



October 14, 2009

Ms. April Hoh  
Texas Commission on Environmental Quality (TCEQ)  
MC 150  
PO Box 13087  
Austin, TX 78711-3087

Re: Draft rule for the proposed Barton Creek and Onion Creek Water Quality Areas under 30 TAC Chapter 311

Dear Ms. Hoh,

LCRA appreciates TCEQ's efforts to pursue rulemaking to develop more stringent requirements for discharges of wastewater to the contributing zone of the Edwards Aquifer within the Barton and Onion Creek Watershed. LCRA as an invited participant in the stakeholder process offers the following comments on the proposed draft rule.

#### BACKGROUND

In our comment letter submitted to TCEQ on May 5, 2009, LCRA states that we are supportive of efforts to limit wastewater discharges in these watersheds until such time that scientific modeling and treatment with consistently achievable technology can ensure that there will be no adverse impacts to Barton and Onion Creeks and their tributaries. At the stakeholder meeting held at TCEQ on September 30, 2009 to discuss the proposed rule language, TCEQ staff stated that additional modeling with these proposed effluent limits has not been performed and was not included as a basis for the proposed limits. TCEQ staff stated that the proposed limits were based on technologically achievable treatment, with some consideration of ambient instream background conditions and stormflow data.

The draft rule language proposes effluent limits of 5 mg/L carbonaceous biochemical oxygen demand, 5 mg/L total suspended solids, 2 mg/L ammonia-nitrogen, 0.1 mg/L total phosphorus, and 6 mg/L total nitrogen for continuous discharges in the proposed Water Quality Areas. The proposed rule allows for variances to these limits at the discretion of the Executive Director in which concentrations may be increased for effluent used in other applications such as beneficial re-use or intermittent discharges; or may be made more stringent based on factors such as site-specific streamflow conditions.

As demonstrated by the presentation of scientific information and discussions held at the stakeholder meetings, there is an overwhelming interest by jurisdictional agencies including the City of Austin, Barton Springs/Edwards Aquifer Conservation District (BSEACD), Hays County, and LCRA to ensure protection of these sensitive water quality watersheds. Not only are Barton and Onion Creeks tributaries to the Colorado, these streams recharge the Barton Springs segment of the Edwards Aquifer providing drinking water for residents, and flow to Barton Springs providing habitat for the endangered Barton Springs salamander. These streams are currently minimally impacted by wastewater discharges and have very little assimilative capacity for nutrients. Existing

studies consistently show instream background concentrations as low as 0.003 mg/L phosphorus and 0.12 mg/L nitrogen<sup>1, 2</sup>.

During the stakeholder process, two opinions were submitted stating that wastewater discharges should be allowed in these areas. However, these opinions contained no scientific information supporting or demonstrating any proposed effluent limits that would be protective of the receiving streams of the Water Quality Areas.

#### DATA AND SCIENTIFIC INFORMATION NEEDED TO SUPPORT ANY DISCHARGE IN PROPOSED WATER QUALITY AREAS

LCRA does not oppose all discharges. However LCRA has consistently stated that any and all discharges into sensitive areas should be supported by scientific data that demonstrates the discharge will not adversely impact the water quality in the receiving stream or water body.

A United States Geological Survey (USGS) study is currently underway in response to a lengthy contested case hearing process in which a Water Quality permit was recently issued for the Hays County Water Control and Improvement District No. 1 (Belterra) in the Onion Creek Water Quality Area. The permit was issued with similar effluent limits to those proposed in the draft rule. The limits in the Belterra permit were included in a Settlement Agreement between Belterra and several protesting parties and incorporated into the TCEQ Water Quality permit. This Settlement Agreement with the protesting parties including the BSEACD, City of Dripping Springs and LCRA provides for a discharge under very limited conditions with strict levels for phosphorous (0.15 mg/L) and total nitrogen (6 mg/L). These treatment levels were agreed upon as a compromise for this specific permit based on current available technology and existing regulatory provisions and may not adequately address potential impacts to the current receiving stream conditions.

The Belterra permit contains provisions for discharge only under set streamflow conditions. This permit and the Settlement Agreement also require extensive instream monitoring with triggers to further limit discharges and institute mitigation actions if adverse impacts to water quality are observed. To date, these discharges have not commenced and effluent limits proposed in the permit that was issued (and those contained in the proposed draft rule) have not been tested in receiving streams in these watersheds to establish whether the expected level of protection will be achieved.

While LCRA appreciates the stringent phosphorus requirement of 0.1 mg/L in the suggested effluent limits of the proposed rule, this limit is orders of magnitude higher than the ambient instream conditions. It is higher than the level at which degradation can be expected to occur as shown in available studies, including the most recent study commissioned in part by TCEQ specifically designed to help assess nutrients and determine impacts to water quality from nutrient inputs, such as point-source discharges.<sup>3</sup>

LCRA also appreciates the inclusion of a nitrogen limit in the proposed rule as a step forward in limiting nutrients in the receiving streams. However in stakeholder discussion, TCEQ staff explained the basis for the proposed nitrogen limit was based on the drinking water standard of 10 mg/L in efforts to meet drinking water supply uses. The proposed limit of 6 mg/L is orders of magnitude higher than the instream ambient concentrations.

Based on studies and modeling presented in the stakeholder process, continuous wastewater discharges with effluent concentrations of 6 mg/L will result in degradation of the receiving streams.<sup>1</sup>

To date, it is unclear how the Belterra permit will impact water quality in the receiving streams and how those streams will respond to added nutrient loading from this single permit. Additional concern for potential impacts to water quality from multiple and continuous discharges into intermittent streams is not addressed in the proposed rule. Multiple or continuous discharges that may be allowed by the proposed rule could result in effluent-based flows with nutrient enrichment and degradation of these waters which recharge the Edwards Aquifer.

### SUMMARY OF CONCERNS

1. Antidegradation: How will degradation be determined and what methodology will be used to determine what “the desired water quality” should be?
  2. Provisions for Variances: What specific criteria and methodology will be used to determine variances to the proposed limits? LCRA suggests that for a variation to be considered, the owner, or professional engineer representing the owner, demonstrates that variance conditions are such that equivalent or greater protection of the public health and the environment can be provided by alternate means; and any request for a variance under this Chapter must contain planning materials prepared by a professional engineer with appropriate seal, date, and signature.
  3. Assessment and Protection of Current Stream Standards/Instream Conditions: Will instream monitoring be required and if so, who will be the responsible party for ongoing instream monitoring and assessment? The proposed rule does not contain provisions for ongoing assessment or provisions to ensure protection for current instream conditions, not only for the constituents in the proposed effluent limits, but also for other constituents such as chlorides, sulfates, and suspended solids.
  4. Land Application and Re-use Provisions: How will provisions for the other methods of disposal in the proposed Water Quality Areas be addressed or referenced in this rule? Land application and beneficial re-use is supported by the majority of the stakeholders. However, due to the sensitive nature of the geology and topography of these areas, wastewater disposal in these areas requires careful consideration of underlying conditions of effluent disposal sites.
  5. Wastewater Operator Requirements: Due to expected complexity of operating requirements for types of facilities that could treat to the anticipated levels necessary to protect water quality and/or alternate between discharge and land application processes, as in the Belterra Settlement Agreement, LCRA recommends “A” level licensed wastewater operators be required to oversee operations at facilities within these watersheds.
  6. Emerging Contaminants: Emerging contaminants and unknown impacts to receiving streams from wastewater discharges containing pharmaceuticals and personal care products were discussed as a concern in the stakeholder process but are not addressed
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by the proposed draft rule. Should future science and technology result in recommendations for treatment and/or removal of emerging contaminants, any permits granted under this rule should be subject to revisions to include recommended treatment.

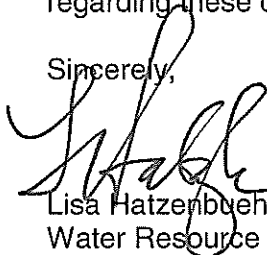
7. Geographic Description of Proposed Water Quality Areas and Chapter 213 Rules: The geographic description of the proposed Water Quality Areas is vague with limited reference to the existing geographic area and regulations of the Edwards Aquifer rules under Chapter 213 of the Texas Administrative Code (30 TAC Chapter 213). Reference should be made or clearly stated that direct wastewater discharges are prohibited in the Recharge Zone of the Barton Springs segment of the Edwards Aquifer.

### RECOMMENDATION

LCRA respectfully requests postponement of rulemaking until a technical advisory group comprised of experts from USGS, TCEQ, BSEACD, LCRA, and the City of Austin can construct a rule that includes effluent limits that are scientifically based to maintain current and desired instream conditions. Scientific evidence should include the most recent, viable, proven information as it becomes available, including the current USGS study in progress and any monitoring results from the Belterra Settlement Agreement. Provisions should be included to ensure ongoing assessment and evaluation with revisions as necessary due to instream response to discharges and/or emerging treatment technology.

Thank you for your consideration of our comments. Should you have any questions regarding these comments please call me at (512) 473-4082.

Sincerely,



Lisa Hatzenbuehler, Manager  
Water Resource Protection

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<sup>1</sup> Mabe, J.A., 2007. Nutrient and biological conditions of selected small streams in the Edwards Plateau, Central Texas, 2005–06, and implications for development of nutrient criteria: U.S. Geological Survey Scientific Investigations Report 2007–5195, 46 p.

<sup>2</sup> Herrington, C. and Scoggins, M., 2006. Potential Impacts of Hays County WCID No. 1 Proposed Wastewater Discharge on the Algae Communities of Bear Creek and Barton Springs: SR-06-08

<sup>3</sup> King, R. , 2009. Linking Observational and Experimental Approaches for the Development of Regional Nutrient Criteria for Wadeable Streams: U. S. EPA Region 6 Section 104(b)(3) Water Quality Cooperative Agreement #CP-966137-01