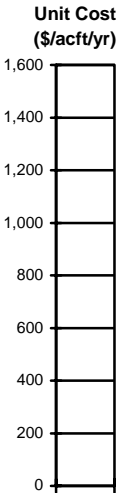
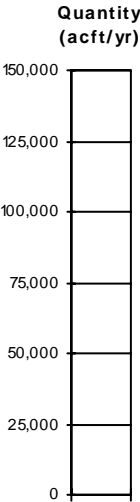
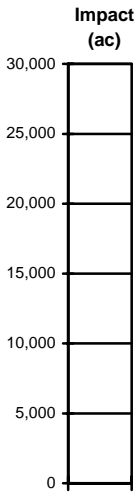


2006 South Central Texas Regional Water Plan Water Management Strategy Summary Sheet

	<p>Name: <i>Surface Water Rights</i></p> <p>Description: The Surface Water Rights water management strategy is included to explicitly recognize that use of water supplies made available under existing water rights by lease or purchase agreements between willing buyers and willing sellers is consistent with the 2006 South Central Texas Regional Water Plan. The addition of diversion points or types and places of use for existing surface water rights is also consistent with the 2006 Regional Water Plan, if necessary authorizations are obtained pursuant to Texas Commission on Environmental Quality (TCEQ) rules and applicable law.</p> <p>Decade Needed: 2010 – 2060</p>												
Cost, Quantity of Water, and Land Impacted													
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Unit Cost of Water:</td> <td style="width: 33%;">Variable</td> <td style="width: 33%;">\$/acft/yr</td> <td style="width: 33%;">Raw or Treated Water</td> </tr> <tr> <td>Quantity of Water:</td> <td>Variable</td> <td>acft/yr</td> <td>Reliability = Firm</td> </tr> <tr> <td>Land Impacted:</td> <td>Variable</td> <td>acres</td> <td></td> </tr> </table>	Unit Cost of Water:	Variable	\$/acft/yr	Raw or Treated Water	Quantity of Water:	Variable	acft/yr	Reliability = Firm	Land Impacted:	Variable	acres	
Unit Cost of Water:	Variable	\$/acft/yr	Raw or Treated Water										
Quantity of Water:	Variable	acft/yr	Reliability = Firm										
Land Impacted:	Variable	acres											
Additional Considerations per Regional Water Planning Guidelines													
	<p>Environmental Factors: Limited compared to other strategies because the source of water is existing water rights having prior authorizations for consumptive use. Must consider effects associated with new diversion, storage, transmission, treatment, and/or integration facilities in accordance with applicable state & federal requirements.</p> <p>Impacts on Water Resources: “No Injury” rule ensures protection of senior water rights. Potential reductions in instream flows or freshwater inflows to bays & estuaries associated with greater utilization of existing water rights.</p> <p>Impacts on Agricultural & Natural Resources: Minimal, if any.</p> <p>Other Relevant Factors per SCTRWPG: Encourages beneficial use of available rights. Downstream transfers can protect instream flows and recreational opportunities between the original and amended diversion points.</p> <p>Comparison of Strategies to Meet Needs: Low to high unit cost depending on location, reliability, and negotiations between willing buyers and sellers. No conflicts with other recommended water management strategies because existing water rights must be honored in assessment of water availability.</p> <p>Interbasin Transfer Issues: Interbasin transfer of water made available under existing surface water rights may involve additional regulatory requirements to amend place of use and may introduce changes in relative priority and inflow passage for environmental flow needs.</p> <p>Third-Party Impacts of Voluntary Transfers: None anticipated.</p> <p>Regional Efficiency: Maximizes beneficial use of existing permitted resources.</p> <p>Water Quality Considerations: None of significant concern.</p>												

4C.11 Surface Water Rights

4C.11.1 Description of Water Management Strategy

The Surface Water Rights water management strategy is included to explicitly recognize that use of water supplies made available under existing water rights by lease or purchase agreements between willing buyers and willing sellers is consistent with the 2006 South Central Texas Regional Water Plan. The addition of diversion points or types and places of use for existing surface water rights is also consistent with the 2006 Regional Water Plan, if necessary authorizations are obtained pursuant to Texas Commission on Environmental Quality (TCEQ) rules and applicable law. It is important to note that this water management strategy is intended to address existing water rights (within currently authorized annual and instantaneous maximum diversion rates) and not applications for new surface water appropriations. Furthermore, this strategy focuses on maximizing beneficial use of existing run-of-river water rights as opposed to the development of new major reservoirs. As described in Section 3.2.1, existing firm supplies from major reservoirs are either committed to current steam-electric power generation uses (Coletto Creek Reservoir and Braunig and Calaveras Lakes) or are the subject of another water management strategy (Canyon Reservoir).

Key applicable water law regarding amendment of existing water rights to facilitate lease/purchase agreements is found in Section 11.122 of the Texas Water Code which requires water rights holders to obtain authorization from TCEQ to “*change the place of use, purpose of use, point of diversion, rate of diversion, acreage to be irrigated, or otherwise alter a water right.*” Section 11.122 further provides that “*an amendment, except an amendment to a water right that increases the amount of water authorized to be diverted or the authorized rate of diversion, shall be authorized if the requested change will not cause adverse impact on other water right holders or the environment on the stream of greater magnitude than under circumstances in which the permit, certified filing, or certificate of adjudication that is sought to be amended was fully exercised according to its terms and conditions as they existed before the requested amendment.*” This section is identified in the TCEQ rules as the “No Injury” Rule. Pursuant to the “No Injury” Rule, restrictions may be placed upon a right for which amendment is being sought in order to protect senior water rights. An example of such restrictions is subordination of an amended right to water rights situated between the existing and amended diversion locations.

4C.11.2 Available Yield

Available yield of run-of-river surface water rights, whether before or after lease/purchase under the Surface Water Rights water management strategy, is determined using the applicable water availability model (WAM). The Guadalupe – San Antonio River Basin WAM¹ and the Nueces River Basin WAM² are the primary tools applicable for consideration of water rights in the South Central Texas Regional Water Planning Area (Region L). These WAMs perform the complex calculations accounting for relative seniority, authorized annual diversion, type(s) of use, maximum diversion rate, instream flow requirements, physical location, and authorized storage associated with a particular water right, in the context of historical hydrology, as necessary to quantify firm diversion or available yield subject to drought of record conditions. Information regarding current surface water rights in Region L is summarized in Appendix B of Volume I.

The following subsections summarize examples of water rights acquisitions and/or planned activities relevant to the Surface Water Rights water management strategy by wholesale water providers and water user groups within Region L. The SCTRWPG intends for these examples to be illustrative of activities consistent with the Surface Water Rights water management strategy and explicitly does not intend to limit recommended activities to those listed herein. With respect to the development of new municipal and industrial water supplies through the Surface Water Rights water management strategy, the SCTRWPG concurs with the TCEQ and the Texas Water Development Board (TWDB) in stressing that such additional supplies should be reliable subject to drought of record conditions. Hence, to the extent that run-of-river water rights intended to be used for new municipal and industrial supplies are not reliable under drought conditions, additional facilities (e.g., off-channel storage) and/or additional sources of supply (e.g., groundwater) must be specified and the overall water management strategy evaluated in accordance with TWDB regional water planning guidelines to ensure consistency with the Regional Water Plan.

¹ HDR Engineering, Inc., “Water Availability in the Guadalupe – San Antonio River Basin,” Texas Natural Resource Conservation Commission, December 1999.

² HDR Engineering, Inc., “Water Availability in the Nueces River Basin,” Texas Natural Resource Conservation Commission, October 1999.

4C.11.2.1 San Antonio Water System (SAWS)

The San Antonio Water System (SAWS) has acquired five surface water rights having a combined total authorized annual diversion of 9,376 acft/yr from the San Antonio River and its tributaries the Medina River and Leon Creek (Table 4C.11-1). These water rights could be used at existing locations or consolidated at downstream location(s) for municipal, industrial, and/or steam-electric uses. At the appropriate time, SAWS may seek authorizations from TCEQ for changes in point(s) of diversion and purpose(s) and place(s) of use for these water rights. Examples of potential uses of these water rights include:

- Diversion from the Medina or San Antonio River in Bexar County for treatment and use by SAWS municipal and industrial customers. Storage authorizations associated with two of the water rights increase reliability under drought conditions.
- Diversion from the San Antonio River near Elmendorf to augment water supplies for steam-electric power generation by the City Public Service Board of San Antonio at their facilities located on Braunig and Calaveras Lakes.
- Diversion from the small reservoir formed by the Guadalupe River Saltwater Barrier and Diversion Dam located immediately downstream of the confluence of the San Antonio and Guadalupe Rivers as an additional source of supply for the Lower Guadalupe Water Supply Project (LGWSP). Pursuant to a May 10, 2001 Water Supply and Delivery Agreement, SAWS is presently a partner in the development of the LGWSP which could provide municipal and industrial water supplies for Bexar County and others.

Future acquisitions of existing water rights, as well as the above and/or other similar uses of existing surface water rights, in accordance with the Surface Water Rights water management strategy, are consistent with the 2006 South Central Texas Regional Water Plan.

**Table 4C.11-1.
Example Water Rights Acquisitions by SAWS**

Water Right Number	Priority Date	Authorized Storage (acft)	Authorized Annual Diversion (acft)	Authorized Use	Maximum Diversion Rate (cfs)	Watercourse
19-2156	3/24/1926	0	294	Irr	7.80	Medina River
19-2159	3/24/1926	0	60	Irr	2.23	San Antonio River
19-3867	6/22/1981	0	22	Irr	8.00	Medina River
19-5469	5/11/1981	400	1,500	Irr, Ind	30.00	Leon Creek
19-5517	1/30/1995	1,000	7,500	Irr, Ind	50.00	Leon Creek
Total	---	1,400	9,376	---	98.03	---

4C.11.2.2 Bexar Metropolitan Water District (BMWD)

Bexar Metropolitan Water District (BMWD) has acquired four surface water rights having a combined total authorized annual diversion of 7,881 acft/yr from the San Antonio River and its tributaries (Table 4C.11-2). These water rights may be used at existing locations or consolidated at downstream location(s) for municipal uses. At the appropriate time, BMWD may seek authorizations from TCEQ for changes in point(s) of diversion and purpose(s) and place(s) of use for these water rights. One example of potential use of these water rights is diversion from the Medina or San Antonio River in Bexar County for treatment and use by BMWD municipal customers. Storage authorizations associated with three of the water rights increase reliability under drought conditions. Future acquisitions of existing water rights, as well as the above and/or other similar uses of existing surface water rights, in accordance with the Surface Water Rights water management strategy, are consistent with the 2006 South Central Texas Regional Water Plan.

**Table 4C.11-2.
Example Water Rights Acquisitions by BMWD**

Water Right Number	Priority Date	Authorized Storage (acft)	Authorized Annual Diversion (acft)	Authorized Use	Maximum Diversion Rate (cfs)	Watercourse
19-1959	6/26/1914	0	150	Mun	2.22	San Antonio River
19-1966	8/9/1911	34	481	Mun	2.67	San Antonio River
19-4768	Various	595	5,000	Mun	19.16	Medio Creek & Medina River
19-5549	3/15/1996	148	2,250	Mun	22.30	Polecat & Potranco Creeks
Total	---	777	7,881	---	46.35	---

4C.11.2.3 Canyon Regional Water Authority (CRWA)

Canyon Regional Water Authority (CRWA) has acquired or leased several surface water rights including Certificate of Adjudication No. (CA#) 18-3834 for diversion of 18.52 acft/yr from the Guadalupe River at Lake Dunlap and CA# 19-1155 for diversion of 42 acft/yr from Cibolo Creek. CA# 18-3834 is presently being used by CRWA for municipal supply and is the basic water right for which an amendment seeking additional authorized diversions may be filed with TCEQ as a part of the CRWA Dunlap Project (Section 4C.24). CA# 19-1155 is the basic

water right for which an amendment seeking additional authorized diversions may be filed with TCEQ as a part of the CRWA Siesta Project (Section 4C.25). The CRWA Siesta Project is expected to include acquisitions of additional existing water rights, conversion of purpose of use from irrigation to municipal, and consolidation of diversion points to one location on Cibolo Creek. Future acquisitions of existing water rights, as well as the above and/or other similar uses of existing surface water rights, in accordance with the Surface Water Rights water management strategy, are consistent with the 2006 South Central Texas Regional Water Plan. New appropriations or water rights amendments seeking additional diversions as parts of the CRWA Dunlap and Siesta Projects are separate matters.

4C.11.2.4 San Antonio River Authority (SARA)

The San Antonio River Authority (SARA) is considering the acquisition of existing surface water rights from the San Antonio River and its tributaries such as Cibolo Creek. These water rights could be used at existing locations or consolidated at downstream location(s) for municipal or industrial uses. At the appropriate time, SARA may seek authorizations from TCEQ for changes in point(s) of diversion and purpose(s) and place(s) of use for acquired water rights. Examples of potential uses of these water rights include:

- Diversion from Cibolo Creek (and/or its tributaries) or the San Antonio River for treatment and use by potential SARA municipal and industrial customers.
- Diversion from the small reservoir formed by the Guadalupe River Saltwater Barrier and Diversion Dam located immediately downstream of the confluence of the San Antonio and Guadalupe Rivers as an additional source of supply for the Lower Guadalupe Water Supply Project (LGWSP). Pursuant to a May 10, 2001 Water Supply and Delivery Agreement, SARA is presently a partner in the development of the LGWSP which could provide municipal and industrial water supplies for Bexar County and others.

Future acquisitions of existing water rights, as well as the above and/or other similar uses of existing surface water rights, in accordance with the Surface Water Rights water management strategy, are consistent with the 2006 South Central Texas Regional Water Plan.

4C.11.2.5 City of San Marcos

The City of San Marcos is considering the acquisition of existing surface water rights from the San Marcos River with the intent of augmenting future dependable water supplies by

2,867 acft/yr in order to meet projected needs. Examples of potential uses of existing water rights provided by San Marcos include:

- Senior water rights acquisition with relocation of diversion point.
- Junior water rights acquisition and new appropriation with off-channel storage.
- Purchase or lease surplus water under existing water right(s).

At the appropriate time, San Marcos may seek authorizations from TCEQ for changes in point(s) of diversion and purpose(s) and place(s) of use for any acquired water rights. Future acquisitions of existing water rights, as well as the above and/or other similar uses of existing surface water rights, in accordance with the Surface Water Rights water management strategy, are consistent with the 2006 South Central Texas Regional Water Plan.

4C.11.2.6 City of Victoria

The City of Victoria has acquired CA# 18-3860 which authorizes diversion of 260 acft/yr from the Guadalupe River. Victoria is presently involved in the administrative process of obtaining TCEQ authorization to include municipal supply as an authorized purpose of use for the full water right and to change the point of diversion to coincide with Victoria's existing surface water diversion works. Victoria is also considering other opportunities for purchase or lease of additional surface water rights. Future acquisitions of existing water rights, as well as the above and/or other similar uses of existing surface water rights, in accordance with the Surface Water Rights water management strategy, are consistent with the 2006 South Central Texas Regional Water Plan.

4C.11.2.7 City of Kenedy

The City of Kenedy has identified acquisition of existing surface water rights from the San Antonio River and/or its tributaries as an alternative water management strategy to augment future dependable water supplies and meet projected water needs. These water rights could be diverted at existing locations or consolidated at one diversion location for treatment and municipal or industrial uses. At the appropriate time, Kenedy may seek authorizations from TCEQ for changes in point(s) of diversion and purpose(s) and place(s) of use for acquired water rights. Future acquisitions of existing water rights, in accordance with the Surface Water Rights water management strategy, are consistent with the 2006 South Central Texas Regional Water Plan.

4C.11.3 Environmental Issues

Potential environmental issues associated with implementation of the Surface Water Rights water management strategy are somewhat limited compared to other strategies because the source of water is existing water rights having prior authorizations for consumptive use. If an amendment to an existing water right is necessary to implement the strategy, Section 11.122 of the Texas Water Code indicates that only adverse impacts on the environment on the stream of greater magnitude than under circumstances in which the right sought to be amended was fully exercised prior to the amendment need be addressed. Environmental effects associated with new diversion, storage, transmission, treatment, and/or integration facilities necessary to use water available under existing rights must be addressed in accordance with applicable state and federal requirements.

4C.11.4 Engineering and Costing

Estimated costs for purchase or lease of existing surface water rights are highly variable depending upon location, reliability, and negotiations between willing buyers and sellers. Although future acquisitions of specific water rights are not addressed herein, example estimated unit costs might range from a low of about \$60/acft/yr for raw water only, pursuant to the LGWSP Water Supply and Delivery Agreement among the Guadalupe-Blanco River Authority (GBRA), SAWS, and SARA, to a composite value of \$2,792/acft/yr for several potential projects including appurtenant facilities as identified by the City of San Marcos.

4C.11.5 Implementation Issues

Potentially significant implementation issues associated with the Surface Water Rights water management strategy include the following:

- Quantification and consideration of any potential effects on other water rights, streamflows, and freshwater inflows to bays and estuaries to the extent required by TCEQ rules and applicable state and federal law.
- Changes in the point of diversion may necessitate subordination of an amended right to water rights situated between the existing and amended diversion locations.
- Interbasin transfer of water made available under existing surface water rights may involve additional regulatory requirements to amend place of use and may introduce changes in relative priority and inflow passage for environmental flow needs.
- Run-of-river water rights often require storage and/or groundwater to firm up supply for municipal water use.

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