September 27, 2010

Texas Water Development
1700 N. Congress Ave.
P.O. Box 13231
Austin, TX 78711-3231

To Whom It May Concern:

The Chair approves the changes to the final 2011 Plateau Region Water Plan as documented in the attached Errata Sheet and Attachment B Spreadsheet.

Sincerely,

[Signature]

Jonathan Letz
PWPG Chair
Plateau Region Water Plan

ERRATA SHEET
(The following revisions are incorporated in this printed copy of the 2011 Plan)

Executive Summary
The second sentence of the third paragraph on page ES-2 is revised as follows:
The greatest percentage increase in population is projected to occur in Bandera County, which is expected to grow from a projected year-2010 population of 26,373 to 60,346 by the year 2060, an increase of 229 129 percent.

The first sentence on page ES-6 is revised as follows:
Bandera County, with the greatest projected percentage population increase, will likewise see the greatest percentage municipal water demand increase over the 50-year period, 213 113 percent.

In the last sentence on page ES-13, the total capital cost to implement the recommended strategies is changed from $51,248,379 to $54,792,390.

Chapter 1
The following subsection is added at the end of Section 1.5:

1.5.5 Hill Country Priority Groundwater Management Area
A portion of the Plateau Region (Bandera and Kerr Counties) is included in the initial Hill Country Priority Groundwater Management Area. The Priority Groundwater Management Area (PGMA) process is initiated by the TCEQ, who designates a PGMA when an area is experiencing critical groundwater problems, or is expected to do so within 25 years. These problems include shortages of surface water or groundwater, land subsidence resulting from groundwater withdrawal, or contamination of groundwater supplies. Once an area is designated a PGMA, landowners have two years to create a Groundwater Conservation District (GCD). Otherwise, the TCEQ is required to create a GCD or to recommend that the area be added to an existing district. The TWDB works with the TCEQ to produce a legislative report every two years on the status of PGMAs in the state. The PGMA process is completely independent of the current Groundwater Management Area (GMA) process and each process has different goals. The goal of the PGMA process is to establish GCDs in these designated areas so that there will be a regulating entity to address the identified groundwater issues. PGMAs are still relevant as long as there remain portions within these designated areas without GCDs. The Plateau Region's portion of the Hill Country PGMA (Bandera & Kerr Counties) has GCDs established now; however, the Comal County portion of the Hill Country PGMA (located in Region L) still does not have a GCD and therefore, this PGMA is currently active and relevant. A statewide map of the declared PGMA areas is available at:
Chapter 2
Table 2-1 Population:
Kerrville South WC is deleted from the Table and its population is added to County Other as follows:

<table>
<thead>
<tr>
<th>Kerr</th>
<th>County Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>24,243</td>
<td>27,017</td>
</tr>
</tbody>
</table>

Table 2-2 Water Demand:
Kerrville South WC is deleted from the Table and its water demand is added to County Other as follows:

<table>
<thead>
<tr>
<th>Kerr</th>
<th>County Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,727</td>
<td>2,947</td>
</tr>
</tbody>
</table>

Appendix Table 2A Water Demand Projections:
- Bandera County, Irrigation, Guadalupe Basin line is removed from the Table.
- The following revision is made in the distribution of water demand by basins for Edwards County irrigation:

<table>
<thead>
<tr>
<th>Edwards County</th>
<th>Irrigation</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
<th>2060</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>43</td>
<td>44</td>
<td>39</td>
<td>38</td>
<td>36</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Nueces</td>
<td>87</td>
<td>84</td>
<td>81</td>
<td>77</td>
<td>74</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Rio Grande</td>
<td>23</td>
<td>22</td>
<td>21</td>
<td>20</td>
<td>19</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

- Kerr County, Kerrville South WSC is deleted from the Table and its water demand is added to County-Other, Guadalupe Basin as follows:

<table>
<thead>
<tr>
<th>Kerr County</th>
<th>County-Other</th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
<th>2060</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>58</td>
<td>62</td>
<td>63</td>
<td>60</td>
<td>56</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>Guadalupe</td>
<td>2,651</td>
<td>2,866</td>
<td>2,917</td>
<td>2,918</td>
<td>3,025</td>
<td>3,087</td>
<td></td>
</tr>
<tr>
<td>San Antonio</td>
<td>18</td>
<td>19</td>
<td>19</td>
<td>18</td>
<td>17</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

The first sentence of the fourth paragraph of Section 2.3.2 on page 2-4 is revised as follows:
*The greatest percentage increase in population is projected to occur in Bandera County, which is expected to grow from a projected year-2010 population of 26,373 to 60,346 by the year 2060, an increase of 229.129 percent.*
The last sentence of the third paragraph of Section 2.4.1 on page 2-12 is revised as follows:

*Bandera County, with the greatest projected percentage population increase, will likewise see the greatest percentage municipal water demand increase over the 50-year period, 243 113 percent.*

**Chapter 3**

The following sentence is added at the end of the first paragraph of Section 3.2.9 on page 3-19:

*Kerrville South, which appeared as a municipal water user entity in the 2006 Plateau Region Water Plan, has been purchased by Aqua Texas and is now included in the County Other group category.*

Table 3-1 Source Availability:
- Val Verde County, Devils River, Rio Grande Basin line is removed from the Table.
- Val Verde County, Pecos River, Rio Grande Basin line is removed from the Table.

Table 3-2 Existing Supplies:
- Bandera County, Irrigation, Guadalupe Basin, Upper Guadalupe River line is removed from the Table.
- "Other Aquifer (Nueces Alluvium)" with a supply of 34 acre-feet/year is added to Edwards County / County Other / Nueces Basin. This change will also be addressed in the TWDB DB12 database.
- In Val Verde County, the source of water shown to be purchased or supplied from Del Rio is from the Edwards-Trinity (Plateau) Aquifer is as follows:

<table>
<thead>
<tr>
<th>Source</th>
<th>Water Source</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laughlin AFB</td>
<td>Rio Grande</td>
<td>Edwards-Trinity (Plateau) (Purchased from Del Rio)</td>
</tr>
<tr>
<td>County Other</td>
<td>Rio Grande</td>
<td>Edwards-Trinity (Plateau) (Supplied from Del Rio)</td>
</tr>
</tbody>
</table>

Table 3-3 Wholesale Water Provider Existing Supplies:
A supply source column is added to the table as follows:

<table>
<thead>
<tr>
<th>Source</th>
<th>Water Source</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Del Rio</td>
<td>San Felipe Springs</td>
<td>7,461</td>
</tr>
<tr>
<td></td>
<td>Edwards-Trinity (Plateau)</td>
<td>9,116</td>
</tr>
<tr>
<td>Laughlin AFB</td>
<td>Edwards-Trinity (Plateau)</td>
<td>2,178</td>
</tr>
<tr>
<td>County Other</td>
<td>Edwards-Trinity (Plateau)</td>
<td>1,631</td>
</tr>
</tbody>
</table>
Chapter 4
Table 4-1 Needs Analysis:

- Bandera County, Irrigation, Guadalupe Basin line is removed from the Table.
- The supply and net difference by decade for Edwards County / County Other / Nueces Basin is revised as follows:

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
<th>2060</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>445</td>
<td>445</td>
<td>445</td>
<td>445</td>
<td>445</td>
<td>445</td>
</tr>
<tr>
<td>D</td>
<td>118</td>
<td>121</td>
<td>116</td>
<td>111</td>
<td>108</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>327</td>
<td>324</td>
<td>329</td>
<td>334</td>
<td>337</td>
<td>341</td>
</tr>
</tbody>
</table>

Table 4-3 List of Recommended Water Management Strategies:
- Total capital cost for the UGRA / Strategy J-12 is changed from $393,779 to $3,937,790.
- Strategy supply for the City of Leakey / Strategy J-15 is changed from 17 to 205 ac-ft/yr for all decades.
- Strategy supply for the City of Camp Wood / Strategy J-17 is changed from 178 to 172 ac-ft/yr for all decades.
- The following footnote is added to the table:
  *Capital costs are estimated based on September 2008 US dollars.*
- Footnote "e" is removed from the end of the strategy name for Strategies J-1, J-7 and J-10.
- Footnote "e" is revised to read "Strategy is not intended to meet a need during a drought-of-record condition as identified in Table 4-1."

Table 4-4 Recommended Water Management Strategy Costs:
- O&M cost for the City of Kerrville / Strategy J-6 is $3,840,000 for decades 2030 through 2050 and $5,450,000 for the 2060 decade.
- Cost per acre-foot/year for the City of Kerrville / Strategy J-6 is $1,000 for decades 2030 through 2060.
- Total capital cost for the UGRA / Strategy J-12 is changed from $393,779 to $3,937,790.
- O&M cost for the UGRA / Strategy J-12 is changed from $0 to $150,000 per year for all decades.
- Cost per acre-foot/year for the UGRA / Strategy J-12 is changed from $0 to $14 for all decades.
- Cost per acre-foot/year for the City of Leakey / Strategy J-15 is changed from $53 to $4 for all decades.
- The last footnote is revised from 30 years to 20 years.
- The following footnote is added to the table:
  *Capital costs are estimated based on September 2008 US dollars.*
The following paragraph is added at the end of subsection 4.4.1 Bandera WMS J-1:
Water supply generated from this strategy will provide an additional source of supply that will hopefully allow the City to decrease its sole dependence on the Trinity Aquifer. Treated Medina River water is injected into the aquifer during non-drought conditions when surface water is plentiful and is retrieved at a later time as a supply source during drought-of-record conditions when surface water is scarce.

The last sentence of the second paragraph of subsection 4.6.1 (UGRA WMS J-6) is revised and additional text is added as follows:
Up to 3,840 acre-ft/yr is needed by the year 2030 and an additional 1,610 acre-ft/yr (5,450 acre-ft/yr) in 2060 for a total of 116,810 acre-feet over the 30-year period. An estimated purchase price of $1,000 per acre-foot is assumed for this planning process; however the City will negotiate an actual price when and if this strategy is implemented in the future.

The following text is added to the end of the third paragraph of subsection 4.6.1 UGRA WMS J-6:
Thus, this strategy could be of some assistance if needed in the early stages of a drought-of-record, but could not be used to meet needs in an extended drought period. However, Kerrville’s future needs can be met by implementing Strategies J-7, J-8 and J-9.

The following text is added to the end of the third paragraph of subsection 4.6.2 Kerrville WMS J-7:
Treated Guadalupe River water is injected into the aquifer during non-drought conditions when surface water is plentiful and is retrieved at a later time as a supply source during drought-of-record conditions when surface water is scarce.

The following text is added to the end of the fourth paragraph of subsection 4.7.1 UGRA WMS J-10:
Treated Guadalupe River water is injected into the aquifer during non-drought conditions when surface water is plentiful and is retrieved at a later time as a supply source during drought-of-record conditions when surface water is scarce.

The following text is added at the end of subsection 4.7.2 UGRA WMS J-11:
Although UGRA is not projected to have future water supply shortages, the water that is captured can be added to the ASR supply and later retrieved for use in serving unexpected peak demands and drought-of-record needs.
The following text is added to paragraph seven in subsection 4.7.3 *UGRA WMS J-12:*
Clearing 15,000 acres will yield approximately 10,500 acre-feet of water per year (based on results from Kerr WMA; Thurow, T.L. and J.W. Hester. 1997. *How an Increase or Reduction in Juniper Cover Alters Rangeland Hydrology.* Ecology and Management Symposium 1997, Texas A&M University) or about 3,423,000,000 gallons of water per year and can potentially increase the base flow of the river by about 14.4 cubic feet per second.

The following map is added as Figure 4-2 after the second paragraph in subsection 4.7.3 *UGRA WMS J-12:*

![Map of Plateau Region Water Plan](image)

The following text is added to the last paragraph in subsection 4.7.3 *UGRA WMS J-12:*

Cooperating landowners are responsible for the continued maintenance of cleared land beyond the 5-year project horizon. At $100 per acre per decade, the estimated cost for continued maintenance of the cleared 15,000 acres is $150,000 per year.
The following subsection is added at the end of Section 4.11 on page 4-41:

4.11.4 Regional Facility Planning

Utilizing a TWDB EDAP grant, the Upper Guadalupe River Authority (UGRA) and the Kerr County Commissioners' Court are evaluating ways in which water supply and wastewater treatment can be made available from regional facilities that will service the Community of Center Point and much of the unincorporated portion of eastern Kerr County. A surface water treatment facility will provide drinking water to customers currently served by several privately owned water systems. The construction of a new wastewater collection system will provide first-time service to many citizens and may potentially include a gravity interceptor to connect the system to the Kendall County WCID#1 wastewater treatment plant downstream in the town of Comfort.

Another example of regional cooperation can be seen in a March 2008 MOU executed with the UGRA, City of Kerrville, City of Ingram, Kerr County Commissioners' Court, and the Headwaters Groundwater Conservation District in which the parties agreed to cooperate in good faith for purposes of facilitating range and land management practices that will improve and maintain surface water and groundwater quality and/or availability.

Chapter 10

Additional responses to TWDB IPP review comments (Attachment 10C) as they relate to the Plan's coordination with the TWDB DB12 planning database are provided in the form of a spreadsheet.

This Errata Sheet is added to the end of Attachment 10C. These revisions are incorporated in this printed copy of the 2011 Plan.
<table>
<thead>
<tr>
<th>Item</th>
<th>IPP document reference:</th>
<th>IPP document number</th>
<th>Non-matching numbers</th>
<th>Online Planning Database (DB12) number</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plateau Region (J)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>