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Report Documents Growing Threats to the Edwards Aquifer from State-Approved Wastewater Irrigation Facilities.

A new report released today by the Greater Edwards Aquifer Alliance and Save Our Springs Alliance shows that the state's permitting of land disposal of wastewater is failing to protect the Edwards Aquifer and Hill Country springs, creeks, rivers, and groundwater. According to the report, *Land Applied Wastewater Effluent Impacts on the Edwards Aquifer*, prepared by Dr. Lauren Ross, Ph.D., P.E. of Glenrose Engineering, a growing body of evidence establishes that poorly operated systems and a lack of permit standards are putting water resources at risk and causing pollution.

The new report builds on recent studies by the U.S. Geological Survey and the City of Austin that found nitrogen pollution in Barton Springs increased significantly in 2008 and that a likely source of this pollution was land-applied wastewater.

Dr. Ross's report undertakes a comprehensive review of the Texas Land Application Permits (TLAPs) issued by the Texas Commission on Environmental Quality (TCEQ) in the recharge and contributing zones of the Barton Springs and San Antonio segments of the Edwards Aquifer. There are sixty-seven (67) permitted facilities, most of them serving primarily residential developments located in suburban and rural areas beyond the reach of centralized, city-operated wastewater treatment systems. The Barton Springs portion of the Edwards Aquifer has a much higher concentration of the wastewater irrigation facilities than the San Antonio segment of the aquifer. See this map.

The conclusions of the report are troubling.

"Despite being labeled "no discharge" permits, we are seeing wastewater migrating and causing significant water quality degradation from TCEQ-permitted land application facilities," said Dr. Ross. "In reality, the systems cause "indirect discharge" of wastewater to streams. The TCEQ needs to take a hard look at the growing use of these permits over the Edwards Aquifer and address the failures of the current regulations."

Other alarming findings from Dr. Ross's report include:

➤ The volume of wastewater disposed over the Edwards Aquifer has dramatically increased in recent years, especially in the Barton Spring segment of the Edwards Aquifer.

- ➤ Current TLAPs have inconsistent, inadequate, and sometimes non-existent standards for treatment, storage, irrigation area, and monitoring.
- ➤ Only two out of the sixty-four TLAPs reviewed by Dr. Ross have been reporting results of soil monitoring, in violation of TCEQ permit requirements. Soil monitoring is currently the most important regulation for detecting over-saturation of soils and poor treatment of wastewater
- ➤ Most TLAPS have no provisions limiting increases in nutrient concentrations—the primary pollution threat for Hill Country water bodies—and no requirements to monitor downgradient springs, creeks, and rivers.
- The report recommends that wastewater irrigation over the recharge zone of the Edwards Aquifer be prohibited. Currently, none of the more than 60 irrigation facilities in the Edwards Aquifer watershed are located on the recharge zone: all are placed on the upstream contributing zone. However, current TCEQ rules allow wastewater irrigation on the recharge zone. A development group called "Jeremiah Venture" is currently seeking a wastewater irrigation permit to serve a proposed 1400 home subdivision in Hays County, over the Barton Springs segment of the aquifer.
- ➤ Given that karst features beneath irrigation areas cannot be completely identified, mapped or defined in recharge areas, TLAPs over the recharge zone for the Edwards Aquifer should be prohibited. The thin soils, karst topography, and sensitive water bodies in the recharge zone are not suitable for disposing of large volumes of wastewater.

Dr. Ross's report provides a list of specific recommendations to address the growing problems from TLAPS in the contributing zone. First and foremost is the need to revise existing TCEQ regulations to provide for consistent, enforceable, and protective permit standards that will ensure that TLAPs operate as intended—with "no discharge" of pollutants to surface streams and aquifers.

"With better regulation of wastewater irrigation facilities we can protect the Edwards Aquifer and our Hill Country streams while assuring responsible reuse of wastewater," said Bill Bunch, Executive Director of Save Our Springs Alliance. "This treated wastewater is a resource, especially during times of drought, but must be carefully managed."

Annalisa Peace, Executive Director of the Greater Edwards Aquifer Alliance, added: "As the population of central Texas increases, the issue of sewage disposal over the Edwards Aquifer recharge and contributing zones is one that we cannot afford to ignore."

Funding for the research was provided by the Cynthia and George Mitchell Foundation.

<u>For a copy of the report, click here</u>. To learn more about the Save Our Springs Alliance and the Greater Edwards Aquifer Alliance, go to <u>www.sosalliance.org</u> or <u>www.aquiferalliance.org</u>