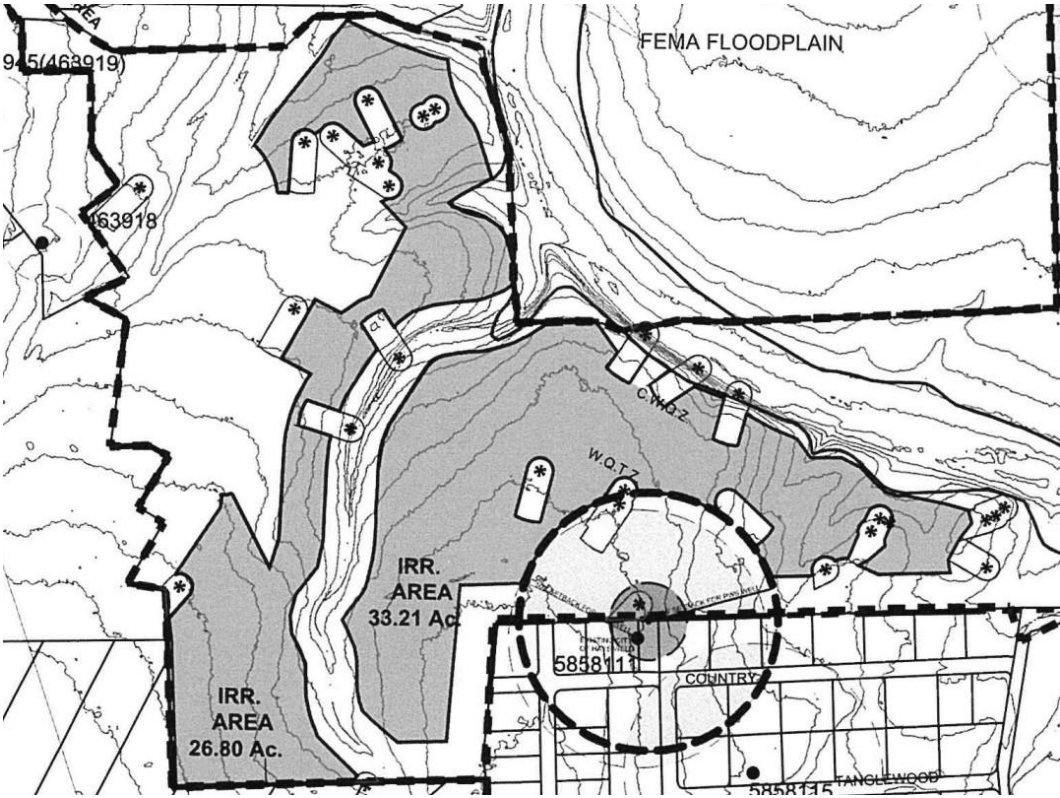


Fig. 3: There are over 25 sensitive Karst features which must be avoided by effluent spray, making nozzle placement extremely challenging if not impossible.

- b. Stormwater Impacts. The proposed Hays Commons tract is known for flooding, with a substantial area of the tract in the 100-year and 500-year flood plains of Little Bear

Creek, according to the Hays Commons preliminary plat. Seven of the proposed twenty single-family homes are surrounded on three sides by floodplain. Furthermore, the area contains thin soils that do not absorb water very well; in fact, 97% of the proposed Hays Commons soils are Category D soils, the highest runoff rating of all soils.

Into this flood-prone area with high-runoff soils, Milestone has proposed 14 acres of commercial property with 70% impervious cover, which will lead to potential groundwater contamination from constituents commonly associated with automobile parking areas whenever there are heavy rains. They attempt to mitigate the high percentage of impervious cover by including high-density condo units in the tract. But the overall impervious cover for the entire proposed development is still 16% over the 15% maximum impervious cover limit specified in the Save Our Springs (SOS) Ordinance for development over the EARZ within that jurisdiction.

The construction phase of this development is also of great concern, especially given the proximity of the proposed construction to both Little Bear Creek and the underlying Edwards Aquifer. There are legitimate concerns that the temporary erosion and sedimentation control facilities proposed by the developer will not be adequate to prevent pollution of Little Bear Creek and the Edwards Aquifer during the construction phase.

Once construction is completed, Milestone proposes two batch detention ponds as the sole means of maintaining water quality for this development. Batch detention ponds can be effective for removing total suspended solids (TSS), with properly maintained systems. However, they are less effective at removing fluid pollutants such as oil and gasoline, and wastewater nutrients such as nitrogen and phosphorous that may not be absorbed within a land application irrigation field (and importantly, there are no batch detention ponds proposed between the TLAP field and Little Bear Creek, meaning any overflow from the TLAP field would run directly into Little Bear Creek and by extension the Edwards Aquifer, since this development is located on the EARZ).

If the two proposed batch detention ponds aren't properly maintained, solid pollutants in addition to fluid pollutants could find their way into Little Bear Creek and then groundwater. During the past eighteen years, we have seen numerous stormwater detention plans that were never fully implemented or that failed to function properly coupled with a failure on the part of TCEQ staff to make sure approved plans were adhered to and functional through follow-up inspections. Given the budgetary and staff shortages of TCEQ, we urge caution in approving high maintenance plans such as this one, especially given the environmentally-sensitive location on the EARZ.

- c. Combined Impacts. Taken together, the wastewater issues and the stormwater issues create a combined set of issues that threaten Little Bear Creek and the Edwards Aquifer even further. During heavy rains, the 32-acre TLAP field with its thin soils would easily become saturated, in effect becoming 32-acres of additional impervious cover. This would effectively increase the impervious cover for the development from 16% to 27%, almost double the 15% impervious cover specified by the SOS Ordinance. The combined effect means the saturated TLAP field would not only become impervious, but the surface irrigation system would be dumping 150,000 gallons per day of treated sewage directly into adjacent Little Bear Creek and hence the Edwards Aquifer that Little Bear Creek recharges. Added to this would be stormwater that flows over the TLAP field and evades or overflows the two batch detention ponds, creating a combined mess of wastewater and stormwater that could seriously pollute the drinking water of thousands of area residents who rely on local wells in this area.

- d. Further impacts. If the Hays Commons wastewater permit is approved by TCEQ, the effluent wouldn't just impact nearby wells and water supply; because of the interconnected nature of the Edwards Aquifer and its surface waterways, the impacts of aquifer contamination with treated sewage and stormwater runoff could be seen quite some distance away. Fig. 4 below shows the groundwater flow path in northern Hays County and southern Travis County.

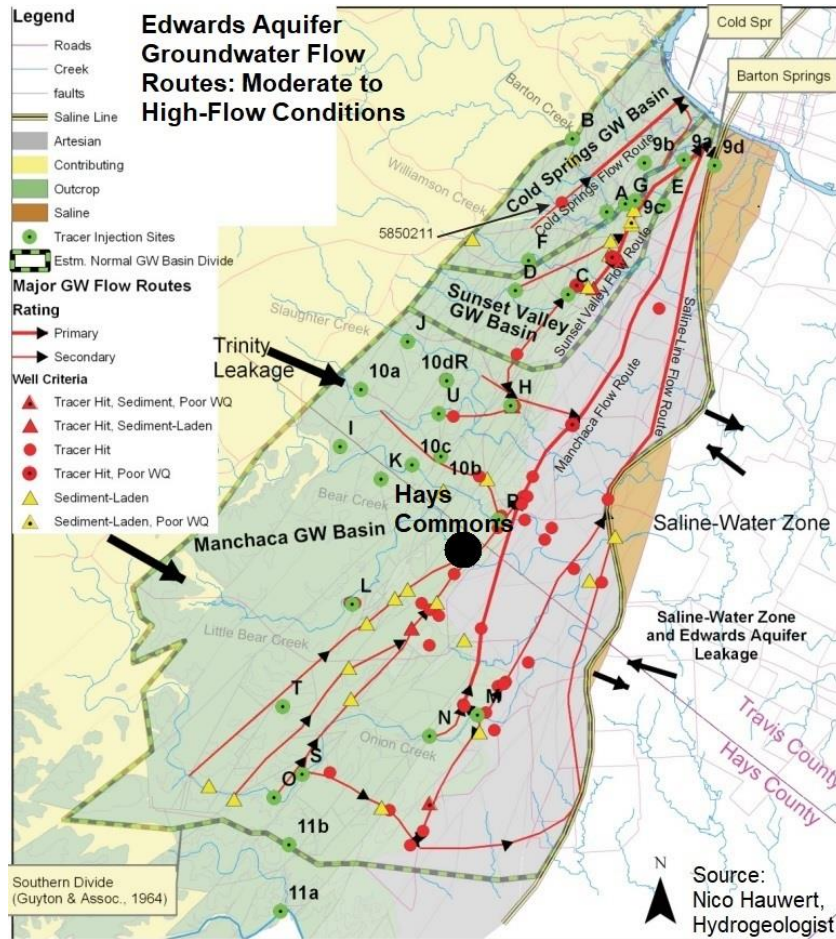


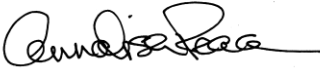
Fig. 4: The Manchaca Flow Route runs near the proposed area for Hays Commons; any surface pollutants from Hays Commons would likely end up in the Edwards Aquifer and Barton Springs

Note the primary Manchaca Flow Route passes right next to the proposed Hays Commons development and extends all the way to Barton Springs. Any contaminants entering the Edwards Aquifer from the many karst features on the proposed Hays Commons tract would travel quickly down a flow path from northern Hays County into Travis County, through South Austin, and directly into Barton Springs pool, contaminating water wells along the way.

4. Conclusion. In summary, the high-density type of development proposed by Milestone with high impervious cover, coupled with their plan to irrigate treated sewage over the recharge zone, is ill-suited for the environmentally-sensitive nature of the area. Existing development in this area respects the location over the EARZ and consists predominantly of single-family homes on one acre plus lots, with On-Site Septic Facilities (OSSFs) for wastewater. Dropping in a high-density development with 14 acres of 70% impervious cover commercial space, plus a 32-acre treated sewage irrigation field over numerous Karst features is not only incongruous to the existing area aesthetic but will likely lead to significant groundwater contamination. We urge TCEQ to reject the Hays Commons wastewater permit application in its entirety.

Thank you for the opportunity to submit these comments.

Respectfully,

A handwritten signature in black ink, appearing to read "Annalisa Peace". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Annalisa Peace
Executive Director
Greater Edwards Aquifer Alliance