GEAA Statement: TCEQ Edwards Rules November 18,2010

Thank you for the opportunity to comment on the TCEQ Edwards Aquifer Protection Program.

The Greater Edwards Aquifer Alliance (GEAA) is composed of 45 member organizations united behind a comprehensive plan to protect the Edwards Aquifer, its springs and watersheds, and the Texas Hill Country. In 2005, GEAA submitted comments on the Edwards Aquifer Protection Program along with 34 other organizations from across the Edwards region, including community, environmental and religious groups, planners, professional engineers, and elected officials. The memberships of these organizations represent a large segment of the population that relies on the Edwards Aquifer for their potable water supply, and a broad consensus on how to best protect the aquifer.

We first ask that each member group of our Alliance, all of which have endorsed these recommendations, be listed individually as submitting these comments. Please do not list them collectively as the Greater Edwards Aquifer Alliance. Provided here is a list of the member groups that belong to GEAA for inclusion as supporting these comments.

We ask, on behalf of the 45 member organizations of the Greater Edwards Aquifer Alliance and those who joined us in submitting recommendations to the Edwards Rules in 2005, that you not only read these recommendations. We ask that you act on them. Immediate action must be taken before further degradation of the Edwards Aquifer and its ecosystem occurs.

We will be submitting written comments, to include our 2005 comments and analysis for your consideration and action. Also included will be the 1997 paper "Protecting the Edwards Aquifer, A Scientific Consensus," which has been endorsed by several leading authorities on the Edwards Aquifer, including 39 scientists, engineers, and planners. We ask that you consider and act on this scientific consensus, and the recommended measures embodied therein, as you go about amending the Edwards Rules.

As detailed in our 2005 comments and supported by the Scientific Consensus paper, our recommendations include requiring adequate buffer zones to protect streams, springs and recharge features, limits to impervious cover on the Edwards Recharge and Contributing zones, expanding the pollution reduction standards to include toxic metals, organic chemicals and nutrients, and other measures and strategies that we believe will protect our water quality. We also ask that TCEQ provide adequate funding for trained and experienced staff, and that monitoring and enforcement of the Edwards rules, where appropriate, be delegated to local agencies that are better equipped to handle these duties.

The Optional Water Quality Measures (appendices A and B of RG-348, EAPP Technical Guidance Manual) are not adequate to protect Endangered Species and allow

unnecessary pollution of the Edwards Aquifer. The optional measures, among other deficiencies, fail to limit impervious cover, only monitor for one constituent (Total Suspended Solids), allow for increases in pollutant loads from developed properties, and allow for sealing of sensitive features rather than preservation and setbacks.

There is widespread scientific consensus that limiting impervious cover in both the recharge and contributing zones is necessary to maintain water quality in the Edwards Aquifer.[1] Scientists agree that engineered controls, even when perfectly maintained, cannot replace impervious cover limits. TCEQ should recognize this sound science by implementing impervious cover limits of no more than 10% in the recharge zone and 15% in the contributing zone.

Where engineered water quality controls are used these should be inspected frequently with significant fines assessed for malfunctioning facilities. In general, the penalties for violations of the Edwards Rules seem low in relation to the severity of the violations and should be increased to act as a preventative deterrent.

We have seen frequent examples of inadequate erosion and sedimentation construction controls causing significant pollution events. Off-channel ponds, rock gabions in addition to silt fences, and appropriately limited phasing of clearing and grading all need to be required and strictly enforced to protect the aquifer from construction runoff. Construction staging should also be minimized to allow for immediate revegetation and minimization of pollution risks. These requirements should all be strictly monitored and violations assessed significant penalties to act as a deterrent to non-compliance.

In addition to pollution from construction and urban runoff, sewage and wastewater effluent are among the primary pollutants of the Edwards Aquifer. Many of the sewage plants in the region use irrigation/land application for wastewater effluent disposal. The Edwards rules should be strengthened to include specific requirements for wastewater treatment, storage, and irrigation in the following ways:

- Increase storage required for subsurface irrigation systems to be equivalent to what is currently required for surface irrigation systems.
- Require effluent monitoring for total nitrogen and phosphorous
- Require automatic shut-off soil moisture monitoring using tensiometers
- Baseline sampling of adjacent creeks and quarterly sampling after rainfall during irrigation.
- Measure buffers from creek beds rather than stream center to ensure adequate creek protection as stream beds wash out from development.
- Adopt stricter standards for lift stations, similar to City of Austin standards.

Recently, new permits for direct discharges of effluent have been approved in the Edwards Contributing Zone, both in the Barton Springs segment of the Edwards and the

[1] See *Protecting the Edwards Aquifer: A Scientific Consensus*, signed by 39 scientists, planners, and engineers in 1997, also available at http://www.aquiferalliance.org.

San Antonio segment. Effluent discharges pose a risk to human health by introducing anthropogenic pharmaceuticals and other unmonitored chemicals into potable water supplies. Sensitive surface waters within the Contributing Zone cannot withstand the reductions in dissolved oxygen and increases in algae producing constituents that are caused by effluent discharge.

There is widespread scientific consensus, and governmental support for, prohibiting wastewater discharges into the Edwards Aquifer in order to prevent degradation. TCEQ should amend the Edwards rules to prohibit any direct discharges of effluent in the Contributing and Transition Zones of the Edwards Aquifer.

TCEQ should also consider incorporating Edwards-specific rules for quarries and rock crushers in the Recharge and Contributing Zones. Where these facilities are located in Edwards Limestone, the underlying aquifer is particularly vulnerable to contamination, whether or not the quarry actually excavates to below the aquifer water level. Without more stringent TCEQ regulations, quarries and rock crushers will continue to degrade the aquifer and damage the health and water supply of adjacent communities.

We are aware that TCEQ staff is under special pressure to process Water Pollution Abatement Plans for approval within 60 days rather than the 90 day period provided for in the Edwards Rules. If anything, the rules should increase the 90 day period to provide for more comprehensive review of WPAPs.

Again, attached to this letter is a copy of our 2005 comments and the Scientific Consensus paper. The Greater Edwards Aquifer Alliance and the many groups who join us ask that you act now to adopt these recommendations into the TCEQ Edwards Rules.

Thank you for your consideration.