

BRA Draft

WATER USE PERMIT

PERMIT NO. 5851

TYPE §§ 11.121, 11.042 & 11.085

Permittee:	Brazos River Authority	Address:	P.O. Box 7555 Waco, Texas 76714-7555
Filed:	October 15, 2004	Granted:	
Purposes:	Domestic, Municipal, Agricultural, Industrial, Mining, and Recreation	Counties:	Parmer, Castro, Swisher, Bailey, Lamb, Hale, Floyd, Cochran, Hockley, Archer, Lubbock, Crosby, Baylor, Dickens, King, Knox, Jack, Terry, Lynn, Mitchell, Chambers, Young, Garza, Throckmorton, Kent, Haskell, Stonewall, Parker, Palo Pinto, Dawson, Scurry, Borden, Fisher, Stephens, Jones, Shackelford, Johnson, Hood, Nolan, Erath, Eastland, Taylor, Callahan, Somervell, Hill, Comanche, Bosque, Brown, Freestone, Hamilton, McLennan, Limestone, Mills, Coryell, Leon, Falls, Lampasas, Robertson, Bell, Madison, Milam, Burnet, Brazos, Grimes, Williamson, Burleson, Travis, Lee, Washington, Bastrop, Fayette, Waller, Harris, Austin, Colorado, Fort Bend, Galveston, Matagorda, Wharton, and Brazoria
Watercourses:	Multiple Tributaries of the Brazos River and the Brazos River	Watersheds:	Brazos River Basin, Trinity River Basin, Red River Basin, Colorado River Basin, San Jacinto River Basin, San Jacinto-Brazos Coastal Basin, Brazos-Colorado Coastal Basin Lavaca River Basin Guadalupe River Basin

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BRA Exhibit No. 8-B

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WHEREAS, the Brazos River Authority, Applicant, owns the water rights and reservoirs authorized by Certificate of Adjudication (Certificate) No. 12-5155 (Possum Kingdom Lake), Certificate No. 12-5156 (Lake Granbury), Certificate No. 12-5165 (Lake Limestone), and Water Use Permit No. 2925A (Allens Creek Reservoir in conjunction with the Texas Water Development Board and the City of Houston); and

WHEREAS, Applicant also owns the water rights and has contracts with the United States Army Corps of Engineers for storage authorized by Certificate No. 12-5157 (Lake Whitney), Certificate No. 12-5158 (Lake Aquilla), Certificate No. 12-5159 (Lake Proctor), Certificate No. 12-5160 (Lake Belton), Certificate No. 12-5161 (Lake Stillhouse Hollow), Certificate No. 12-5162 (Lake Georgetown), Certificate No. 12-5163 (Lake Granger), Certificate No. 12-5164 (Lake Somerville); and

WHEREAS, Applicant also owns the water rights authorized by Certificates Nos. 12-5166 and 12-5167, which authorize various uses of water within the Applicant's other certificates and permits; and

WHEREAS, Applicant is currently authorized, pursuant to the 1964 System Operation Order, as amended, to manage and operate its tributary reservoirs as elements of a system, coordinating releases and diversions from the tributary reservoirs with releases and diversions from the Applicant's mainstem reservoirs to minimize waste, and to conserve water in reservoirs in which the supply is short by making releases from tributary reservoirs in which the supply is more abundant; and

WHEREAS, Applicant has indicated that their service area includes the following counties: Parmer, Castro, Swisher, Bailey, Lamb, Hale, Floyd, Cochran, Hockley, Archer, Lubbock, Crosby, Baylor, Dickens, King, Knox, Jack, Terry, Lynn, Mitchell, Chambers, Young, Garza, Throckmorton, Kent, Haskell, Stonewall, Parker, Palo Pinto, Dawson, Scurry, Borden, Fisher, Stephens, Jones, Shackelford, Johnson, Hood, Nolan, Erath, Eastland, Taylor, Callahan, Somervell, Hill, Comanche, Bosque, Brown, Freestone, Hamilton, McLennan, Limestone, Mills, Coryell, Leon, Falls, Lampasas, Robertson, Bell, Madison, Milam, Burnet, Brazos, Grimes, Williamson, Burleson, Travis, Lee, Washington, Bastrop, Fayette, Waller, Harris, Austin, Colorado, Fort Bend, Galveston, Matagorda, Wharton, Brazoria; and

WHEREAS, Applicant has applied for a Water Use Permit to authorize:

- A new appropriation of state water in the amount of 421,449 acre-feet per year for multiple uses, including domestic, municipal, agricultural, industrial, mining, and other beneficial uses on a firm basis in the Brazos River Basin. The amount of this new appropriation of water includes the current and future return flows requested in this application. Applicant indicates that the entire amount of 421,449 acre-feet of water per year is available only if all of it is diverted at the mouth of the Brazos River, and can only be made available by the Applicant through the system operation of its water rights. To the extent water is diverted upstream, the remaining unappropriated water downstream is reduced and will itself vary depending upon the location of its diversion and use. Out of the 421,449 acre-feet per year of unappropriated water being requested, the maximum amount of unappropriated water that will be available if such water is diverted upstream at USGS Gage No. 08091000 near Glen Rose, Texas is 150,538 acre-feet per year firm, and if such unappropriated water is diverted

upstream at USGS Gage No. 08098290 near Highbank, Texas, the maximum amount of unappropriated water that will be available at that location is 144,306 acre-feet per year firm;

- Diversion of the water authorized by this permit, if granted, from: (i) the existing diversion points authorized by Applicant's existing water rights; (ii) the Brazos River at the USGS Gage No. 08091000 near Glen Rose, Texas; (iii) the Brazos River at USGS Gage No. 08098290 near Highbank, Texas; (iv) the Brazos River at the Gulf of Mexico; and (v) at such other diversion points that may be identified and included in Applicant's proposed Water Management Plan which is subject to TCEQ's approval;
- Use of up to 90,000 acre-feet of water per year of its firm supply (part of the 421,449 acre-feet of firm water requested above) to produce, along with other unappropriated flows, an interruptible water supply of 670,000 acre-feet per year and the appropriation of that interruptible water supply. Applicant indicates that the entire amount of 1,001,449 acre-feet of water (331,449 acre-feet of firm water and 670,000 acre-feet of interruptible water) is available only if all of it is diverted at the mouth of the Brazos River, and can only be made available by the Applicant through the system operation of its water rights. To the extent water is diverted upstream, the remaining unappropriated water downstream is reduced and will itself vary depending on the location of its diversion and use. This new appropriation of water includes the current and future return flows requested in this application. Out of the 1,001,449 acre-feet of firm and interruptible water being requested, the maximum amount of firm and interruptible water that will be available if such water is diverted upstream at USGS Gage No. 08091000 near Glen Rose, Texas is 60,538 acre-feet of firm water per year and 157,000 acre-feet of interruptible water per year and if such water is diverted upstream at USGS Gage No. 08098290 near Highbank, Texas, the maximum amount of firm water is 54,306 acre-feet of water per year and 303,000 acre-feet of interruptible water per year;
- An exempt interbasin transfer authorization to transfer and use, on a firm and interruptible basis, such water in the adjoining San Jacinto-Brazos Coastal Basin and the Brazos-Colorado Coastal Basin, and to transfer such water to any county or municipality or the municipality's retail service area that is partially within the Brazos River Basin for use, on a firm and interruptible basis, in that part of the county or municipality and the municipality's retail service area not within the Brazos River Basin;
- An appropriation of current and future return flows (treated sewage effluent and brine bypass/return) to the extent that such return flows continue to be discharged or returned into the bed and banks of the Brazos River, its tributaries, and Applicant's reservoirs. Applicant indicates that such appropriation of return flows would be subject to interruption by direct reuse or indirect reuse within the discharging entity's city limits, extraterritorial jurisdiction, or contiguous water certificate of convenience and necessity boundary. Specified discharge points and amounts of water will be accounted for on a monthly basis as part of Applicant's Water Management Plan which is subject to TCEQ's approval;

- Operational flexibility to (1) use any source of water available to the Applicant to satisfy the diversion requirements of senior water rights to the same extent that those water rights would have been satisfied by passing inflows through the Applicant's reservoirs on a priority basis; and (2) release, pump and transport water from any of the Applicant's reservoirs for subsequent storage, diversion and use throughout the Applicant's service area. (Applicant's "service area" includes all counties listed above);
- Recognition that this System Operation Permit approved pursuant to this application will prevail over inconsistent provisions in the Applicant's existing water rights regarding system operation;
- Use of the bed and banks of the Brazos River, its tributaries and the Applicant's reservoirs for the conveyance, storage, and subsequent diversion of (i) water that the Applicant seeks to appropriate under this application; (ii) waters that are being conveyed via pipelines and subsequently discharged into the Brazos River, its tributaries or stored in the Applicant's reservoirs; (iii) surface water imported from areas located outside the Brazos River Basin for subsequent use; (iv) in-basin surface water and groundwater subject to the Applicant's control; (v) waters developed from future Applicant projects; and (vi) current and future reuse of surface and groundwater based return flows requested by this application. This bed and banks authorization is subject to Applicant, after identifying specific points of discharge and diversion and conveyance and other losses, obtaining future authorizations to satisfy the requirements of TWC § 11.042. Such points of discharge and diversion and conveyance and other losses may also be identified and included in Applicant's proposed Water Management Plan which is subject to TCEQ's approval; and

WHEREAS, until the construction of Allens Creek Reservoir is completed, Applicant requests that the System Operation Permit include special conditions which authorize:

- The Applicant to appropriate state water in the amount of 425,099 acre-feet per year for multiple use purposes, including domestic, municipal, agricultural, industrial, mining, and other beneficial uses on a firm basis in the Brazos River Basin. This amount includes the current and future return flows requested in this application. This amount is available if all of the water is diverted at the mouth of the Brazos River, and can only be made available by the Applicant through the system operation of its water rights. To the extent water is diverted upstream, the remaining unappropriated water downstream is reduced and will itself vary depending upon the location of its diversion and use. Out of the 425,099 acre-feet per year of unappropriated water being requested, the maximum amount of unappropriated water that will be available if such water is diverted upstream at USGS Gage No. 08091000 near Glen Rose, Texas is 150,538 acre-feet per year firm and if such unappropriated water is diverted upstream at USGS Gage No. 08098290 near Highbank, Texas the maximum amount of unappropriated water that will be available is, at that location, 175,306 acre-feet per year firm;
- The Applicant to use up to 90,000 acre-feet of water per year of its firm supply to produce, along with other unappropriated flows an interruptible water supply of 869,000 acre-feet per year. This amount includes the current and future return

flows requested in this application. Applicant indicates that the entire amount of 1,204,099 acre-feet of water (335,099 acre-feet of firm water and 869,000 acre-feet of interruptible water) is only available if all of it is diverted at the mouth of the Brazos River, and can only be made available by the Applicant through the system operation of its water rights. To the extent water is diverted upstream, the remaining unappropriated water downstream is reduced and will itself vary depending upon the location of its diversion and use. Out of the 1,204,099 acre-feet of firm and interruptible water being requested, the maximum amount of firm and interruptible water that will be available if such water is diverted upstream at USGS Gage No. 08091000 near Glen Rose, Texas, will be 60,538 acre-feet of firm water per year and 190,000 acre-feet of interruptible water per year and if such water is diverted upstream at USGS Gage No. 08098290 near Highbank, Texas the maximum amount of firm water will be 85,306 acre-feet of water per year and 284,000 acre-feet of interruptible water per year;

- Exempt interbasin transfer authorization to transfer and use, on a firm and interruptible basis, such water in the adjoining San Jacinto-Brazos Coastal Basin and the Brazos-Colorado Coastal Basin, and to transfer such water to any county or municipality or the municipality's retail service area that is partially within the Brazos River Basin for use, on a firm and interruptible basis, in that part of the county or municipality and the municipality's retail service area not within the Brazos River Basin; and

WHEREAS, the Texas Commission on Environmental Quality (Commission) finds that jurisdiction over the application is established; and

WHEREAS, the Executive Director recommends that specific stream flow restrictions should be included in the permit to maintain the instream uses and water quality conditions of the Brazos River; and

WHEREAS, as additional factual and scientific information becomes available, it is anticipated that the interim special conditions in Paragraph 6.E. below relative to environmental flows will be revised, through Commission approved revisions of the Water Management Plan, to better provide for the environmental instream flow needs of the Brazos River and its tributaries and to make the maximum amount of water available for beneficial use that is consistent with those needs; and

WHEREAS, the Executive Director recommends that in order to protect senior and superior water rights owners, special conditions should be included in the permit; and

WHEREAS, to avoid ambiguities between this system operation authorization and Applicant's previous system operation authorizations reflected by the System Operation Order and existing permits, the Executive Director recommends that this System Operation Permit be subject to all provisions included in the Commission's July 23, 1964 System Operation Order, as amended, authorizing system operation of certain reservoirs in the Brazos River Basin and to all terms and conditions of Permittee's authorizations in Certificates Nos. 12-5155, 12-5156, 12-5165, 12-5157, 12-5160, 12-5159, 12-5164, 12-5161, 12-5163, 12-5162, 12-5158, 12-5166 and 12-5167 and Water Use Permit No. 2925A except to the extent specifically provided otherwise by conditions in this permit regarding the total amount of water appropriated and available for storage, use and diversion and purpose of use, and as may be modified in the future by Commission approval of Applicant's Water Management Plan; and

WHEREAS, this application is subject to the Texas Coastal Management Program (CMP) and must be consistent with the CMP goals and policies; and

WHEREAS, the Commission finds that the issuance of this permit is consistent with the goals and policies of the Texas CMP; and

WHEREAS, the Commission has complied with the requirements of the Texas Water Code and Rules of the Texas Commission on Environmental Quality in issuing this permit;

NOW, THEREFORE, Water Use Permit No. 5851 is issued to the Brazos River Authority, subject to the following terms and conditions:

1. USE

A. NEW APPROPRIATION

- 1) Permittee is authorized to impound, divert, and use not to exceed the following volumes of unappropriated water per year for domestic, municipal, agricultural, industrial, and mining use within its service area subject to special conditions:

Location	New Appropriation Amounts	
	Volume in acre-feet	
Glen Rose	217,538	
Highbank	357,306	
Richmond	1,001,449	
Gulf of Mexico	1,001,449	

- 2) Until such time as the ports are closed on the dam impounding Allens Creek Reservoir, authorized by Water Use Permit No. 2925, in lieu of Paragraph 1.A.1, Permittee may impound, divert, and use not to exceed the following volumes of unappropriated water per year, subject to special conditions:

Location	New Appropriation Amounts without Allens Creek	
	Volume in acre-feet	
Glen Rose	250,538	
Highbank	369,306	
Richmond	1,204,099	
Gulf of Mexico	1,204,099	

B. USE OF BED AND BANKS

Permittee is authorized to use the bed and banks of the Brazos River below Possum Kingdom Lake, its tributaries and Permittee's authorized reservoirs for the conveyance, storage, and subsequent diversion of the water authorized herein, subject to identification of specific losses and special conditions.

C. INTERBASIN TRANSFER

Permittee is hereby granted an exempt interbasin transfer authorization to transfer and use the water authorized herein in Permittee's service area in the adjoining San Jacinto-Brazos Coastal Basin and the Brazos-Colorado Coastal Basin and to transfer such water to any county or municipality or the municipality's retail service area that is partially within the Brazos River Basin for use on a firm and non-firm basis in that part of the county or municipality and the municipality's retail service area within the Trinity, Red, Colorado, Guadalupe, Lavaca and San Jacinto River Basins.

D. RETURN FLOWS

Permittee is authorized to impound, divert and use return flows discharged into the Brazos River Basin subject to special conditions to protect water rights granted based on the presence of those return flows as well as other senior rights. The storage and diversion of return flows is subject to environmental flow requirements set out in Special Condition 4.E.

2. DIVERSION

Permittee is authorized to divert and use the water authorized by this permit as follows:

A. POINTS

- 1) At the diversion points authorized by Permittee's existing water rights.
- 2) At United States Geological Survey (USGS) Gage No. 08091000, Brazos River near Glen Rose at Latitude 31.2589°N, Longitude 97.7022°W in Somervell County.
- 3) At USGS Gage No. 08098290, Brazos River near Highbank at Latitude 31.1339°N, Longitude 96.8247°W in Falls County.
- 4) At USGS Gage No. 08114000, Brazos River at Richmond at Latitude 29.5822°N, Longitude 95.7575°W in Fort Bend County.
- 5) At the mouth of the Brazos River at the Gulf of Mexico at Latitude 28.8783°N, Longitude 95.379111°W in Brazoria County.
- 6) At other such diversion points located in the reaches specified in USE Paragraph 1.B, above, or as may be identified and included in Permittee's Commission approved Water Management Plan, or as may be otherwise authorized in the future.

B. RATES

- 1) At the diversion rates authorized by the Certificates of Adjudication and Water Use Permit authorizing each of the reservoirs comprising the system operation as defined in this permit.
- 2) At unspecified rates at points within the reaches authorized in USE paragraph 1.B, including at the diversion points authorized by 2.A.2.,

2.A.3., 2.A.4, and 2.A.5., or points identified in the Commission approved Water Management Plan, subject to Permittee's accounting/delivery plan.

3. PRIORITY

The priority date for the rights authorized by this permit, including diversion of return flows, is October 15, 2004.

4. CONSERVATION

Permittee shall implement water conservation plans that provide for the utilization of those reasonable practices, techniques, and technologies that will reduce on a per unit basis the consumption of water, prevent or reduce the loss or waste of water, improve the efficiency in the use of water, increase the recycling and reuse of water, and prevent the pollution of water, so that a water supply is made available for future or alternative uses. The practices, techniques, and technologies used shall be designed to achieve a level of efficiency of use that is equal to or greater than the level provided for in Permittee's most recent water conservation plans on file with the Commission as of the date of the issuance of this permit. Such plans shall include a requirement that in every wholesale water supply contract entered into on or after the date of this permit, including any contract extension or renewal, that each successive wholesale customer develop and implement conservation measures meeting the requirements of this provision. If the customer intends to resell the water, then the contract for resale of the water must have water conservation requirements so that each successive wholesale customer in the resale of the water is required to implement water conservation measures meeting the requirements of this provision.

5. SPECIAL CONDITIONS

A. SPECIAL CONDITIONS RELATIVE TO USE OF RETURN FLOWS

1) Prior to the diversion of return flows authorized by this permit, Permittee must submit to and have approved by the Executive Director, a return flow accounting plan. The return flow accounting plan must be in electronic format and account, by source, for all return flows discharged. The return flow accounting plan shall include amounts discharged by outfall and computation of the amount of additional firm yield attributable to the total amount of return flows actually discharged, taking into account environmental flow requirements and demands of senior water rights. Permittee's use of additional water supply attributable to return flows is limited to the amount shown to be available, based upon amounts discharged, by the return flow accounting plan. Permittee shall maintain the approved return flow accounting plan in electronic format and make it available to the general public during normal business hours and to the Executive Director upon request. Modifications or changes to the return flow accounting plan must be approved by the Executive Director. The return flow accounting plan shall be included as part of Permittee's accounting/delivery plan.

2) Permittee's storage, diversion and use of surface water based return flows is subject to interruption by direct use or indirect use within the

discharging entity's corporate limits, extraterritorial jurisdiction, or contiguous water certificate of convenience and necessity boundary, provided the discharging entity has applied for and been granted authorization to reuse the return flows.

- 3) Permittee's storage, diversion and use of groundwater based return flows is subject to interruption by direct reuse or indirect reuse upon issuance of a bed and banks authorization pursuant to Texas Water Code § 11.042(b) by TCEQ to the discharging entity.
- 4) Prior to diversion of the water authorized herein as attributable to return flows, if sufficiently accurate measuring devices are not available, Permittee shall install and maintain measuring device(s) capable of measuring within plus or minus 5% accuracy, at the discharge point of each wastewater treatment plant (WWTP) to record the amount of return flows discharged into the Brazos River or its tributaries on a daily basis. If Permittee does not, or cannot, install such metering devices at specific discharge points, return flows from those discharge points cannot be included in the return flow accounting plan and the additional water supply attributable to those return flows shall not be available for storage, diversion and use pursuant to this permit, unless an alternate method for measuring or estimating return flows from those discharge points is approved by the Executive Director.

B. SPECIAL CONDITIONS RELATIVE TO USE OF BED AND BANKS

- 1) The use of the bed and banks of Allens Creek from below Allens Creek Reservoir to the Brazos River is not authorized until Permittee applies for and is granted an amendment to Water Use Permit No. 2925 authorizing such use.
- 2) Permittee is authorized to use the following reaches, authorized in Permittee's certificates and amendments, for conveyance of water, previously appropriated to the Permittee and water authorized by this permit, downstream for diversion at Glen Rose, Highbank and the Gulf of Mexico and any of the Permittee's currently authorized diversion points within these reaches:
 - a. Brazos River from below Possum Kingdom Lake to the Gulf of Mexico;
 - b. Leon River from Lake Proctor to the confluence with the Little River;
 - c. Lampasas River from Lake Stillhouse Hollow to the confluence with the Little River;
 - d. Little River from the junction of Leon and Lampasas Rivers to the confluence with the Brazos River;
 - e. Yegua Creek from Lake Somerville to the confluence with the Brazos River;
 - f. Navasota River from Lake Limestone to the confluence with the Brazos River;
 - g. San Gabriel River from Lake Granger to the confluence with the

- Little River and downstream to its confluence with the Brazos River;
- h. North Fork San Gabriel River from Lake Georgetown to the confluence with the San Gabriel River, to its confluence with the Little River and downstream to its confluence with the Brazos River;
 - i. Aquilla Creek from Lake Aquilla downstream to its confluence with the Brazos River.
 - j. Allens Creek, following construction of Allens Creek Reservoir, downstream from Allens Creek Reservoir to its confluence with the Brazos River, in compliance with Special Condition 5.B.1, above.
- 3) Prior to use of the bed and banks identified in Special Condition 5.B.2 above, Permittee must submit to and have approved by the Executive Director, as part of its accounting/delivery plan, a procedure to estimate daily deliveries of water. This procedure should be in electronic format and detail by source, type and priority date, the amounts to be conveyed and delivered, losses associated with the conveyance, specific points of diversion, associated travel times, and times of commencement and termination of transit for conveyed waters. Documentation of actual deliveries as well as the accounting/delivery plan shall be maintained by the Permittee in electronic format and made available to the general public during normal business hours and to the Executive Director upon request. Modifications or changes to the accounting/delivery plan must be approved by the Executive Director.
- 4) The use of the bed and banks of additional streams and tributaries in the Brazos River Basin for conveyance of water appropriated under this permit, or other sources available to the Permittee, is subject to Permittee, after identifying specific sources and types of water, specific points of discharge and diversion, and conveyance and other losses, obtaining future authorizations to satisfy the requirements of TWC § 11.042, which approval may be granted by Commission approval of the Water Management Plan.
- 5) The use of additional points of diversion within the reaches specified in Special Condition 5.B.2 above is subject to Permittee obtaining authorization to use those diversion points. The points of diversion may also be identified and included in Permittee's proposed Water Management Plan which is subject to Commission approval.

C. SPECIAL CONDITIONS RELATIVE TO NEW APPROPRIATION

- 1) Prior to diversion or storage of the water authorized by this permit, Permittee shall provide to and have approved by the Executive Director, a daily accounting/delivery plan that includes, at a minimum, the following:
- a. The accounting/delivery plan shall address reservoir storage and withdrawal plans for each system reservoir and account by

- priority date and amounts for any inflows, evaporation, water in storage and diversions from the reservoirs under all of Permittee's priority dates and authorizations including reuse;
- b. A method to account for inflows to system reservoirs for purposes of compliance with special conditions requiring passage of pulse flows and estimation of those inflows;
 - c. An accounting of instream flow and pulse requirements to include total system storage, gage flows at the measurement points, high flow pulse volume impounded and the release schedule for the impounded high flow pulse, and timing, magnitude and duration of pulse flows;
 - d. The accounting/delivery plan must detail how measurements will be taken to determine if impoundment or diversions under either Permittee's senior or junior rights can be made;
 - e. The accounting/delivery plan must identify, account for, and distinguish between firm and non-firm water supplied or delivered from Permittee's system of reservoirs. In addition, the accounting/delivery plan must specify diversion points for this water if those diversion points are not specifically identified in this permit. Any additional diversion points must be within the reaches where use of the bed and banks is authorized. Any diversion points outside those reaches will require an amendment to this permit;
 - f. Permittee shall maintain the approved daily accounting/delivery plan in electronic format and make it available to the general public during normal business hours and to the Executive Director upon request. Modifications or changes to the plan must be approved by the Executive Director.
- 2) Permittee may not exercise a priority call on water rights in the Brazos River Basin with priority dates senior to October 15, 2004 for purposes of increasing storage in and/or diversion from Permittee's system reservoirs where drawdown of Permittee's system reservoirs is caused by compliance with the terms and conditions of this permit.
 - 3) The request for operational flexibility to use any source of water available to Permittee to satisfy the diversion requirements of senior water rights to the same extent that those water rights would have been satisfied by passing inflows through the Permittee's system reservoirs on a priority basis is granted, but limited as follows:
 - a) To water previously stored in Permittee's reservoirs as documented in the accounting/delivery plan required in Special Condition 5.C.1 above;
 - b) Use of this option shall not cause Permittee to be out of compliance with Special Condition 5.C.1. and Special Condition 5.C.2.
 - 4) Permittee may divert water from storage in its permitted reservoirs and store that water in Permittee's other reservoirs for use within the Permittee's service area so long as all diversions and storage are included

in and comply with the provisions of the accounting/delivery plan required by Special Condition 5.C.1. above.

- 5) The total amount of water diverted and released from Permittee's system reservoirs pursuant to the authority of Permittee's existing water rights in any year for each authorized purpose of use may not exceed the cumulative authorized total for each purpose until Permittee applies for and is granted amendments to the underlying authorizations.
- 6) Permittee is required to comply with the existing System Operation Order and certificates of adjudication requiring Permittee to exclude tributary reservoirs from operation of the system during any period of time in which Permittee's permitted storage space in that reservoir is less than 30% full (until all system reservoirs are below 30% capacity, at which time the reservoir can resume system operation), until such time as Permittee submits, and the Commission approves, a Water Management Plan for the Brazos River Basin which details how such limitations will be altered. Any alterations to the limitations must be in compliance with the accounting provisions required in Special Condition 5.C.1 above.
- 7) Permittee is required to comply with the existing limitations on diversion from the Brazos River in Permit No. 2925A until such time as Permittee submits, and the Commission approves, a Water Management Plan for the Brazos River Basin which details how such limitations will be altered. Any alterations to the limitations must be in compliance with the accounting provisions required in Special Condition 5.C.1.
- 8) Until such time as the ports are closed on the dam impounding Allens Creek Reservoir, authorized by Water Use Permit No. 2925, Permittee may impound and divert additional unappropriated water as specified in Paragraph 1.A.2 subject to Special Conditions 5.C.1 through 8 above.
- 9) Prior to diversion of water authorized by this permit below USGS Gage 08114000, Brazos River at Richmond, Permittee shall submit to the Executive Director, for review and approval, a method to extend the requirements of 5.E.5 and 5.E.7 to or below this point.

D. WATER MANAGEMENT PLAN SPECIAL CONDITIONS

- 1) Permittee shall prepare and submit to the Commission, a Water Management Plan (WMP) which shall include, in addition to the specific requirements listed below in Special Condition 5.D.4., such studies and other information as may be required by the Commission to demonstrate Permittee's compliance with and its ability to comply with all of the Special Conditions included in this permit.
- 2) The initial proceedings to consider the adoption of the WMP, and any major amendment thereof, shall be pursuant to contested case procedures. Any proceeding to consider the adoption or major amendment of the WMP shall be preceded by notice and opportunity to request a hearing, in accordance with the Commission's regulations applicable to water rights permitting proceedings. The WMP shall

provide an adaptive management strategy for instream flow requirements and water supply and thus may be amended from time to time upon the request of Permittee, in accordance with the schedule set out in Special Condition 5.D.3. below, or on the Commission's own motion. The initial accounting/delivery plan shall be submitted for approval as part of the initial WMP. If the approved WMP describes the specific methodologies to be utilized, subsequent addition of diversion points within the authorization of this permit, modifications of volumes of return flows to account for amendments or modifications of discharge permits or new discharge authorizations, modification of the accounting/delivery plan approved by the Executive Director, and similar modifications specifically provided for in the WMP are considered minor revisions of the WMP.

- 3) An initial application for approval of the WMP shall be submitted to the Executive Director not later than three years after the date that this permit becomes final and non-appealable. Permittee shall take the necessary steps to ensure that the application for the WMP is administratively and technically complete within one year after the initial submission of the application to the Executive Director. Deadlines established in this provision may be extended by the Executive Director. At minimum, every ten years after approval of the initial WMP, Permittee shall submit to the Executive Director an application for reconsideration or amendment of the approved WMP.
- 4) The issues addressed in the initial application for approval of the WMP shall include, but not be limited to, the following:
 - a. Accounting/delivery plans (including return flow accounting plans);
 - b. Consideration of adding, deleting, or modifying the measurement points and flow levels described in 5.E.5 and 5.E.7.;
 - c. Consideration of establishing diversion rate trigger levels for high flow pulse (HFP) requirements, included in 5.E.7, below which the requirements of 5.E.7 would not apply;
 - d. Establishment of a Brazos River Basin environmental flow study program identifying environmental flow studies to be conducted on specified reaches and the estimated time for completion of the studies. The program shall include such studies necessary to comply with Special Conditions 5.E.1 and 5.E.16. Permittee shall use the program studies to evaluate the need for instream flow protection for the mainstem Brazos River and tributaries impacted by the diversion and storage of water authorized by this permit;
 - e. Development of operating guidelines to manage the frequency and magnitude of reservoir level fluctuations to avoid or

minimize impacts on fisheries. The operating guidelines may be subject to temporary suspension if necessary for water supply purposes;

- f. Consideration of establishing maximum diversion rates for diversions of water authorized in this permit;
 - g. Development of operational and accounting criteria, in addition to that specified in 5.A.1, 5.B.3, and 5.C.1, to address uncertainty in forecasting and accounting for HFPs in a manner that balances the risks and benefits between water supply and environmental flow protection;
 - h. Consideration of revised storage triggers provided for in 5.E.3 and 5.E.4, and the process for recalculating those triggers;
 - i. Consideration of alteration of 5.C.6 relating to capacity limitations on tributary reservoirs. Should the existing 30% limitation be modified for any of Permittee's system reservoirs, Permittee shall apply to amend the water right authorizing that reservoir;
 - j. Establishment of a mechanism to determine the amount of firm and non-firm water available at specific locations, taking into account available return flows;
 - k. Development and implementation of a specific adaptive management strategy for meeting instream flow requirements consistent with providing water supplies. The adaptive management strategy shall include a monitoring program for assessing impacts on instream uses and address short and long term impacts to economically and ecologically important stream fisheries, unique aquatic communities and species, and water quality.
 - l. Development of a method to determine the amounts of firm and interruptible water used by Permittee directly or through Permittee's contracts for such water. Because the amounts of firm and non-firm water available are interrelated and may depend on locations and the extent to which discharged return flows are considered in this determination, the Water Management Plan shall control the amounts of firm and non-firm water available at any location.
 - m. Development of a method to determine reductions in the amount of the new appropriation authorized by this permit should return flows under TPDES permits become unavailable for diversion and use by Permittee.
- 5) Upon notification to Permittee, TPWD may petition the Commission to amend any WMP provisions related to environmental flow protection.

E. INTERIM SPECIAL CONDITIONS RELATIVE TO ENVIRONMENTAL FLOWS

- 1) The following interim conditions are preliminary and are based upon historic flow analyses, without direct relationships to the biological and environmental benefits intended to be protected; therefore, Permittee shall conduct Instream Flow Studies (Studies) on the Brazos River and on segments of major tributaries upstream of their confluence with the Brazos River consistent with and in cooperation with the Texas Instream Flow Program (TIFP). Upon completion of the Studies, Permittee shall use the results to develop environmental flow conditions to replace the interim conditions in this permit for the measurement points identified in 5.E.5. Depending upon the time of completion of the Studies, replacement of these interim conditions shall be approved in the initial WMP or through the amendment of an approved WMP. The Studies are not limited to the geographic scope of the studies currently defined for the TIFP.
- 2) Seasons are defined as Spring (March–May), Summer (June-August), Fall (September-November), and Winter (December-February). The number of seasons and the months representing each season are subject to revision in the WMP based on best available science and information at the time of such revision.
- 3) Total storage in Permittee’s system reservoirs is a trigger for determining instream flow requirements and is subject to revision in future Water Management Plans. Subsistence flows are to be implemented when total storage in Permittee’s system reservoirs is below 60% of total capacity. “Dry” means times when the total storage in Permittee’s system reservoirs is below 74%, but more than 60% of total capacity. “Average” means times when the total storage in Permittee’s system reservoirs is at least 74%, but less than 96% of total capacity. “Wet” means times when the total storage in Permittee’s system reservoirs is at least 96% of total capacity.
- 4) Permittee shall recalculate the storage triggers specified in 5.E.3 every five years to ensure that Subsistence, Dry, Average, and Wet conditions occur at the desired frequencies. The desired frequencies are Subsistence equal to 2.5% of the time, Dry equal to 22.5% of the time, Average equal to 50% of the time and Wet equal to 25% of the time.
- 5) Until such time as the Studies are completed, the interim instream flows in the following tables apply at the following USGS gauging stations. Measurement points for instream flows are subject to change in the WMP with approval of the Executive Director. The instream flow criteria in the following tables are applicable at all times. Depending upon the hydrologic condition (Subsistence, Dry, Average, or Wet), storage of water authorized by this permit in Permittee’s system reservoirs upstream from the following flow gauging stations and the diversion and use of water pursuant to this permit at locations upstream from the flow gauging locations shall be authorized when streamflows

at the next downstream gage exceed the instantaneous flow values established in the following tables:

Instream Flow (cfs)	BRAZOS RIVER NEAR GLEN ROSE – USGS #08091000			
	Winter	Spring	Summer	Fall
Subsistence (7Q2)	15.3	15.3	15.3	15.3
Dry	39.0	45.0	33.3	62.0
Average	92.0	138.0	101.5	150.0
Wet	234.0	292.8	249.5	332.0

Instream Flow (cfs)	YEGUA CREEK NEAR SOMERVILLE – USGS #08110000			
	Winter	Spring	Summer	Fall
Subsistence (7Q2)	0.1	0.1	0.1	0.1
Dry	5.6	3.9	0.4	0.3
Average	14.0	12.0	2.5	1.8
Wet	34.0	31.0	8.9	9.6

Instream Flow (cfs)	NAVASOTA RIVER NEAR EASTERLY USGS #08110500			
	Winter	Spring	Summer	Fall
Subsistence (7Q2)	7.6	7.6	7.6	7.6
Dry	7.6	10.0	7.6	7.6
Average	15.0	24.0	7.6	7.6
Wet	36.0	43.0	7.6	7.6

Instream Flow (cfs)	LITTLE RIVER NEAR CAMERON – USGS #08106500			
	Winter	Spring	Summer	Fall
Subsistence (7Q2)	67.9	67.9	67.9	67.9
Dry	100.0	135.0	133.0	82.0
Average	200.0	365.0	260.5	152.0
Wet	475.0	730.0	500.0	342.0

Instream Flow (cfs)	BRAZOS RIVER NEAR Highbank – USGS #08098290			
	Winter	Spring	Summer	Fall
Subsistence (7Q2)	167.1	167.1	167.1	167.1
Dry	167.1	167.1	167.1	167.1
Average	220.59	344.19	323.85	225.29
Wet	672.74	759.30	780.69	508.98

Instream Flow (cfs)	BRAZOS RIVER NEAR RICHMOND – USGS #08114000			
	Winter	Spring	Summer	Fall
Subsistence (7Q2)	743	743	743	743
Dry	885	1,170	930	760
Average	1,630	2,030	1,450	1,150
Wet	2,955	3,670	2,635	2,038

6) A High Flow Pulse (HFP) is initiated when flows are greater than the 10th percentile and increase by more than 50% from the previous day, or when flows exceed the 75th percentile, regardless of the rate of change. A HFP is terminated when the flow drops below the 10th percentile or when the flow decreases from one day to the next by less than 5%, or when a succeeding pulse occurs. An entire HFP is also classified as a small flood if the maximum rate exceeds the small flood threshold at the 1.5 year recurrence interval.

7) Permittee shall meet a seasonal schedule of individual high flow pulses. Qualifying HFPs are defined as follows:

Pulse Flows (ac-ft)	BRAZOS RIVER NEAR GLEN ROSE - USGS #08091000			
	Winter	Spring	Summer	Fall
Hydrologic Condition				
Dry	2,329.6	3,208.3	2,617.2	2,211.6
Average	7,325.0	14,915.7	7,265.5	7,565.0
Wet	31,220.8	36,144.8	33,064.5	28,682.0

Peak Flows (cfs)	BRAZOS RIVER NEAR GLEN ROSE - USGS #08091000			
	Winter	Spring	Summer	Fall
Hydrologic Condition				
Dry	403	466	394	347
Average	1,120	2,070	1,320	1,040
Wet	4,945	5,265	4,370	3,525

Pulse Flow Schedule (days/# of events) BRAZOS RIVER NEAR GLEN ROSE - USGS #08091000

Hydrologic Condition	Winter		Spring		Summer		Fall	
	Dura*	Freq**	Dura	Freq	Dura	Freq	Dura	Freq
Dry	6	2	4	3	4	2	4	2
Average	7	2	6	2	6	2	7	1
Wet	13	1	10	2	11	1	11	1

*Duration **Frequency

Pulse Flows (ac-ft) YEGUA CREEK NEAR SOMERVILLE – USGS #08110000

Hydrologic Condition	Winter	Spring	Summer	Fall
Dry	416.6	275.7	52.4	59.2
Average	1,904.1	1,225.8	239.2	372.9
Wet	8,510.1	4,331.3	845.2	3,367.3

Peak Flows (cfs) YEGUA CREEK NEAR SOMERVILLE – USGS #08110000

Hydrologic Condition	Winter	Spring	Summer	Fall
Dry	69	51	13	10
Average	294	176	53	64
Wet	978	620	140	490

Pulse Flow Schedule (days/# of events) YEGUA CREEK NEAR SOMERVILLE – USGS #08110000

Hydrologic Condition	Winter		Spring		Summer		Fall	
	Dura*	Freq**	Dura	Freq	Dura	Freq	Dura	Freq
Dry	5	2	5	2	4	2	5	1
Average	10	1	8	1	7	1	7	2
Wet	15	1	13	1	11	1	11	1

*Duration **Frequency

Pulse Flows (ac-ft) NAVASOTA RIVER NEAR EASTERLY-USGS #08110500

Hydrologic Condition	Winter	Spring	Summer	Fall
Dry	439.3	748.3	195.9	77.1
Average	2,142.1	2,220.5	746.9	275.0
Wet	7,927.9	8,537.9	3,399.7	2,456.3

Peak Flows (cfs) NAVASOTA RIVER NEAR EASTERLY – USGS #08110500				
Hydrologic Condition	Winter	Spring	Summer	Fall
Dry	76	124	33	11
Average	298	344	142	43
Wet	1,060	1,160	592	371

Pulse Flow Schedule (days/# of events) NAVASOTA RIVER NEAR EASTERLY – USGS #08110500								
Hydrologic Condition	Winter		Spring		Summer		Fall	
	Dura*	Freq**	Dura	Freq	Dura	Freq	Dura	Freq
Dry	5	2	5	3	5	2	4	2
Average	8	2	9	2	8	2	7	2
Wet	12	1	12	1	13	1	11	1

*Duration **Frequency

Pulse Flows (ac-ft) LITTLE RIVER NEAR CAMERON – USGS #08106500				
Hydrologic Condition	Winter	Spring	Summer	Fall
Dry	4,194.4	5,641.5	3,563.3	3,511.2
Average	9,633.7	16,251.6	9,088.3	9,183.5
Wet	29,414.9	42,034.7	25,811.4	20,494.2

Peak Flows (cfs) LITTLE RIVER NEAR CAMERON – USGS #08106500				
Hydrologic Condition	Winter	Spring	Summer	Fall
Dry	604	958	577	568
Average	1,600	2,545	1,875	1,630
Wet	5,190	6,405	3,665	3,723

Pulse Flow Schedule (days/# of events) LITTLE RIVER NEAR CAMERON – USGS #08106500								
Hydrologic Condition	Winter		Spring		Summer		Fall	
	Dura*	Freq**	Dura	Freq	Dura	Freq	Dura	Freq
Dry	5	1	4	2	4	2	4	2
Average	6	1	6	2	6	1	6	1
Wet	10	1	9	1	9	1	9	1

*Duration **Frequency

Pulse Flows (ac-ft)	BRAZOS RIVER AT HIGHBANK – USGS #08098290			
Hydrologic Condition	Winter	Spring	Summer	Fall
Dry	5,113.9	6,040.7	4,784.0	3,652.4
Average	11,647.1	14,346.9	15,135.1	11,398.8
Wet	38,514.1	38,127.3	49,810.6	39,416.6

Peak Flows (cfs)	BRAZOS RIVER AT HIGHBANK – USGS #08098290			
Hydrologic Condition	Winter	Spring	Summer	Fall
Dry	1,471	1,429	1,116	714
Average	2,576	2,952	2,566	2,274
Wet	5,225	6,748	7,703	5,366

Pulse Flow Schedule (days/# of events)	BRAZOS RIVER AT HIGHBANK – USGS #08098290							
	Winter		Spring		Summer		Fall	
Hydrologic Condition	Dura*	Freq**	Dura	Freq	Dura	Freq	Dura	Freq
Dry	3	1	3	3	3	3	3	2
Average	4	1	4	3	5	2	5	2
Wet	7	1	7	1	8	1	9	1

*Duration **Frequency

Pulse Flows (ac-ft)	BRAZOS RIVER NEAR RICHMOND – USGS #08114000			
Hydrologic Condition	Winter	Spring	Summer	Fall
Dry	36,265.8	44,667.8	38,181.1	22,457.9
Average	90,287.6	101,405.0	77,176.9	56,162.0
Wet	297,550.4	270,153.7	166,115.7	146,866.1

Peak Flows (cfs)	BRAZOS RIVER NEAR RICHMOND – USGS #08114000			
Hydrologic Condition	Winter	Spring	Summer	Fall
Dry	3,748	5,640	4,880	2,500
Average	9,670	10,200	8,830	7,730
Wet	19,500	19,150	15,300	13,175

Pulse Flow
Schedule (days/#
of events)

BRAZOS RIVER NEAR RICHMOND – USGS #08114000

Hydrologic Condition	Winter		Spring		Summer		Fall	
	Dura*	Freq**	Dura	Freq	Dura	Freq	Dura	Freq
Dry	5	1	5	1	4	1	4	1
Average	8	1	7	1	7	1	7	1
Wet	16	1	13	1	12	1	11	1
	*Duration	**Frequency						

- 8) Except under Subsistence conditions, diversion or storage of water upstream from defined measurement points under the authority of this permit shall be authorized during a pulse when the volume or duration following peak flow of the individual pulse exceeds the individual pulse criteria, or when the number of pulse events in that season exceeds the pulse frequency criteria. When a Qualifying HFP is passed or provided for at one of the six defined measurement points it may be used as credit for meeting one seasonal HFP frequency requirement.
- 9) For streamflow events that meet the requirements of Special Condition 5.E.5, Permittee may temporarily impound all flows in excess of the instream flow requirement. If the streamflow event provided a Qualifying HFP, flow may need to be passed downstream for environmental needs, subject to seasonal requirements in Special Condition 5.E.7 above. If it did not, then Permittee may retain the impounded water for water supply purposes. Once the required number of HFPs is met, Permittee may divert or impound all subsequent HFPs for use as water supply as long as instream flow requirements specified in Special Condition 5.E.5 are met.
- 10) For streamflow events that meet the requirements of Special Condition 5.E.6, but do not meet the minimum requirements of a Qualifying HFP, Permittee may impound flows in excess of instream flow requirements and shall record the impounded volume in its accounting/delivery plan. At such time as the cumulative volume of streamflow events exceeds the volume of a Qualifying HFP, Permittee may release such a pulse to the environment. Such a release will result in a credit for a Qualifying HFP.
- 11) If the streamflow event is designated an HFP but ultimately does not meet the minimum requirements of a Qualifying HFP, the volume passed shall be recorded in the accounting/delivery plan. At such time as the cumulative volume of such pulses exceeds the volume of a Qualifying HFP, Permittee will be credited with one Qualifying HFP (even if the duration, peak flow, etc. characteristics were not met).

- 12) For purposes of determining satisfaction of Qualifying HFP criteria, each season is accounted for independently. There is no carry-over from season to season, either in regard to exceeding or not meeting HFP requirements. In the event there are seasons where the requisite number or volume of HFPs do not occur naturally, the Permittee is not obligated to meet the seasonal HFP requirements. In the event that a pulse extends across seasonal boundaries, it will be accounted in the season in which it ends.
- 13) Seasonal HFP requirements are to be met using streamflow events with peak flows less than the 1.5-year return interval; however, streamflow events with both peak flows that exceed the 1.5-year return interval and satisfy the requirements of a Qualifying HFP may be classified as both overbanking flows and an HFP.
- 14) Special Conditions 5.E.6 - 5.E.13, relating to High Flow Pulses are subject to Special Condition 5.D.4, relating to the contents of the initial application for approval of the WMP.
- 15) In addition to the measurement points and requirements specified in Special Conditions 5.E.5 and 5.E.7 above, Permittee is prohibited from diverting and storing water authorized by this permit upstream of the following gages unless streamflow at the following gages meets or exceeds the values as follows:

Gage Name	Gage #	7Q2 Value (cfs)
Brazos River near Palo Pinto	08089000	32.0
Aquilla Creek above Aquilla	08093360	0.1
Brazos River near Aquilla	08093100	26.0
Leon River near Belton	08102500	4.7
Leon River near Gatesville	08100500	4.7
Lampasas River near Belton	08104100	4.8
N Fork San Gabriel River near Georgetown	08104700	1.1
San Gabriel River at Laneport	08105700	3.6

- 16) Permittee, in cooperation with TPWD and the Commission, shall conduct Monitoring Studies to assess instream flow protection at the water quality protection measurement points identified in 5.E.15. These Monitoring Studies shall collect baseline data on the biology, habitat, water quality, hydrology, ecosystem health and other environmental factors of the stream segment between the water quality protection point and the immediate downstream measurement point. If baseline data is sufficient to determine instream flow protection needs, and such criteria are determined to be necessary, the data shall be used to develop criteria to replace the values in 5.E.15. If the results of the Monitoring Studies indicate that additional study is needed, Instream Flow Studies shall be conducted to determine appropriate instream flow protection criteria for the water quality protection points and the results of such Instream Flow Studies shall be used to develop criteria to replace the values in 5.E.15. Depending upon the time of completion of the Monitoring Studies or applicable Instream Flow Studies, modification of the values in 5.E.15 shall be approved in the initial WMP or through the amendment of an approved WMP. As part of the study and analysis required in this provision, Permittee shall perform and complete a Little River watershed study (including all points identified in 5.E.15 within the Little River watershed) prior to filing its application for approval of the initial WMP. If Permittee does not complete the Little River watershed study prior to filing its application for approval of the initial WMP, Permittee shall not divert or impound water authorized by this permit from the Little River watershed until that study is completed and results considered in an application to amend the WMP.
- 17) Permittee shall consult with the U.S. Army Corps of Engineers on federal projects to determine whether overbanking flows can be safely managed to maintain a sound ecological environment.
- 18) The requirements of these Special Conditions apply only to diversion and storage under the authority of this permit and do not address or limit diversion and storage of water authorized by other water rights held by Permittee.
- 19) These special conditions are subject to adjustment by the Commission if the Commission determines, through an expedited public review process, that such adjustment is appropriate to achieve compliance with applicable environmental flow standards adopted pursuant to Texas Water Code § 11.1471. Any adjustment shall be made in accordance with the provisions of Texas Water Code § 11.147(e-1).

This permit is issued subject to all superior and senior water rights in the Brazos River Basin.

Permittee agrees to be bound by the terms, conditions and provisions contained herein and such agreement is a condition precedent to the granting of this permit.

All other matters requested in the application which are not specifically granted by this permit are denied.

This permit is issued subject to the Rules of the Texas Commission on Environmental Quality and to the right of continuing supervision of state water resources exercised by the Commission.

For the Commission

ISSUED: