

## MEMORANDUM TO FILE

From: Amy D. Kaarlela, Freese and Nichols, Inc.

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Project: NTD-02182, Region C 2006 Regional Water Plan  
[NTD02182]T\Task 4 – Water Mgmt Strategies\Interbasin Transfers\M\_Pot Feas – Interbasin Transfer.doc

Subject: Potentially Feasible Projects for the Interbasin Transfers

One of the steps in the regional water planning process is the designation of potentially feasible water management strategies by the regional water planning group. The potentially feasible strategies are then evaluated, and the regional water planning group reviews the evaluations and selects the recommended water management strategies for the region. This memorandum discusses potentially feasible strategies for interbasin transfers for the 2006 Region C Water Plan.

### **Definition of Interbasin Transfer**

The term “interbasin transfer” refers to the transporting of surface water from one river basin (basin of origin) to another river basin (receiving basin). Additionally, transfers of water from another state or country into Texas can be considered interbasin transfers. Interbasin transfers require a permit from the Texas Commission on Environmental Quality (TCEQ). Many times, authorization for an interbasin transfer is included in the original water right permit or certificate of adjudication. Other times, the water right permit or certificate of adjudication must be amended to include the interbasin transfer.

### **Rules Governing Interbasin Transfer**

The rules governing interbasin transfers are included in the Texas Water Code (SS 11.085) and the Texas Administrative Code (Title 30, Part 1, Chapter 295, Subchapter A, Division 1, SS 295.13). These rules state that a permit for interbasin transfer will only be granted if the detriments to the basin of origin over the next 50 years are less than the benefits to the receiving basin over the next 50 years. Those detriments and benefits include both financial and environmental. The rules also state that the entities receiving the transferred water must have a water conservation plan in place that will result in the “highest practicable” level of water conservation. Exceptions from those rules are given when: 1) the transfer is less than 3,000 acre-feet per year, 2) there is an emergency transfer of water, 3) the transfer is to an adjoining coastal basin, or 4) the transfer is to a city or county that is partially within the basin of origin. Another important rule states that interbasin transfers will be considered junior to all existing water rights.

### **Reasons for Interbasin Transfer**

Interbasin transfer is needed when water from another basin is needed to meet future demands. This can be due to lack of supply within the basin, poor water quality of sources within the basin, or the availability of supply in another basin that is more practicable than other in-basin supplies. In some cases, such as the City of Athens, water user groups lie very near a river basin divide and the available water supply (Lake Athens) happens to be across the river basin divide. Two-thirds of all Region C water use occurs in the Dallas-Fort Worth Metroplex. Most of the surface water in the Metroplex is already permitted and being used, and groundwater in the area is limited. Interbasin transfer is a necessary part of supplies to meet the water needs.

### **Statewide Interbasin Transfers**

Interbasin transfer is currently practiced throughout the state of Texas, with over 85 interbasin transfers having permits. Some major existing interbasin transfers in other regions of the state include:

- Lake Meredith to Lubbock and Amarillo
- Lake Wright Patman to Texarkana
- Neches River to Coastal Area
- Lake Livingston to Houston
- Lake Corpus Christi to Corpus Christi
- Rio Grande River to Rio Grande Valley

Several major interbasin transfer projects from other regions of the state were proposed in the 2001 State Water Plan. They include:

- Guadalupe River to San Antonio
- Colorado River to San Antonio
- Little River Lake to Houston
- Allens Creek Lake to Houston
- Bedias Lake to Houston
- Lake Ivie to Abilene

### **Region C Interbasin Transfers**

Table 1 shows the interbasin transfers that are currently permitted to meet water needs within Region C.

**Table 1**  
**Currently Permitted Interbasin Transfers to Region C Suppliers**

<b>Destination</b>	<b>Source</b>	<b>Basin of Origin</b>	<b>Receiving Basin</b>	<b>Permitted Amount (Acre-Feet/Year)</b>	<b>Raw or Treated</b>	<b>Status</b>
Gainesville	Moss Lake	Red	Trinity	4,500	Raw	Operating
North Texas MWD	Lake Texoma	Red	Trinity	84,000	Raw	Operating
North Texas MWD	Lake Chapman <sup>b</sup>	Sulphur	Trinity	57,214	Raw	Operating
Irving	Lake Chapman <sup>b</sup>	Sulphur	Trinity	54,000	Raw	Operating
Upper Trinity RWD	Lake Chapman <sup>b</sup>	Sulphur	Trinity	16,106	Raw	Operating
Dallas	Lake Tawakoni	Sabine	Trinity	190,480	Raw	Operating
Dallas	Lake Fork	Sabine	Trinity	120,000	Raw	Under Construction
Dallas	Lake Palestine	Neches	Trinity	114,337	Raw	Not Yet Developed
Athens <sup>c</sup>	Lake Athens	Neches	Trinity	8,500	Treated	Operating
Terrell	Lake Tawakoni	Sabine	Trinity	10,090	Raw	Operating

- Notes:
- a. Permit allows exportation of 84,000 acre-feet/year, with only 77,300 to be used in the Trinity Basin. The remainder is allocated to channel losses.
  - b. Lake Chapman was formerly Cooper Lake.
  - c. Most of Athens is in the Trinity Basin.

**Potentially Feasible Interbasin Transfers**

An initial list of potentially feasible strategies for interbasin transfers was presented to the Region C Water Planning Group at the August 31, 2004, meeting. They are listed in Table 2. We recommend that these projects be adopted as Potentially Feasible Water Management Strategies for Interbasin Transfer for the 2006 Region C Water Plan.

**Table 2**  
**Potentially Feasible Interbasin Transfers for 2006 Region C Plan**

<b>Source</b>	<b>Basin of Origin</b>	<b>Receiving Basin</b>	<b>Amount (Acre-Feet/Year)</b>	<b>Other Management Strategy</b>
Lake Fork	Sabine	Trinity	120,000	Already permitted, under construction
Lake Palestine	Neches	Trinity	114,337	Already permitted
Toledo Bend	Sabine	Trinity	700,000	Connection of Existing Supply
Oklahoma Water	Red	Trinity	50,000	Connection of Existing Supply
Lake Wright Patman	Sulphur	Trinity	184,000	Connection of Existing Supply, Reallocation
Gulf of Mexico Desalination	Gulf of Mexico	Trinity	600,000	Connection of Existing Supply, Desalination
Lake Texoma Already Authorized	Red	Trinity	100,000	Connection of Existing Supply, Desalination, Reallocation
GTUA Lake Texoma	Red	Trinity	Part of 50,000	Connection to Existing Supply, Desalination, Reallocation
Lake Texoma Not Yet Authorized – Desalination	Red	Trinity	?	Connection of Existing Supply, Reallocation, Desalination
Lake Texoma Not Yet Authorized – Blending with Elm Fork Reservoirs	Red	Trinity	50,000?	Connection of Existing Supply, Reallocation
Cypress Basin Supplies	Cypress	Trinity	88,000	Connection of Existing Supply
Sam Rayburn Reservoir/B.A. Steinhagen	Neches	Trinity	300,000	Connection of Existing Supply
Additional Lake Palestine	Neches	Trinity	30,000	Connection of Existing Supply
Purchase from BRA	Brazos	Trinity	28,000	Connection of Existing Supply
Interim GTUA Texoma Water	Red	Trinity	20,000	Connection of Existing Supply
Marvin Nichols Lake	Sulphur	Trinity	495,300	New Surface Water
Lower Bois d'Arc Creek Lake	Red	Trinity	127,500	New Surface Water
Ralph Hall Lake	Sulphur	Trinity	39,000	New Surface Water
George Parkhouse I Lake	Sulphur	Trinity	95,300	New Surface Water
Lake Columbia	Neches	Trinity	40,000	New Surface Water