## Response to Public Comment Three Total Maximum Daily Loads for Chloride, Sulfate, and Total Dissolved Solids in Petronila Creek Above Tidal (Segment Number 2204)

## October 31, 2006

| Tracking<br>Number | Date<br>Received    | Affiliation of Commentor  | Summary of Request or Comment   | Summary of TCEQ Action or Explanation  |
|--------------------|---------------------|---------------------------|---|--|
| 001                | 9/20/06<br>(letter) | Nueces River<br>Authority | Page 1 (Executive Summary): Kleberg is misspelled.  | Kleberg has been retyped to address misspelling.   |
| 002                | 9/20/06<br>(letter) | Nueces River<br>Authority | Page 6 (Description of the Watershed): Cayo del Mazon: is this the name of one of the upper arms of Alazan Bay? I can't find the name on any map. I suggest using Alazan Bay as the outlet for Petronila Creek, as was done on previously on page 3.  | Cayo del Mazon has been replaced with Alazan Bay.  |
| 003                | 9/20/06<br>(letter) | Nueces River<br>Authority | Page 10 (Water Quality Monitoring): Nueces River Authority (NRA) does not monitor at any sites on Segment 2204. This area is within the NRA's CRP area of responsibility, but TCEQ R14 handles this area. In Table 2, only 13094 is monitoring routinely by TCEQ. The other 7 sites were monitored specifically for this TMDL by EA, with a program code of TN.  In addition to 13084, routine monitoring on the streams in the northern portion of the Nueces – Rio Grande Coastal Basin consists of: NRA: 13028 – Oso Creek TCEQ: 13090 – Petronila Creek Tidal; and 13033 – San Fernando Creek | The sentence, "The NRA collects data from twelve fixed stations on a quarterly basis," has been removed. |

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| 004 | 9/20/06<br>(letter) | Nueces River<br>Authority         | Page 11 (Stream Flow and Weather Data): Using Oso Creek as a paired watershed to estimate stream flow in Petronila Creek probably give higher than actual numbers. While both creeks are at times effluent driven, Oso Creek receives much more discharge than Petronila Creek. Oso Creek (Segment 2485A) received a total discharge (from five permits) of 8,367 AF in 2004 and 8,783 AF in 2005. Petronila Creek Above Tidal received a total discharge (from seven permits) of 338 AF in 2004 and 289 AF in 2005.  Of the five permits discharging into Segment 2485A, four have discharge limits totaling 12,410 AF per year. The other permit is intermittent and flow variable.  Of the seven permits discharging into Segment 2204, six have discharge limits totaling 653 AF per year. The other permit is intermittent and flow variable.  The USGS gage on Oso Creek is below all but the largest discharger (City of Corpus Christi Greenwood WWTP). Removing its numbers from those sited above, the discharges in 2004 and 2005 become 2,286 AF and 2,302 AF, respectively. The permitted discharge above the gage is 3,449 AF per year. These numbers are still much higher than for Petronila Creek. | No changes have been made to the TMDL based on this comment. As stated on page 26 of the report, "An explicit margin of safety is more appropriate when there is some degree of uncertainty in input data and model results. In flow calibration, there was good agreement between observed and simulated stream flows. However, model validation shows less robust flow calibration results, though still within acceptable range. Flow was calibrated using a reference station (paired watershed) in Oso Creek which introduces additional uncertainty."  An explicit 5 % margin of safety was incorporated into the TMDL to account for this degree of uncertainty. Therefore, allocation scenarios will be designed to meet annual average sulfate, chloride, and TDS standards of 475, 1425, and 3800 mg/L, respectively, as compared to segment specific standards of 500, 1500, and 4000 mg/L. |
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| 005 | 9/20/06<br>(letter) | Nueces River<br>Authority         | Page 18 (Point Source Dischargers): Table 6 is missing WQ0002888-000, US Ecology of Texas. The permit limit is intermittent and flow variable.  | "with Permit Limits" has been added to the table title.  |
| 006 | 9/20/06<br>(letter) | Nueces River<br>Authority         | Page 27 (Wasteload Allocation): There are <i>seven</i> point source dischargers, six with permit limits.  | "permit limits" has been added to the paragraph preceding Table 6.   |
| 007 | 10/9/06<br>(letter) | Continental<br>Resources,<br>Inc. | Page 18 (Produced Water): There is a statement that "The production of oil is always accompanied by the production of brine". I am not sure that this statement is correct. It may be better to state that "The production of oil is <b>usually</b> accompanied by the production of brine".  | As suggested the statement was revised. The word "always' was replaced with the word "usually".  |

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| 008 | 10/9/06<br>(letter) | Continental<br>Resources,<br>Inc. | I object to the statement later in the same section that states "Many of these abandoned wells typically have cracks and leaks that may eventually allow brine to reach and contaminate ground water and surface water (Paine et al, 2005)." I believe that in reading this sentence one would come away with the impression that most abandoned wells leak to the surface. I do not believe that this statement is correct and do not believe that sufficient documentation has been provided in the TMDL or in the cited resource to include this statement in the TMDL. I would recommend that the sentence be replaced with "Some of these abandoned wells occasionally have cracks and leaks that may eventually allow brine to reach and contaminate ground water and surface water (Paine et al 2005)." | As suggested the statement was revised. The word "typically" was removed and the sentence was revised to state that "Some of these abandoned wells occasionally have cracks and leaks" |
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| 009 | 10/9/06<br>(letter) | Continental<br>Resources,<br>Inc. | Pages 21 through 25: The units of loading are provided as "kg/day". Later in the document, in Table 7 of the "Load Allocation" section on Page 28, the units are provided in "lbs/day". I believe the document would be easier to understand and interpret if consistent units were used throughout the document.  | Units of loading have been converted from kg/day to lbs/day to be consistent throughout the document.  |

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