



LEAGUE OF WOMEN VOTERS - Comal Area

MAKING DEMOCRACY WORK

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LWV-CA Comments to TCEQ, regarding wastewater discharge, Indian Creek

For: Public Meeting, February 7, 2019, 7:00 pm
Rahe Bulverde Elementary School
1715 E. Ammann Rd, Bulverde, TX

Re: Application for TPDES Permit for Municipal Wastewater Amendment
Permit No. WQ0015092001

My name is Jensie Madden. I am speaking on behalf of the League of Women Voters of the Comal Area. We ask TCEQ to deny this amendment that would change the permit from a TLAP permit to a TPDES permit.

The LWV takes positions on issues only after member study and agreement. The members of LWV-Comal Area are residents of Comal and Guadalupe counties and include members living in the Bulverde and Spring Branch area. Our members have been studying the impacts of growth in our community since 2003, and we are very concerned about the increasing discharge of wastewater into our fragile Hill Country creeks and streams.

Our members support:

- protection of water quality;
- protection of riparian areas, flood plains, and areas made subject to downstream flooding by development; and
- prevention of harmful contamination of aquifers.

We believe that allowing the applicant to discharge 300,000 gallons per day of wastewater into a tributary that flows into Indian Creek, and from there into Cibolo Creek, would be extremely detrimental to water quality in those streams and creeks. Eventually, such a discharge would be detrimental to water quality in the Edwards Aquifer and possibly the Trinity Aquifer.

There are many risks associated with this proposed discharge of wastewater. We have listed some of the risks, along with references to scientific studies at the end of these written comments. We also have additional written questions for TCEQ.

We especially want to call attention to the special problem of the additive effect of all of these risks as more and more TPDES permits are approved here in the Bulverde/Spring Branch area. Current and proposed discharge permits for Singing Hills, Johnson Ranch, 4S Ranch, and Park Village/Ventana could add up to a million gallons per day of wastewater discharge.

How does the TCEQ address the cumulative effect of nitrogen, phosphorus, and contaminants from all these sources that eventually accumulate in Cibolo Creek, a major recharge feature of the Edwards Aquifer?

LWV-CA members believe that the applicant's wastewater belongs in land application, using its current TLAP permit, not in our streams and creeks. Please deny this TPDES application.

(See p. 2 for List of Risks/Scientific References/Questions for TCEQ)

The League of Women Voters encourages the informed and active participation of citizens in government and influences public policy through education and advocacy. LWV does not support or oppose any political parties or candidates.

List of Risks/Scientific References/Questions for TCEQ:

1. Hill Country streams and creeks are naturally low in nutrient concentrations. When they receive wastewater effluent, even low levels of added nutrients can cause eutrophic conditions in streams and creeks, resulting in algae blooms. References:

As cited in this USGS report **prepared in cooperation with TCEQ**, streams receiving wastewater effluent had relatively high nutrient concentrations and were classified as eutrophic.

“Nutrient and Biological Conditions of Selected Small Streams in the Edwards Plateau, Central Texas, 2005-06, and Implications for Development of Nutrient Criteria,” Jeffrey A. Mabe, USGS Scientific Investigations Report 2007-5195.

<https://pubs.er.usgs.gov/publication/sir20075195>

EPA recommendations for Ecoregion IV: 0.56 mg/l for total nitrogen and 0.023 mg/l for total phosphorus.

“Ambient Water Quality Criteria Recommendations, Rivers and Streams in Nutrient Ecoregion IV,” U.S. Environmental Protection Agency, Publication 822-B-01-013, December 2001.

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

Study shows that phosphorus levels as low as 0.05 mg/l have produced higher than average algal biomass in streams.

“Nutrient Targets for Lake Waco and North Bosque River, Developing Ecosystem Restoration Criteria,” Richard L. Kiesling, et.al., Texas Institute for Applied Environmental Research, Tarleton State University, August 2001, p. 34, Figure 12.

<http://tiaer.tarleton.edu/pdf/TR0107.pdf>

Questions to TCEQ:

- a. **Will nitrogen and phosphorus levels of the wastewater discharge be equal or less than naturally occurring levels in Indian Creek?**
 - b. **Does the applicant propose to adjust nitrogen and phosphorus levels dependent on amount of water in the streambed, especially during drought conditions?**
2. Many contaminants are not removed by wastewater treatment, like pharmaceuticals, personal care products, cleaning chemicals, and other Endocrine Disrupting Chemicals (EDCs). Wastewater discharged into Hill Country streams and creeks with low flow could enter the groundwater to be used as drinking water from nearby wells. The cumulative effects of these contaminants in drinking water are still being evaluated.
Reference:

Study finding cumulative effects of EDCs in wastewater on fish populations.

“Reproductive Disruption in Fish Downstream from an Estrogenic Wastewater Effluent,” Alan M. Vajada, et.al., *Environmental Science Technology*, 2008, 42 (9), pp. 3407-3414.

<https://pubs.acs.org/doi/10.1021/es0720661>

Question to TCEQ: How will the applicant mitigate the possible effects of these contaminants in the groundwater downstream of the discharge?

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