Attachment D

Summarized Methodologies for Water Demand Projections for

the 2016 Regional Water Plans

Introduction: For the development of the 2016 Regional Water Plans, water demands will be projected through the year 2070 for the six sectors of water use. A brief summary of the projection methodologies are provided below.

***Municipal:** Draft municipal water demand projections will be a function of projected population for the municipal water user group and projected per-capita water use (Gallons Per Capita Daily). The projected GPCD values will be derived from historical annual water use in 2006 or 2009 to represent "dry-year" conditions and will incorporate anticipated plumbing code savings.

***County-Other:** Draft municipal water demand projections for the County-Other municipal water user groups will be developed similar to projections for cities and non-city utilities. The per-capita water demand figure will be derived from county-specific figures or statewide average per-capita water use figures for rural water systems, depending upon data availability, for 2006 or 2009.

Mining: Draft demands are being developed through a TWDB-contracted study with the Bureau of Economic Geology. The draft of this report is currently under review and available for public comment through May 31, 2011.

Manufacturing: Draft manufacturing water demand projections will be developed through the use of economic projections of industry-specific output, output-water use coefficients and historical trends of water use by specific sectors in each county.

Steam-Electric Generation: Draft steam-electric power generation water demand projections will be based upon projections in the 2011 regional water plans and the 2008 TWDB report Water Demand Projections for Power Generation in Texas. Regions may offer adjustment suggestions in light of more recent market forces.

Irrigation: Draft irrigation water demand projections will utilize TWDB's 2009 irrigation water use estimates as a base. The rate of change for irrigation projections from the 2011 regional water plans will then be applied to the new base. The Regions will also be given the opportunity to request adjustments to the base for each county.

Livestock: Draft livestock water demand projections will utilize TWDB's 2009 livestock water use estimates as a base. The rate of change for livestock projections from the 2011 regional water plans will then be applied to the new base; many counties chose to hold the base constant throughout the planning horizon. The Regions will also be given the opportunity to request adjustments to the base for each county.

*See Page 2: Population Projections Discussion

Population Projections for the 2016 Regional Water Plans

- 1. 2010 U.S. Census Conducted
- 2. U.S. Census releases 2010 County-level populations
- 3. Texas State Data Center (State Demographer) develops County-level projections through the year 2070 (including migration rates)
- 4. TWDB (with TCEQ, TPWD, and TDA) develops draft Water User Group (WUG)level projections for preview by RWPGs
- 5. Draft WUG projections delivered to RWPGs for consideration
- 6. RWPG requests adjustments
- 7. Final draft projections reviewed by TWDB, TCEQ, TPWD, and TDA.
- 8. TWDB adopts population projections