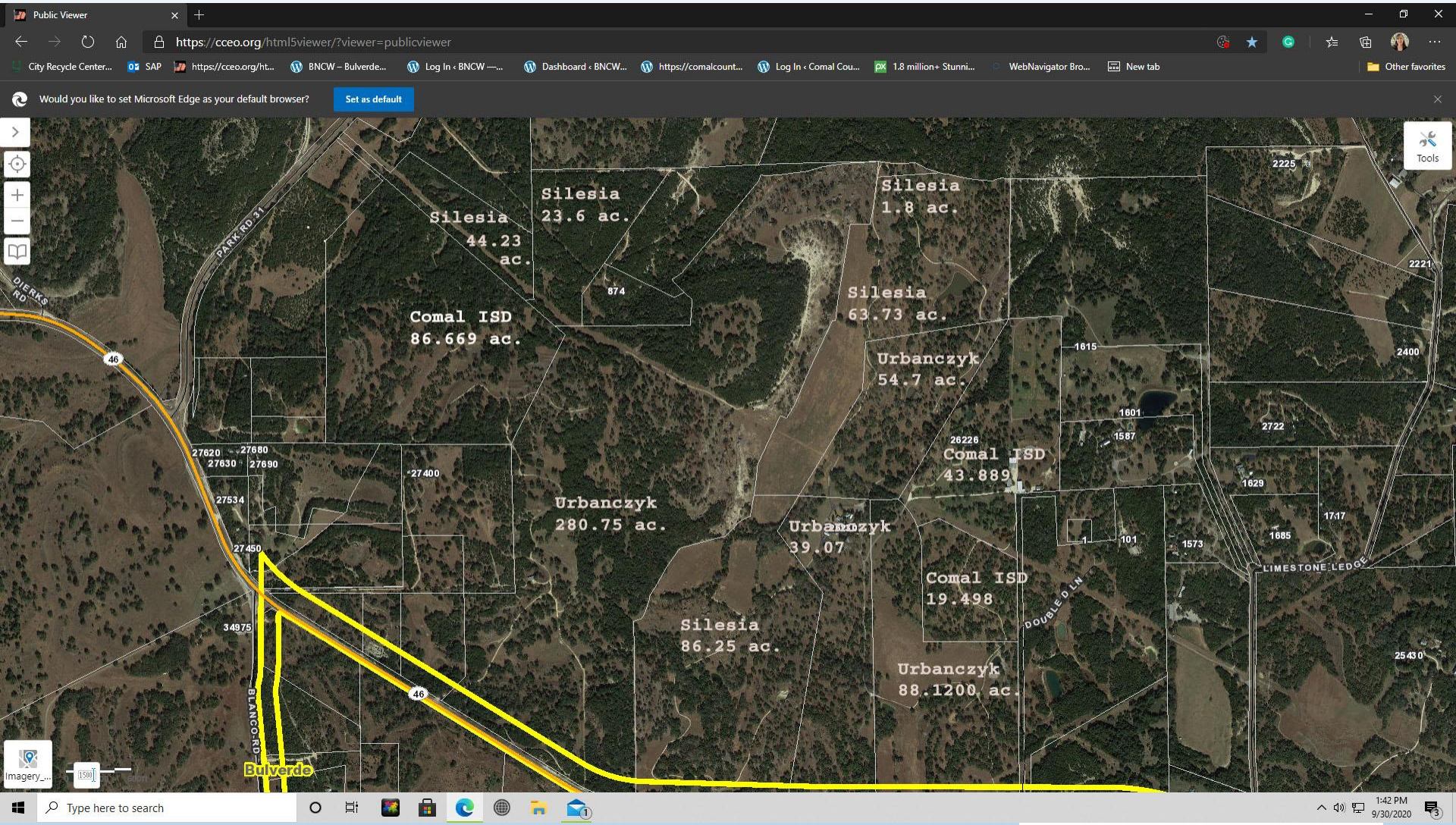
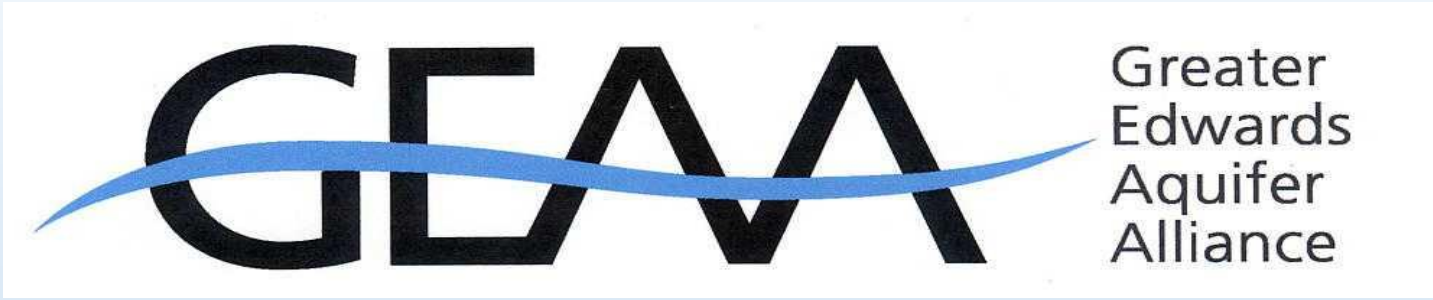
Honey Creek Ranch Municipal Utility District



Presentation to the Lindheimer Chapter of the Texas Master Naturalists – 10/15/2020

GEAA Greater Edwards Aquifer Alliance

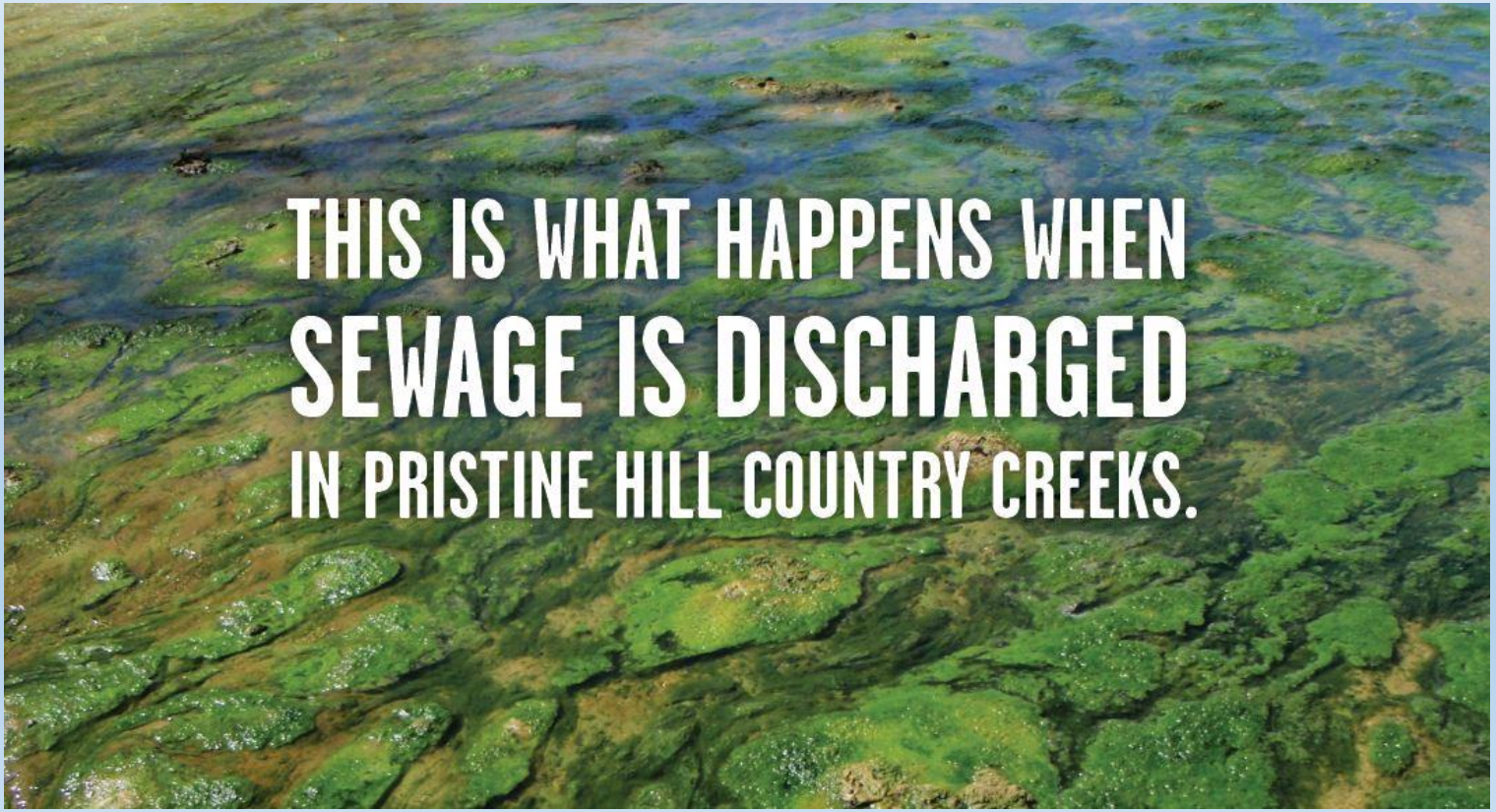


The Greater Edwards Aquifer Alliance is a coalition of 53 member groups formed to protect the Edwards Aquifer and its contributing Hill Country watersheds. For more information visit our website at **www.AquiferAlliance.org**

In the fall of 2018 Silesia Properties applied for permit to dump 500,000 gallons/day of treated sewage into an unnamed tributary that flows into Honey Creek just upstream of the Honey Creek State Natural Area and the Guadalupe River State Park.

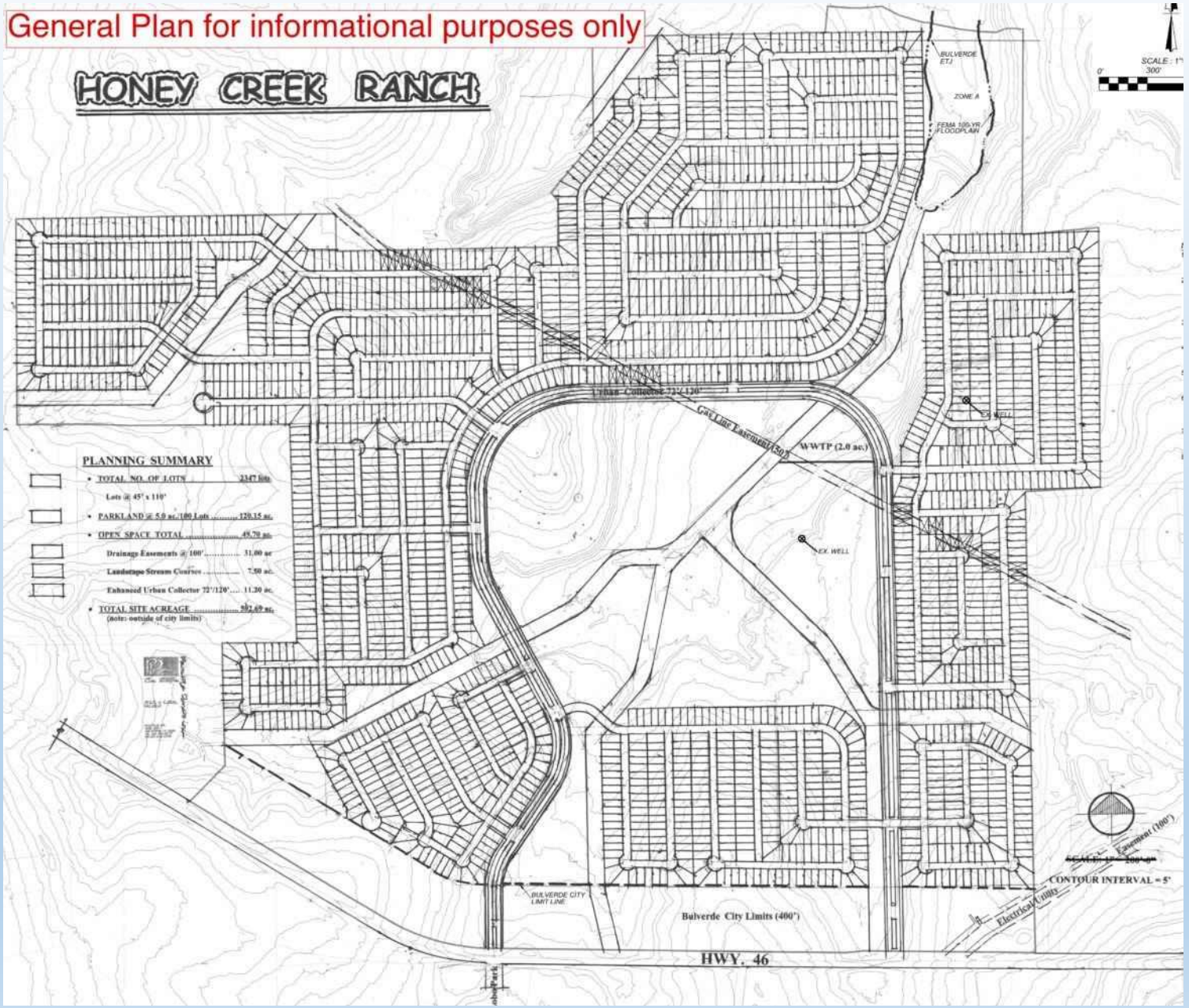
Guadalupe River State Park, immediately downstream of the confluence of Honey Creek and the Guadalupe River, has long been one of our state's most popular places to toss in a tube and 'float the Guadalupe.' During average conditions, a substantial portion of the flow into the State Park would have consisted of nutrient-laden effluent, impacting recreational activities such as swimming, fishing, canoeing, and inner tubing on the river.

GEAA organized citizens and groups to contest this permit.



The two watersheds in the Honey Creek State Natural Area are in the catchment area of the Edwards Aquifer about 25 miles north of San Antonio. The catchment area, adjacent to the Edwards Aquifer Recharge Zone, comprises the upper parts of drainage basins of streams that lose water to the Edwards Aquifer as the streams cross the recharge zone. The watersheds are drained by ephemeral, first order streams that are tributaries to Honey Creek, a tributary to the Guadalupe River.

Photo Credit: Brendan Gibbons for San Antonio Report



A planned subdivision of 2,396 homes on 592 Acres

Some issues with sewage infrastructure in the Edwards Aquifer Watershed:

- Because of State imposed limits on impact fees, citizens and ratepayers often end up subsidizing infrastructure for new development.
- Septic spacing regulations in Comal County require minimum lot size is 1 acre if it is served by a public water supply and 5.01 acres if it is served by a private water supply.
- Centralized sewage infrastructure allows for much greater density – typically 5-6 homes/acre.
- Adding more households in environmentally sensitive areas can impact groundwater supplies and local wells.
- Emerging contaminants in sewage effluent can impact aquatic wildlife.
- Receiving water bodies may be extremely high quality.

In the Edwards Aquifer Recharge and Contributing zones Increased Urbanization is Impairing Water Quality

Results of EAA well tests (2011 – 2014*) detecting anthropogenic or "emerging" contaminants (pharmaceuticals and personal care products)

Analytic MethodChemical NameResultUnitAY-68-28-2118/22/11 10:50 AMWS-LC-002217**a-Estradiol1.2ng**/lAY-68-28-2118/22/11 10:50 AMWS-LC-0022**Equilenin3.8ng/**lAY-68-28-2118/22/11 10:50 AMWS-LC-0022**Estrone6.9ng/**lAY-68-28-2118/22/11 10:50 AME1694**Triclocarban2.9ng**/lAY-68-28-2118/22/11 10:50 AME1694**Tylosin2.3ng**/lAY-68-28-6088/18/11 10:30 AME1694**Cotinine1.7ng**/lAY-68-28-6088/18/11 10:30 AME1694**Cotinine1.7ng**/lAY-68-28-6088/18/11 10:30 AME1694**Lincomycin0.51ng**/lAY-68-28-6088/18/11 10:30 AME1694**Lincomycin0.51ng/**lAY-68-28-6089/19/12 12:40 PME1694**Diltiazem7.9ng/**lAY-68-29-1128/18/11 1:35 PME1694**Lincomycin0.42ng**/lAY-68-29-1121/11/12 11:05 AME1694**Caffeine53ng/**lAY-68-29-1121/11/12 11:05 AMWS-LC-0022**Estrone1.6ng**/lAY-68-29-1121/11/12 11:05 AME1694**Lincomycin0.27ng/**lAY-68-29-1138/18/11 12:05 PME1694**Lincomycin0.31ng**/lAY-68-29-1138/18/11 12:05 PME1694**Lincomycin0.31ng**/lAY-68-29-1131/10/12 11:25 AMWS-LC-002217a-**Estradiol1.4ng/**lAY-68-29-1131/10/12 11:25 AMWS-LC-002217b-**Estradiol1.5ng/**lAY-68-29-1131/10/12 11:25 AME1694**Caffeine320ng**/lAY-68-29-1131/10/12 11:25 AME1694**Diltiazem0.48ng**/lAY-68-29-1131/10/12 11:25 AMWS-LC-0022**Estrone1.3ng/**lAY-68-29-1131/10/12 11:25 AME1694**Lincomycin0.69ng/**lAY-68-29-1131/10/12 11:25 AME1694**Triclosan17ng**/lAY-68-29-4181/17/12 9:45 8/16/12 9:50 AME1694**Thiabendazole24ng/**lDX-68-15-901 Hueco Springs12/3/12 1:15 PME169817**a-Estradiol1.60ng**/lDX-68-15-901 Hueco Springs12/3/12 1:15 PME1694**Cotinine4.85ng**/lDX-68-15-901 Hueco Springs12/3/12 1:15 PME1694**Diltiazem0.705ng/**lDX-68-23-301 Comal Springs8/23/11 8:50 AMWS-LC-002217**a-Estradiol4.3ng**/lDX-68-23-301 Comal Springs8/23/11 8:50 AMWS-LC-002217**b-Estradiol7.0ng**/lDX-68-23-301 Comal Springs8/23/11 8:50 AMWS-LC-0022**Equilenin0.72ng**/lDX-68-23-301 Comal Springs8/23/11 8:50 AMWS-LC-0022**Estrone5.8ng**/lLR-67-01-801 Hotel Springs at San Marcos12/3/12 11:50 AME1694**Cotinine4.73ng**/lLR-67-01-801 Hotel Springs at San Marcos12/3/12 11:50 AME1694**Diltiazem0.451ng**/lLR-67-09-101 12/14/12 12:00 AME1694**Caffeine250ng**/lLR-67-09-101 12/14/12 12:00 AME1694**Carbamazepine19ng**/lLR-67-09-101 12/14/12 12:00 AME1694**Sulfamethoxazole12ng/**l

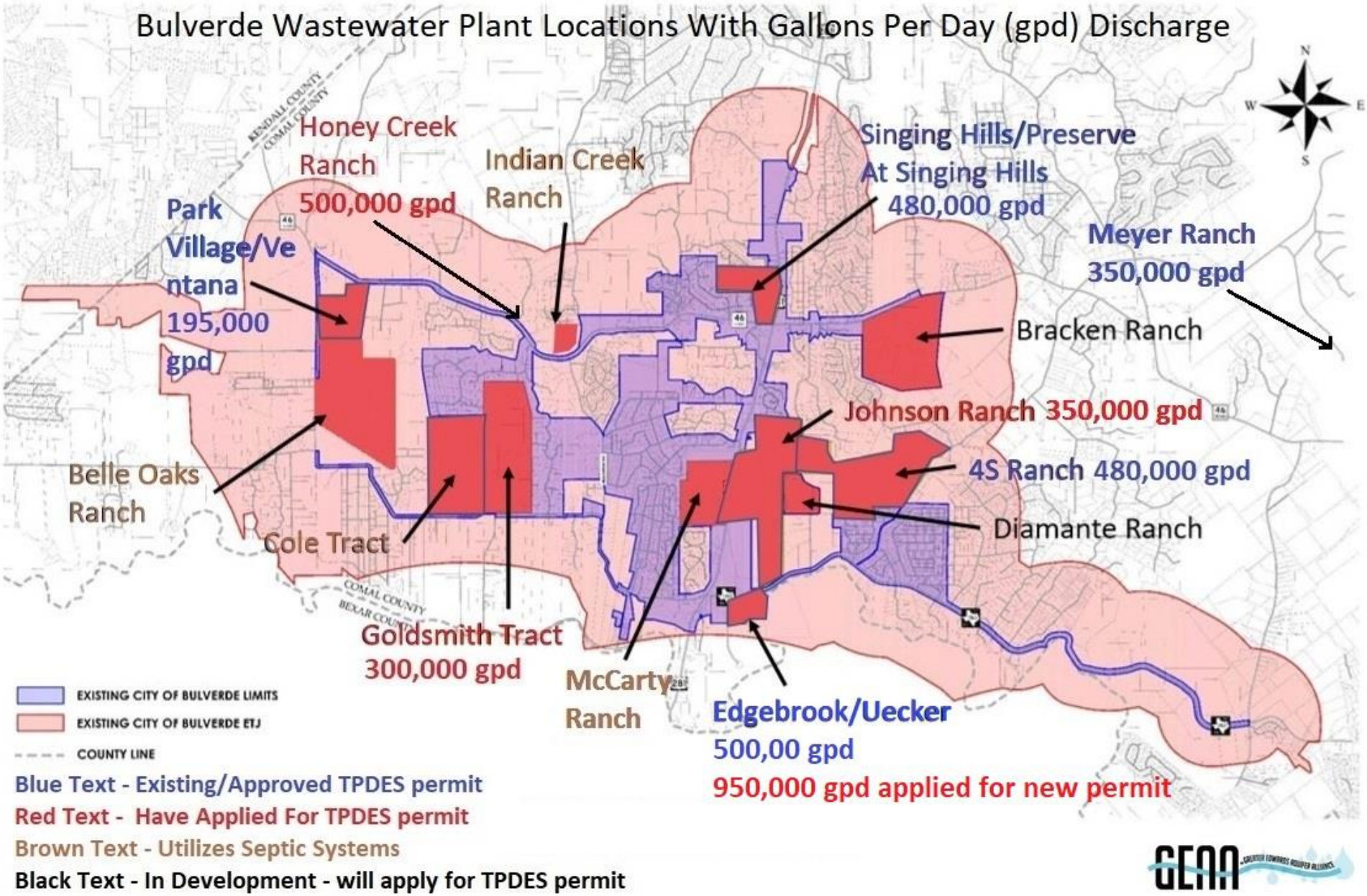
*excludes results from test well near Cibolo Nature Center

Lincomyicin and sulfamethoxazole are antibiotics ·Diltiazem is a blood pressure medication · Carbamazepine is an epilepsy medication . Cotinine is a nicotine metabolite

TCEQ needs help with oversight…

"The permit approval process should be the most closely followed process in following the intentions and realistic goals of wastewater treatment facilities. In an evaluation of the U.S. Environmental Protection Agency's Permit Compliance System data revealed that 56 % of major facilities in Texas were in Significant Non-Compliance (SNC) of their wastewater discharge permits for at least one quarter during the 15 months beginning January 1, 2000 and ending March 31, 2001. This was nearly twice the national average of 30 percent of major facilities in violation, and Texas ranked 2nd in the nation for percentage of major facilities in violation."

Source: EPA, Permit Compliance System Database as reported in Texas Center for Policy Studies, Environmental Enforcement in Texas: A Review of Trends and Issues, February 2003.


Bulverde Wastewater Plant Locations With Gallons Per Day (gpd) Discharge
Honey Creek Ranch 500,000 gpd
Indian Creek Ranch
Singing Hills/Preserve At Singing Hills 480,000 gpd
Park Village/Ventana 195,000 gpd
Meyer Ranch 350,000 gpd
Bracken Ranch
Johnson Ranch 350,000 gpd
4S Ranch 480,000 gpd
Diamante Ranch
Belle Oaks Ranch
Cole Tract
Goldsmith Tract 300,000 gpd
McCarty Ranch
Edgebrook/Uecker 500,00 gpd
950,000 gpd applied for new permit
KENDALL COUNTY
COMAL COUNTY
BEXAR COUNTY
EXISTING CITY OF BULVERDE LIMITS
EXISTING CITY OF BULVERDE ETJ
COUNTY LINE
Blue Text - Existing/Approved TPDES permit
Red Text - Have Applied For TPDES permit
Brown Text - Utilizes Septic Systems
Black Text - In Development - will apply for TPDES permit

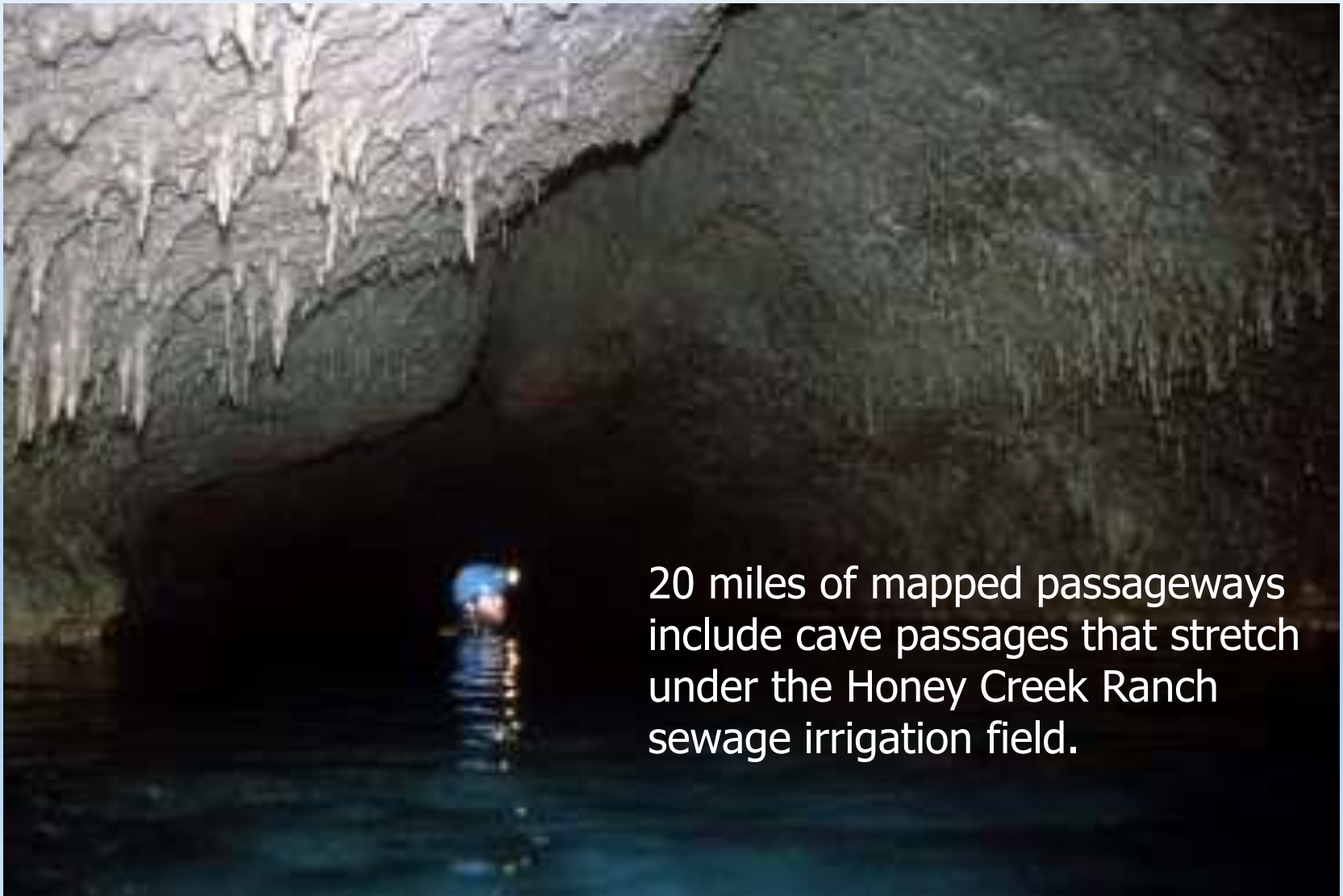
In December 2019, Silesia Properties, developer of the Honey Creek Ranch, withdrew their application for a TPDES permit and applied for a Texas Land Application Permit (TLAP). This was a minor victory and, in most cases, GEAA would be content with the application for the TLAP rather than the direct discharge permit.

In this case, however, our baseline water quality studies of the Honey Creek indicate that this is probably one of the cleanest natural streams in the whole state of Texas. Preliminary water quality testing of the receiving water body conducted by GEAA and the Meadows Center for Water and the Environment indicate that Honey Creek is one of the clearest-flowing streams in the Texas Hill Country. GEAA and others do not believe that Texas regulations are sufficient to protect Honey Creek. Given that the state has invested substantially in the Honey Creek State Natural Area to preserve this treasure, as well as in the Guadalupe State Park, we feel that the risk of both waste water and stormwater pollution from an extremely high density subdivision at Honey Creek Ranch is something we should make every effort to mitigate.

The planned Honey Creek Ranch development creates at least three major problems regarding stormwater runoff in the area:

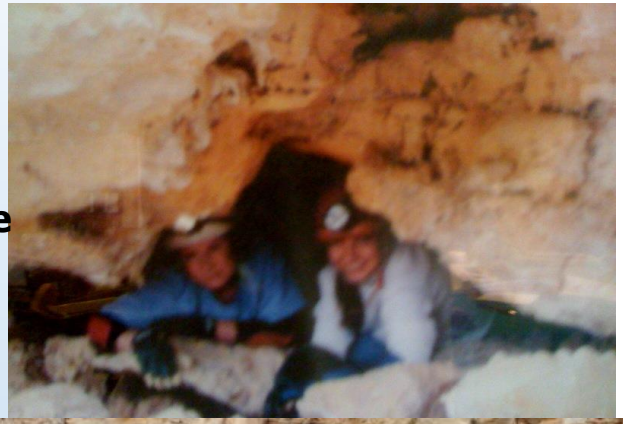
- **Over 100 acres of new impervious cover from the housing units, streets, sidewalks, and other non-permeable surfaces will increase the volume and velocity of water flowing into the Creek, thus scouring and permanently altering the riparian area.**
- **Additional nutrient inputs to Honey Creek associated with fertilizing yards, pet waste, and other point and non-point sources of nutrient pollution in the storm runoff will deliver additional contaminants including sediment, bacteria, oil and grease, trash, pesticides, and metals.**
- **The amount of land Honey Creek Ranch is setting aside for irrigation is not sufficient to accommodate full build out of the development. As is common practice, they may apply to amend the TLAP to a direct discharge (TPDES) permit as they commence with completion of all phases of the subdivision. A waterlogged 84-acre TLAP field which, due to the high land application rates will act as mostly impervious cover**

- **Experts fear stormwater and effluent runoff and trash from Honey Creek Ranch will impact Honey Creek Cave – the longest known cave in Texas.**

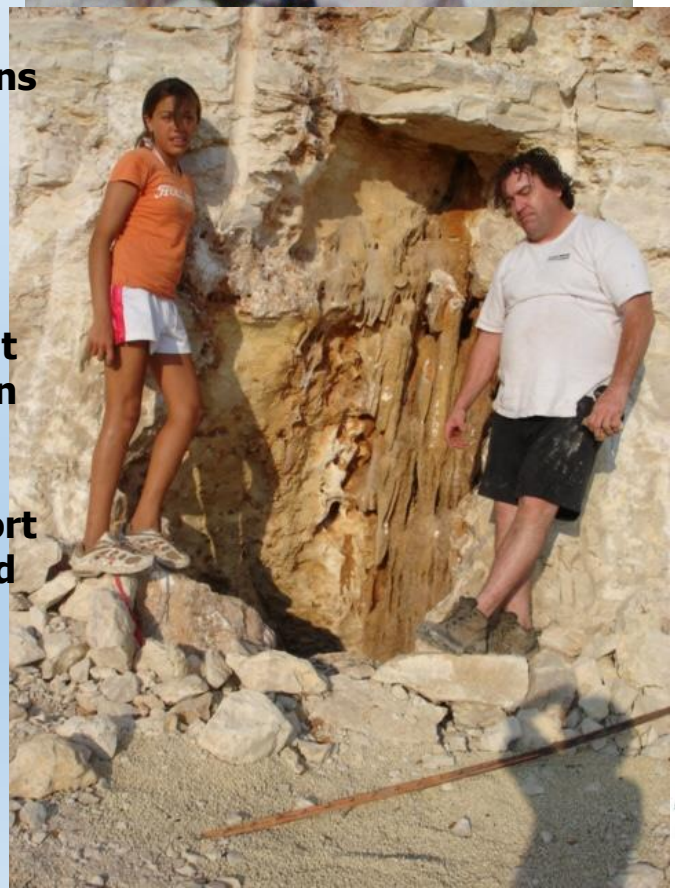


Preserving Caves and Recharge Features

Impervious Cover Limits for the Edwards Aquifer Recharge Zone are the best strategy we have to preserve Caves



Other strategies include protections for endangered karst species.

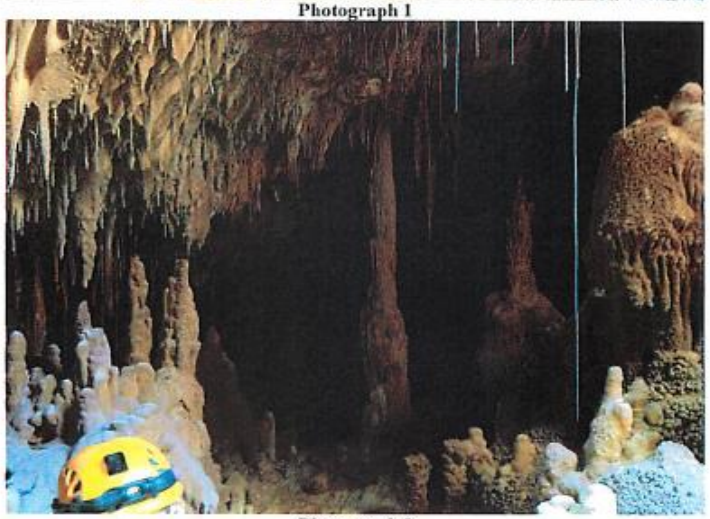


Urge Comal County to adopt a Habitat Conservation Plan for cave species

Call GEAA to report caves endangered by development

The Ridge at Lookout Canyon Phase II PUD

Photograph 1



Photograph 2

SITE PHOTOGRAPHS

PAPE-DAWSON ENGINEERS

GEAA has been joined by

- **the Texas Cave Management Association**
- **Bulverde Neighborhoods for Clean Water**
- **Affected Landowners**
- **& Concerned Citizens**

Sign the petition at:

https://www.change.org/SaveHoneyCreek-2020

Keep up with the latest news on Facebook:

https://www.facebook.com/SaveHoneyCreek/

Contribute to the legal fund:

GEAA, PO Box 15618, San Antonio, Texas 78215
(write "Honey Creek" in subject line on check)

- **Thank you!**

You can learn more about the impacts of wastewater in the Texas Hill Country at

https://aquiferalliance.org/waste-water-discharge/

You may contact us at **210-320-6294**

Annalisa@AquiferAlliance.org

Visit our web site at

www.AquiferAlliance.org

Like the Greater Edwards Aquifer Alliance on Facebook