

Section 5
Impacts of Water Management Strategies
on Key Parameters of Water Quality [31 TAC § 357.7(a)12]
and Impacts of Moving Water from Rural and Agricultural Areas
[31 TAC § 357.7(a)8(G)]

The new guidelines for 2006 Regional Water Plans include describing major impacts of recommended water management strategies on key parameters of water quality identified by the regional water planning group and consideration of third party social and economic impacts associated with voluntary redistribution of water from rural and agricultural areas.

5.1 Impacts of Water Management Strategies on Key Parameters of Water Quality

In January 2005, the Coastal Bend Region identified key parameters of water quality to consider for water management strategies. The selection of key water quality parameters is based on current water quality concerns identified in the Nueces River Authority's Basin Highlights Report, water user concerns expressed during Regional Water Planning Group meetings, and water quality studies conducted for water management strategies included in the 2001 Plan and other regional studies. The Coastal Bend Region identified water quality parameters for six water management strategies, as shown in Figures 5-1 and 5-2.

The major impacts of recommended water management strategies on these key parameters of water quality are described in greater detail in the respective water management strategy summary (Section 4C). These identified water quality concerns present challenges that may need to be overcome before the water management strategy can be used as a water supply. For water quality parameters that cannot be fully addressed due to lack of available information or inconclusive water quality studies, the water management summary write-ups include recommendations for further studies prior to implementing as a water management strategy.

5.2 Voluntary Redistribution of Water and Impacts of Moving Water from Rural and Agricultural Areas

Several opportunities for voluntary redistribution exist for the Coastal Bend Region, including: (1) reallocating surface water through utilization of unused supply and sales of existing water rights, (2) trading and transferring surface water rights with the South Central

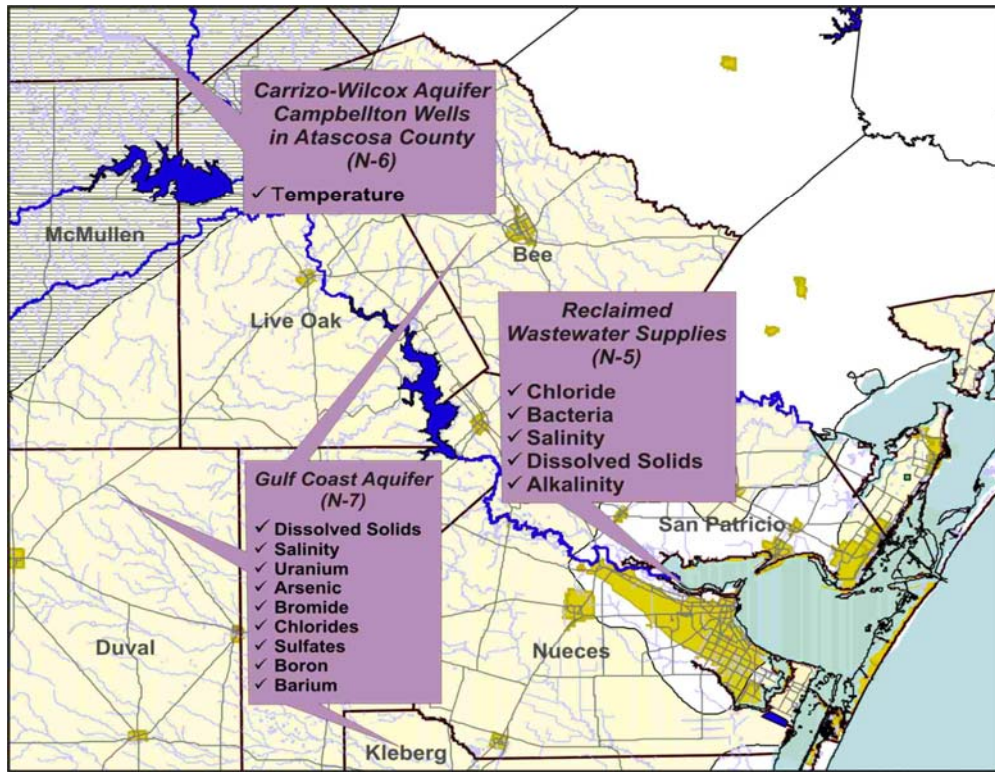


Figure 5-1. Water Quality Parameters to Consider for Water Management Strategies

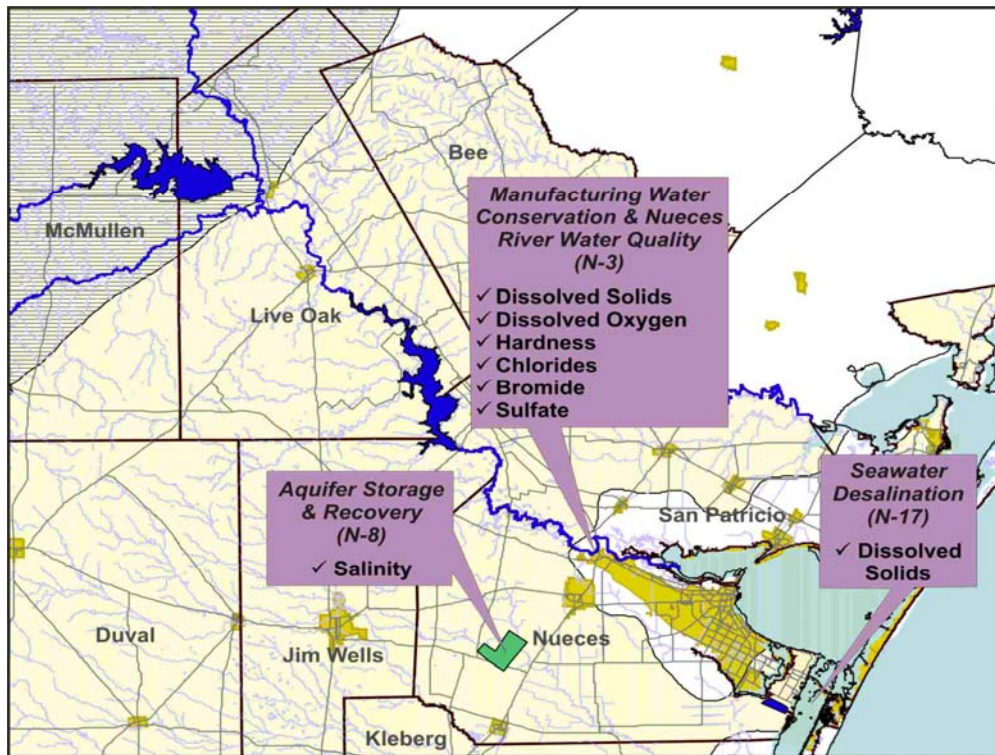


Figure 5-2. Water Quality Parameters to Consider for Water Management Strategies

Texas Region (Region L), and (3) regional water supply opportunities associated with projects included in the U.S. Army Corps of Engineers (USACOE) Nueces Feasibility Study.

Reallocation of unutilized surface water supply was recommended to meet both near-term and long-term shortages for Live Oak-Manufacturing and River Acres WSC. The 2006 Plan recommends the City of Three Rivers provide additional water to meet water needs for Live Oak-Manufacturing. The City of Three Rivers currently provides water to manufacturing users in Live Oak County and would likely require an a contract modification to increase water supplied from City of Three Rivers. Similarly, Nueces County WCID #3 currently provides water to River Acres WSC. Nueces County WCID #3 has unutilized surface water supply that could be provided to River Acres WSC to meet their needs and would likely require a contract modification. The impacts of voluntary redistribution of un-utilized surface water supply are expected to have minimal or no impacts on third party users or rural and agricultural areas.

The South Central Texas Regional Water Plan considers a pipeline from Choke Canyon Reservoir to provide water to the South Central Texas Region in exchange for a desalination facility near the City of Corpus Christi. This water management strategy is not expected to be recommended in the 2006 South Central Texas Regional Water Plan.

The Corps of Engineers is currently studying six projects as part of the Nueces River Basin Feasibility Study: recharge enhancement on the Upper Nueces; brush management; desalination; wastewater diversion to Nueces Delta; Cotulla Diversion Project; and CCR/LCC Pipeline with off-channel storage. The Feasibility Study will evaluate opportunities for flood mitigation, ecosystem restoration, water quality enhancements, and water supply benefits. The third party social and economic impacts resulting from voluntary redistribution will be considered in the Feasibility Study.

The water management strategies recommended to meet water needs (Section 4B) do not include transferring water needed by rural and agricultural users and, therefore, are not considered to impact them. As discussed above, voluntary redistributions of unutilized surface water supplies for some rural and agricultural users are recommended and included in Section 4B – Water Supply Plans.

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