

BRAZOS G

WATER PLANNING GROUP

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BRAZOS RIVER AUTHORITY, Administrative Agent
P.O. Box 7555 ◊ Waco, Texas 76714-7555
(254) 761-3100 ◊ Fax (254) 761-3204

February 23, 2010

Mr. Kevin Ward
Executive Administrator
Texas Water Development Board
P.O. Box 13231
1700 North Congress Avenue
Austin, TX 78711-3231

RE: Amendment to the 2006 Brazos G Regional Water Plan related to the Johnson County Special Utility District

Dear Mr. Ward:

The Brazos G Regional Water Planning Group appreciates your response to our request regarding the Johnson County SUD's request for a minor amendment to the 2006 Brazos G Regional Water Plan. As requested in your January 27, 2010 letter, I have prepared the following responses to the points you raised and have attached supporting materials for your review:

1. Provide TWDB with documentation of the planning group action adopting this water management strategy as a minor amendment.

On February 3, 2010, the Brazos G Regional Water Planning Group (Group) voted to approve the minor amendment to the 2006 Brazos G Regional Water Plan requested by the Johnson County SUD. This amendment consists of a recommended strategy to obtain water supplies from the City of Mansfield. The resolution adopted by Brazos G regarding the minor amendment is attached for your records.

2. Issue and distribute an addendum to the 2006 Brazos G Regional Water Plan updating the plan accordingly.

Addendum materials sent under letter from HDR Engineering dated February 22, 2010 are attached to this letter. These materials will be posted on the Brazos G website alongside the documents for the 2006 Brazos G Regional Water Plan.

3. Provide TWDB with corrected DB07 data to reflect all of the associated changes in the 2006 Brazos G Regional Water Plan and State Water Plan.

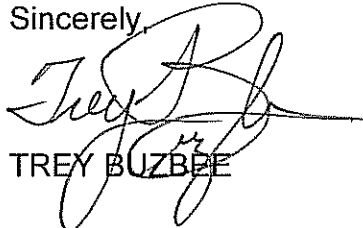
Brazos G will provide corrected DB07 data that reflect the associated changes in the 2006 Brazos G Regional Water Plan and State Water Plan to the TWDB..

4. Request that the Johnson County SUD obtain a web link from TWDB staff in order to fill out an associated online Infrastructure Financing Survey regarding how the entity plans to finance the project associated with the substitution.

Brazos G will make Johnson County SUD aware of this requirement.

If you have any questions with regard to the aforementioned responses, please contact me. The Brazos G Regional Water Planning Group appreciates your assistance in this matter.

Sincerely,



TREY BUZBEE

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BE IT HEREBY RESOLVED that the Brazos G Regional Water Planning Group hereby amends the 2006 Brazos G Regional Water Plan as follows:

1. Recommend to include the Johnson County Special Utility District's 13 mile, 30" water line project to obtain water supply from the City of Mansfield as a recommended water management strategy.

BE IT FURTHER RESOLVED that the Brazos G Regional Water Planning Group directs the Brazos River Authority to coordinate with the Texas Water Development Board to ensure that the recommended water management strategy is included in the 2007 State Water Plan.

February 22, 2010

Mr. Matt Nelson
Brazos G Project Manager
Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711-2131

Re: Transmittal of Johnson County SUD Amendment to the 2006 Brazos G Regional Water Plan

Dear Mr. Nelson:

The Johnson County SUD requested that the Brazos G Regional Water Planning Group (BGRWPG) amend the 2006 Brazos G Regional Water Plan by including a supply from the City of Mansfield as a recommended water management strategy. In a letter dated January 27, 2010, Mr. Kevin Ward, Executive Administrator, notified the BGRWPG that the amendment can be considered to be a minor amendment under 31 TAC Ch. 357.16. On February 3, 2010, after satisfying the required public notice requirements, the BGRWPG formally amended the 2006 Plan to include Supply from the City of Mansfield as a recommended water management strategy for the Johnson County SUD.

Enclosed, please find the following:

1. Memo from the BGRWPG detailing the amendment to the 2006 Brazos G Regional Water Plan.
2. Letter from Johnson County SUD requesting the amendment (Attachment A to the memo).
3. The revised water supply plan for the Johnson County SUD (Attachment B to the memo).
4. Technical evaluation of the proposed amendment (Attachment C to the memo).

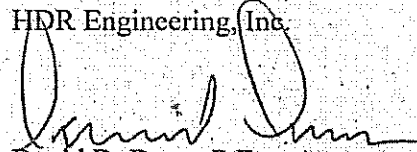
These documents have also been placed on the Brazos G website.

Mr. Matt Nelson
February 22, 2010
Johnson County SUD Amendment

Please coordinate revision of DB07 with Mr. Grady Reed and feel free to call Grady or me should you have any questions.

Sincerely,

HDR Engineering, Inc.



David D. Dunn, P.E.
Vice President

Enclosure

cc; Mr. Trey Buzbee

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(254) 761-3100 v Fax (254) 761-3204

February 3, 2010

To: Interested Parties

Re: Amendment to the 2006 Brazos G Regional Water Plan: **Johnson County SUD Supply from Mansfield.**

The Brazos G Regional Water Planning Group hereby amends the 2006 Brazos G Regional Water Plan as follows:

- 1. Recommend the Johnson County SUD Supply from Mansfield Project as a Recommended Water Management Strategy for Johnson County SUD.**

The Johnson County SUD is pursuing the construction of potable water transmission facilities to supply treated Trinity Basin water from a connection with the City of Mansfield.

The request to amend the 2006 Plan is included as Attachment A. The revised plan for Johnson County SUD is shown in Attachment B. A detailed technical evaluation of the project is included as Attachment C.



Johnson County Special Utility District

"Quality and Service since 1965"

November 10, 2009

Chairman
Brazos G Regional Water Planning Group
c/o Mr. Trey Buzzbee
Brazos River Authority
P.O. Box 7555
Waco, TX 76714

Dear Group Members,

Johnson County Special Utility District (JCSUD) is requesting an amendment to the 2006 Brazos G Regional Water Plan.

The amendment is sought for a project to assure future supplies of treated surface water for the customers residing in the JCSUD service area. As presently written, the 2006 Brazos G Regional Water Plan does not include the project.

The project that will form the basis of the amendment, entitled "Trinity Basin Transmission Facilities" will help JCSUD accomplish the following goals:

- Conserve highly stressed groundwater supplies
- Make potable water supplies from the Trinity Basin available for future growth
- Allow JCSUD to meet customer needs through the year 2028

The amendment is required to obtain funding through the Texas Water Development Board (TWDB) for constructing the project.

We request that this proposed amendment be placed on the agenda and considered by the planning group at its November 2009 meeting. At the meeting JCSUD will outline the amendment's purpose and scope to the members and answer questions. Due to time constraints, however, the full body of the amendment will not be available in time for the November 12th meeting. JCSUD therefore requests that the Board take the request under advisement, await the full amendment request in two weeks from Thursday the 12th of November and then begin the review and approval process, hopefully ending with Brazos G passing it along to the TWDB with a supportive endorsement.

We request that when received and reviewed by the Brazos G group, they pass the request along with their support to the Texas Water Development Board as soon as possible. We understand that this will entail a delay until the January meeting for full Board approval.

Respectfully Yours,

John M. Sewell, P.E.

2849 Hwy. 171 South • P.O. Box 509 • Cleburne, TX 76033-0509
(817) 760-5200 • Fax (817) 760-5258

4C.17.9 Johnson County SUD (Formerly Johnson County Rural WSC)

4C.17.9.1 Description of Supply

Johnson County SUD (which remains Johnson County Rural WSC in the TWDB database) obtains its water supply from groundwater from the Trinity Aquifer, and a contract with the Brazos River Authority for water from Lake Granbury through the SWATS system. Johnson County SUD is projected to have a shortage of 2,456 acft/yr in the year 2030, and a shortage of 13,252 acft/yr in the year 2060.

4C.17.9.2 Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended to meet the projected shortage of Johnson County SUD:

- Conservation,
- Supply from the City of Mansfield, and
- Purchase water from the Trinity River Authority Joe Pool Reservoir Reuse Project.
- Alternatives to this plan are additional use of Lake Granbury supply (Volume II, Section 4B.6.1) and Aquifer Storage and Recover (ASR) in the Trinity Aquifer (Volume II, Section 4B.8.2).

4C.17.9.3 Costs

Costs of the Recommended Plan for Johnson County SUD.

- a. Conservation:
 - Cost Source: Volume II, Section 4B.2.1
 - Date to be Implemented: before 2010
 - Annual Cost: maximum of \$1,820,960 in 2060
- b. Supply from the City of Mansfield:
 - Cost Source: Amendment to the 2006 Brazos G Plan
 - Date to be Implemented: before 2020
 - Total Project Cost: \$12,745,000
 - Annual Cost: \$11,292,113
- c. Reuse from Trinity River Authority (Joe Pool Reservoir):
 - Cost Source: Volume II, Section 4B.11.1
 - Date to be Implemented: before 2030

- Total Project Cost: \$79,257,000
- Annual Cost: \$12,003,200

**Table 4C.17-10.
Recommended Plan Costs by Decade for Johnson County SUD**

<i>Plan Element</i>	<i>2010</i>	<i>2020</i>	<i>2030</i>	<i>2040</i>	<i>2050</i>	<i>2060</i>
Projected Surplus/(Shortage) (acft/yr)	2,284	39	(2,456)	(5,431)	(9,212)	(13,252)
Conservation						
Supply From Plan Element (acft/yr)	423	1,307	1,883	2,761	3,941	4,792
Annual Cost (\$/yr)	\$160,740	\$496,660	\$715,540	\$1,049,180	\$1,497,580	\$1,820,960
Unit Cost (\$/acft)	\$380	\$380	\$380	\$380	\$380	\$380
Supply from the City of Mansfield						
Supply From Plan Element (acft/yr)	—	10,082	10,082	10,082	10,082	10,082
Annual Cost (\$/yr)		\$11,292,113	\$11,292,113	\$11,292,113	\$10,366,200	\$10,366,200
Unit Cost (\$/acft)		\$1,120	\$1,120	\$1,120	\$1,028	\$1,028
Reuse from Trinity River Authority (Joe Pool Reservoir)						
Supply From Plan Element (acft/yr)	—	—	20,000	20,000	20,000	20,000
Annual Cost (\$/yr)			\$12,003,200	\$12,003,200	\$12,003,200	\$12,003,200
Unit Cost (\$/acft)			\$600	\$600	\$600	\$600

Johnson County SUD Supply from the City of Mansfield

Description of Option

Johnson County Special Utility District (JCSUD) is currently pursuing the construction of potable water transmission facilities to supply treated Trinity Basin water to its customers, as show in Figure 1. The facilities will transmit water taken from a connection with the City of Mansfield in accordance with the terms of a recently completed contract between the City and JCSUD. The transmission facilities will ultimately be capable of transmitting the maximum allowed daily demand of 9.0 million gallons per day (MGD), or 10,082 acre-feet per year (acft/yr) of treated potable water to the JCSUD system. The project will consist of:

- A new pump station and 1.0 million gallon (MG) ground storage tank.
- A 30-inch diameter transmission line.
- Associated branch lines (12-inch and 16-inch diameters) to transmit water to pumping stations.

Available Supply

The project will make 10,082 acft/yr available from the Trinity Basin.

Environmental Issues

Possible environmental impacts attending the construction of the transmission facilities include effects upon endangered species, riparian corridors, wetlands, cultural resources, habitat or undisturbed archeological sites. These aspects of the project will be the subject of requisite studies and assessments; should any areas of concern be identified, all reasonable and approved mitigation measures will be implemented. A summary of environmental issues is shown in Table 1.

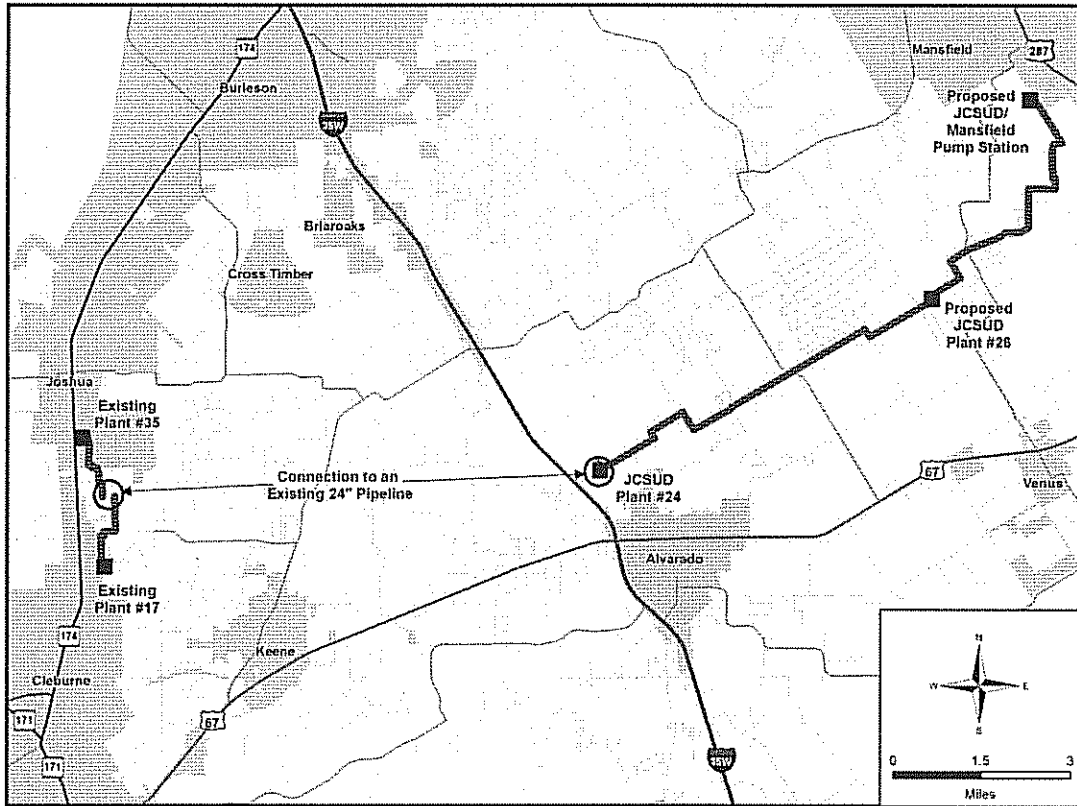


Table 1.
Environmental Issues: Johnson County SUD Supply from the City of Mansfield

Implementation Measures	Development of transmission pipelines, ground storage tanks and pump stations
Environmental Water Needs / Instream Flows	Possible low impact as this supply is already permitted
Bays and Estuaries	Possible low negative impact
Fish and Wildlife Habitat	Possible low impact related to the pipeline corridors
Cultural Resources	Possible low impact related to the pipeline corridors
Threatened and Endangered Species	Negligible impact

Implementation Issues

Regulatory permits for construction of the proposed facilities may be required. Quite possibly, at least one Texas Parks and Wildlife Department (TP&WD) Sand, Shell, Gravel and Marl permit for construction in state-owned stream beds will be required. In addition, an effective Storm Water Pollution Prevention Program (SW3P) including proper re-vegetation of the area after construction will be implemented as required throughout the project's locations. A U.S. Army Corps of Engineers 404 permit may also be required.

Another regulatory issue to be resolved is that of inter-basin transfer of Trinity River Basin surface water to the Brazos River Basin. Permitted through the Texas Commission for Environmental Quality (TCEQ), the impact of inter-basin transfer issues will be determined in part upon current water rights held by the Tarrant Regional Water District and the additional fact that the JCSUD service area includes parts of both river basins.

Engineering and Costing

The required improvements and costs to implement JCSUD's strategy are summarized in Table 2. The project requires a 9 MGD pump station along with a 1.0 MG storage tank. Transmission pipelines of 30-inch (66,000 linear feet), 16-inch (7,700 linear feet) and 12-inch (6,800 linear feet) diameters will be required.

The project will have an estimated total project cost of \$12,745,040 and an annual cost of \$11,292,113. Most of the annual cost is related to the purchase of treated water from the City of Mansfield. This annual cost translates to a \$1,120 per acft or \$3.44 per 1,000 gallons unit cost.

Table 2.
Cost Estimate Summary
Johnson County SUD Supply from the City of Mansfield
Second Quarter 2002 Prices

<i>Item</i>	<i>Estimated Costs for Facilities 2Q 2002 Prices</i>
9 MGD Pump Station and 1 MG Ground Storage Tank	\$2,619,958
Transmission Pipeline (30-in dia, 66,000 feet)	\$6,189,930
Transmission Pipeline (16-in dia., 7,700 feet)	\$417,912
Transmission Pipeline (12 in dia., 6,800 feet)	\$291,254
Total Capital Cost	\$9,519,054
Engineering, Environmental, Archeology, Mitigation	\$1,034,643
Bonds	\$224,304
Land Acquisition and Legal	\$383,985
Contingencies	\$1,583,054
Total Project Cost	\$12,745,040
Annual Costs	
Debt Service (6 percent, 30 years)	\$925,913
Operation and Maintenance	
Intake, Pipeline, Pump Station	\$190,381
Pumping Energy Costs (2,610,500 kW-hr @ 0.06 \$/kW-hr)	\$156,630
Purchase Treated Water (10,082 acft/yr @ \$993.77/acft)	<u>\$10,019,189</u>
Total Annual Cost	\$11,292,113
Available Project Yield (acft/yr)	10,082
Annual Cost of Water (\$ per acft)	\$1,120
Annual Cost of Water (\$ per 1,000 gallons)	\$3.44
Note: Total project, O&M, pumping energy, and purchase costs provided by Johnson County SUD.	