

**TCEQ DOCKET NO. 2005-1490-WR
SOAH DOCKET NO. 582-10-4184**

APPLICATION BY THE BRAZOS	§	BEFORE THE
RIVER AUTHORITY FOR WATER	§	TEXAS COMMISSION ON
USE PERMIT NO. 5851	§	ENVIRONMENTAL QUALITY

BRAZOS RIVER AUTHORITY'S EXCEPTIONS TO THE PROPOSAL FOR DECISION

Douglas G. Caroom
State Bar No. 03832700

Susan M. Maxwell
State Bar No. 24026869

Emily W. Rogers
State Bar No. 24002863

BICKERSTAFF HEATH DELGADO ACOSTA LLP
3711 S. MoPac Expressway
Building One, Suite 300
Austin, Texas 78746
Telephone: (512) 472-8021
Facsimile: (512) 320-5638

I. INTRODUCTION

The Brazos River Authority (“BRA”) believes that the Proposal for Decision (“PFD”) presented by the Administrative Law Judges (“ALJs”) does a very good – but not perfect – job of addressing this unique and complex case. With relatively minor modifications, BRA believes that the PFD can serve as a workable basis for further proceedings in this matter.

The primary difficulty is the ALJs’ treatment of the two-step application process. BRA proposed, and the Executive Director (“ED”) agreed, that a two-step process was appropriate – a process by which a permit would be issued and an appropriation of water made without allowing diversion or use of that water until completion of a Water Management Plan (“WMP”). The two-step process is necessary because BRA first needs to know the amount of water that is appropriated and the basic conditions of the appropriation before it can develop the WMP, which integrates operations under the new system appropriation with those under BRA’s existing water rights. To determine the water available for appropriation under the new System Operation Permit, BRA and the ED utilized four “control points” for the hydrologic analysis. The Protestants complain, and the ALJs agree, that the necessary statutory analysis of water availability and potential impairment of existing water rights can only be done when the actual diversion points for the integrated system are used in the analysis.

If the Protestants and the ALJs are correct in their legal analysis, we are presented with a classic “chicken and egg” conundrum: the WMP cannot be completed without knowing the amount of water appropriated and conditions applicable to that appropriation, but the appropriation cannot be made without utilizing the diversion points and operational procedures that will be developed in the WMP. This is not a good outcome for the State of Texas,

particularly when the ALJs acknowledge that “there is an immediate need” for the water supply BRA seeks¹ and the application is “strongly in the interest of the public.”²

BRA submits that there is a way out of this conundrum, consistent with both the ALJs’ concerns and the Protestants’ objections to the two-step process. As discussed below, the Commission could enter an interim order addressing issues presented by the PFD (including those necessary for development of the WMP) and providing a schedule for a subsequent contested case hearing on the WMP. In view of the ongoing extreme drought conditions in the Brazos River Basin and throughout the State, this would allow the development of badly needed water supplies on a timely basis while satisfying objections made by the Protestants and the ALJs to the two-step process. The key issues that need to be resolved for development of the WMP are the applicable environmental flow requirements and the amount of water appropriated at one or more of the “control points” (BRA recommends the Richmond gage – one of the control points examined). Determining the amount of water appropriated requires addressing contested issues concerning the treatment of return flows, reservoir capacity, and Allens Creek Reservoir.

Use of an interim order to address these issues would make water available under the System Operation Permit years sooner than would be the case under the originally proposed two-step process because it would avoid the time and expense of a possible appeal of the Commission’s decision to issue a permit at the conclusion of the first step. Such an appeal could delay by several years the consideration of the WMP and the ultimate availability of the new water supply.

¹ PFD at 112.

² PFD at 120.

Besides this modification of the PFD's recommendation concerning the two-step process, BRA believes that additional clarification or correction regarding the PFD's treatment of return flows is required. Both issues are discussed in more detail below in BRA's exceptions to the PFD.

II. ARGUMENT AND AUTHORITIES

A. The Two-Step Process

1. Background

Pursuant to the existing System Operation Order,³ BRA operates its fifteen existing water rights to supply almost 700,000 acre-feet of water per year (af/yr) under 149 long-term water supply contracts to almost 100 customers throughout the Brazos River Basin.⁴ With the exception of a limited number of older contracts, water is not supplied to individual customers from a specific reservoir or water right; instead, water authorized by any of BRA's water rights (BRA's existing "system") may be utilized to satisfy a particular customer at a given time.⁵ Each of BRA's existing water rights was issued individually for the amount of water that it could supply on a stand-alone basis. However, operated as a system, these reservoirs are able to supply more water reliably than the total of the individual water rights.⁶ By its System Operation Permit application, BRA is seeking to obtain authorization for the additional water supply that can be produced through operation of its reservoirs as a coordinated system, as well as unappropriated

³ See BRA 7-A-3. All of BRA's existing water rights and its System Operation Order were judicially noticed pursuant to the ALJs' Order No. 7.

⁴ BRA 10 – 8:1-17, 17:13 to 13:3; BRA 35-9:11-14.

⁵ BRA 5. All of BRA's existing water rights are held as assets of BRA's Water Supply System ("System").

⁶ BRA 27 – 18:1-7; BRA 1 – 39:20 to 40:2; BRA 15 – 34:7-17, 88:5-12.

water that can be made reliably available with back-up stored water available from BRA's system, and return flows that are now, and will in the future be, discharged into the basin.⁷

The water supply to be appropriated under BRA's System Operation Permit application will become "system water"⁸ and be used to satisfy both existing and new water supply contracts (as will the water already appropriated under BRA's existing permits). As recognized by the PFD, the amount of water that can be made available by system operation varies, depending upon the location – more water is available lower in the basin than upstream or on tributaries. By seeking quantification of the System Operation Permit's appropriation in the lower basin, BRA would obtain authority to use the maximum amount of water that could be made available through system operation. This appropriation would define the water right for purposes of operations, modeling, and future permitting. Once that appropriation is defined, the WMP will adjust it to reflect current BRA operations throughout the basin (and further adjusted as those operations change in the future). Before the right can be adjusted to reflect current/actual operations, however, it must be defined. That is the first step of the two-step process proposed by BRA and endorsed by the Executive Director. Significantly, that first step also requires a determination of the environmental flow requirements applicable to the appropriation and a determination of whether return flows discharged to the river are available for appropriation as requested by BRA, as both these factors will significantly affect water availability throughout the basin.

The PFD suggests that BRA's application cannot be considered complete, and that water availability and the potential impact on existing water rights cannot be evaluated, without identification of all diversion points that will be utilized as well as the rates of diversion at each

⁷ BRA 15 – 34:1-6.

⁸ All of BRA's existing water rights are held as assets of BRA's Water Supply System ("System").

point. BRA did not consider this to be a problem because the permit would not have authorized use of water at any of these diversion points until after they had been identified, evaluated and approved as part of the WMP. While, as discussed below, BRA believes that more than adequate Commission authority and precedent exists for the two-step process, another vehicle exists by which the ALJs' issues with the two-step process might be addressed. That vehicle is an interim order of the Commission, defining the downstream appropriation of the System Operation Permit. With the appropriation defined, BRA would be able to develop the WMP and address specifically the current and anticipated diversion points for the BRA system.

There is legal authority for such an order. The Commission has authority pursuant to Texas Water Code §§ 5.102, 5.116, and 11.133 to issue an interim order regarding certain factual and legal issues in a case. In fact, utilizing an interim order would be much like consideration and entry of an order in response to certified questions.⁹ In the certified question process, an adequate legal and factual record is developed to allow the Commission to determine specified issues. Following resolution of those issues, the matter is remanded to SOAH for further proceedings, consistent with the Commission's interim ruling, that lead to a final order. The ALJs' PFD clearly provides an adequate development of the key legal and factual issues sufficient for the Commission to address them in an interim order.

BRA submits that such an interim order, defining its downstream appropriation, is legally authorized and very much in the public interest at this time, while Texas is experiencing a severe drought and it is possible to make a substantial additional supply available without delaying for construction of a major reservoir and further environmental permitting.

⁹ See 30 TEX. ADMIN. CODE ("TAC") § 80.131.

2. Evaluation of Alternatives, Including Interim Order

The ALJs suggest that three alternatives are open to the Commission, given the shortcomings the ALJs perceive to exist in the two-step process: (a) denial of the permit application; (b) remand of the application for further hearings on the WMP before a final decision; and (c) issuing a permit that appropriates water but authorizes use only at the four control points.¹⁰ From BRA's perspective, the ALJs' first alternative (denial of the permit application) is not a viable option. First, as explained below, it is based upon an erroneous legal conclusion – more than adequate authority and Commission precedent exists to confirm the two-step process. Second, even if the PFD is correct in its criticism of the two-step process, BRA's application presents a needed water supply, in the public interest, and shown to be available at the four control points. Substantial resources have been committed by BRA, the Executive Director, and all parties have invested heavily to develop the record and get to this point. It makes no sense to throw away that investment and that needed water supply.

The ALJs' second alternative, remanding the application for a hearing on the WMP, is only viable if combined with a Commission ruling that determines the amount of water available for appropriation and the conditions that apply to that appropriation. Without this information, the WMP amounts to a very complex "shot in the dark." This may appeal to the Protestants, but is not at all reasonable from BRA's point of view. Adding an interim order to the ALJs' second recommendation makes it not only a viable alternative, but a desirable one.

The ALJs' third alternative, issuing a permit that authorizes use at only the four control points, is also a viable alternative. It recognizes that, even utilizing the ALJs' standards for the two-step process, sufficient evidence was presented to authorize an appropriation at the four

¹⁰ PFD at 4.

control points. From BRA's point of view, this is a workable option and it need only appropriate water and authorize use at the downstream Richmond control point.¹¹ The drawback, as compared to the second alternative, or the interim order alternative, is that the permit would be subject to appeal, with the inherent cost and delay that necessarily goes with it, which the Protestants complain is one of the problems with the two-step process.

BRA suggests a fourth alternative approach (or a modification of the ALJs' second alternative) that the Commission may take in response to the ALJs' proposed ruling regarding the two-step process: issue an interim order addressing at least the downstream appropriation at the Richmond control point and environmental flow requirements throughout the basin. While BRA believes that it would be efficient and productive to rule on all of the issues presented by the PFD, these are the two issues essential to development of the WMP. It should be recognized, however, that a determination of the downstream control point appropriation necessarily involves several of the other contested issues discussed in the PFD.

Of these alternatives, BRA believes that the issuance of an interim order by the Commission is the best alternative.¹²

3. Issues for Inclusion in the Interim Order

If the Commission chooses to address the issues raised by the PFD through entry of an interim order, *what issues should be addressed by the interim order?* The first and simplest answer to that question is "all of them." To the extent that the Commission rules on an issue,

¹¹ The Gulf of Mexico control point would be preferable because of its location further downstream, but environmental flow requirements were not developed at the Gulf of Mexico control point. Thus, Richmond is the furthest downstream control point with established environmental flow requirements. The other two control points, Glen Rose and Highbank, were proposed by BRA originally to illustrate the fact that there is less water available under the System Operation Permit higher in the basin. BRA 8; BRA 18; BRA 23.

¹² BRA's preference for an interim order should not be considered in any way to be an acceptance of the Protestants' and the ALJs' position that the two-step process is legally flawed. To the contrary, BRA believes that the two-step process is necessary and appropriate in many instances. In this case, however, the interim order amounts to a quicker and more efficient way of accomplishing the same thing.

that ruling becomes “law of the case” and is normally not subject to further dispute in the proceeding. So a ruling on all issues presented by the PFD will effectively preclude those issues from being raised when the case is remanded for further hearings on the WMP and greatly increase the efficiency of the hearing. BRA supports this approach.

If the Commission prefers to rule on only those issues that are necessary for development of the WMP, leaving all remaining unaddressed issues for final resolution when the case returns following hearing on the WMP, BRA suggests that the interim order answer the following questions to establish the Commission’s position regarding the PFD’s treatment of those issues:

1. *Are the interim environmental flow requirements in the draft permit acceptable?*

The environmental flow requirements throughout the basin (as reflected in both draft permits attached to the PFD) must be known if the WMP is to model availability and determine the amount of water available at different locations throughout the basin.

BRA Position: BRA concurs with the PFD’s treatment of environmental flow requirements and proposed rulings thereon.¹³ The environmental flow provisions in the Executive Director’s and BRA’s draft permits are essentially the same, both regarding interim environmental flow standards and their treatment in future WMPs.¹⁴

2. *Richmond Appropriation*

a) *How are return flows treated under state law?*¹⁵

The Commission must resolve how return flows will be treated so that the quantity of water available for appropriation is known and so that the operational requirements relative to those flows can be defined. The Commission is

¹³ BRA’s concurrence with the PFD in this regard does not extend completely to the PFD’s treatment of all of Dow’s water quality arguments which, for the most part, BRA does not consider to be environmental flows issues. However, BRA is in agreement that water quality standards are appropriately included.

¹⁴ The only significant difference between provisions of the BRA Draft Permit and the ED’s Draft Permit is whether environmental flow requirements should apply for only the next downstream gage or for all downstream gages.

¹⁵ See PFD at 137-156.

presented with three alternatives for handling return flows, which include treating the appropriation of return flows in one of the following ways:

- (1) as a bed and banks authorization, as reflected by the ED's Draft Permit,
- (2) as a new appropriation, as reflected by the BRA Draft Permit, or
- (3) as a combination of the two, as reflected by the PFD.

BRA Position: BRA excepts to the PFD's treatment of return flows; those exceptions are addressed below and will not be repeated here. Return flows should be treated as state water available for appropriation following discharge into a watercourse, as reflected by the BRA Draft Permit.

- b) *Should the appropriation define water available as "firm" and "interruptible" (see ED's Draft Permit) or leave the appropriation undefined for determination as part of the WMP (see BRA Draft Permit)?¹⁶*

The PFD suggests that BRA could choose between the two draft permits in this respect.¹⁷ However, a decision on the issue regarding the return flows will affect this issue as well.

BRA Position: BRA would prefer that the values from its draft be utilized and that the determination of firm/interruptible water be deferred to the WMP. The BRA Draft Permit, as the Executive Director determined to be appropriate if return flows were treated as state water available for appropriation, does not attempt to make the firm/interruptible determination at this stage. If the Commission agrees with BRA that return flows, once returned to a state water course, are state water, BRA's Draft Permit properly defines the amount of the unappropriated water, which is consistent with the ED's and PFD's position regarding application of TCEQ Rule 30 TAC § 297.42(g).¹⁸

- c) *Should System Operation Permit diversions for Allens Creek be limited by the diversion limitations in the Allens Creek permit?¹⁹*

BRA Position: BRA concurs with the PFD's determination that the 202,000 af/yr limitation contained in the Allens Creek permit is not applicable to diversions under the System Operation Permit.

¹⁶ See PFD at 156.

¹⁷ See PFD at 156.

¹⁸ *Id.*

¹⁹ See PFD at 173-175.

- d) *Should a separate (term) authorization be allowed prior to construction of Allens Creek Reservoir?*²⁰

BRA Position: BRA believes that its and the Executive Director’s analyses are correct and completely consistent with the provisions of the Texas Water Code. To address the ALJs’ concern that the authorization in the draft permits is not clearly identified as an authorization for a term of years, the language in the draft permit could be modified to state that Section 1.A.2 is an authorization “for a term of 25 years, or until Allens Creek Reservoir is constructed, whichever occurs first.” If this is not acceptable, BRA has no serious objection to deleting the “prior to construction of Allens Creek Reservoir” authorization entirely.²¹

- e) *Should reservoir capacities be reduced from authorized capacity to current capacity in determining water available for appropriation?*²²

BRA Position: BRA believes that the Executive Director’s approach of using authorized storage capacity for modeling purposes is reasonable and appropriate. The record in this case lacks evidence on current capacity of reservoirs other than Possum Kingdom Reservoir. Making the appropriation based on authorized capacity, with subsequent periodic adjustments in the future via the WMP and its revisions to reflect actual capacity reductions, is reasonable.²³

BRA would further suggest that the interim order address the timing of further proceedings. In light of the current extreme drought and need for additional water supplies, BRA is prepared to develop and submit the WMP on an expedited basis. BRA believes that it can develop and file the WMP for review by the Executive Director and other parties within

²⁰ See PFD at 53-60.

²¹ At pages 59-60, the PFD suggests that the solution to the perceived overstatement of water availability due to deletion of Allens Creek Reservoir from the model prior to its construction is reducing the amount of water available by 202,000 af/yr. This is incorrect. As reflected by both draft permits (Sections 1.A.1 and 1.A.2, in both drafts), two alternative appropriations are recognized: One prior to construction of Allens Creek Reservoir, and one following construction. The solution, if the Allens Creek appropriation must be included in the model, even prior to construction, is deletion of the “without Allens Creek” alternative appropriation and use of only the appropriation amount that reflects inclusion of Allens Creek in the modeling. This results in a preconstruction yield reduction of approximately 50,000 af/yr, not 202,000 af/yr. See BRA Ex. 15, at 29-30 and Tr. 2175-2176.

²² See PFD at 49-53.

²³ If the BRA Draft Permit is utilized to define the Richmond appropriation, no adjustment of the amount of water appropriated is required because the impact of reduced storage capacity is primarily upon the “firm” supply which will be determined during the WMP.

twelve (12) months from the Commission's order directing it to proceed.²⁴ BRA suggests that notice of its filing, review by the Executive Director and the subsequent administrative proceeding at SOAH could be completed within eight (8) months of that filing, if so directed by the Commission.

In light of Texas' serious drought conditions and the pressing need for additional water, BRA submits that such an aggressive schedule is justified and commits to do its very best to achieve it.

4. Exceptions to the PFD's Two-Step Ruling

a. Commission Precedent

BRA excepts to Section XIX.A of the PFD, in which the ALJs conclude that the two-step process proposed by BRA for the System Operation Permit is "unprecedented" under TCEQ statutes, rules, policies, or permitting history, as well as Section XIX.B of the PFD, in which the ALJs conclude that the first of the two steps may result in an order that is not final.²⁵ BRA has cited extensive record evidence, testimony, and case law to support a finding by the ALJs that there is precedent for the Commission to consider BRA's System Operation Permit application in a two-step process, and that each of these steps will result in a final agency order.²⁶

The most clear-cut example of the Commission's approval of use of the two-step process is found in the reuse authorization granted to the City of Irving. In that contested case, *in which use of a two-step process was a contested issue*, the Commission ruled:

²⁴ The WMP, prepared on this aggressive schedule, will necessarily focus on issues identified in the PFD as legally essential for satisfaction of statutory and regulatory requirements in order to allow diversion and use of state water. Many of the environmental studies, which require field sampling and collection of additional data, would have to be deferred until subsequent revisions of the WMP, which are required at least every 10 years according to the draft permits.

²⁵ BRA also excepts to Section VIII.C, which concludes that the two-step process makes it impossible to comply with 30 TAC § 295.7.

²⁶ See BRA Written Argument at 25-30.

The Commission's jurisdiction allows it to grant reuse authorization to Irving in a two-step process, by which Irving first obtains authorization to reuse its Lake Chapman water as developed water in the Trinity River Basin so that neither existing nor future water rights in the Trinity River Basin, nor the environment, will come to rely on its availability; and later obtains authorization for a specific reuse project after satisfying special conditions of Certificate of Adjudication No. 03-4799C and all applicable statutory and regulatory requirements.

Conclusion of Law No. 4, ED-A1 at 8. Exactly as BRA has proposed in the pending case, the Commission authorized the appropriation in the first step to determine the legal rights of the parties, then allowed the applicant to implement that appropriation in a second step.

The TCEQ has broad authority to employ a two-step permitting process that results in issuance of a permit with a condition requiring that a subsequent proceeding will amend that permit with additional terms to implement its appropriation.²⁷ In rejecting the City of Irving precedent, the ALJs adopted the Friends of the Brazos River's ("FBR") argument that the City of Irving ruling is distinguishable because it involved an amendment to an existing water right rather than a new permit. However, this is a "distinction without a difference," as the procedural facts, and reason for conducting both proceedings in two-step fashion, are nearly identical – both parties sought or seek an initial authorization so that water could be available for their future use, but that initial authorization cannot be used until a subsequent amendment of the water right authorizes the specific use intended.²⁸ This is exactly the authorization that BRA seeks, which was considered entirely appropriate by the Executive Director.

²⁷ See *City of San Antonio v. Tex. Water Comm'n*, 407 S.W.2d 752, 769 (Tex. 1969) (stating that "the Legislature has created the [TCEQ] and has entrusted it to broad discretion within certain statutory limits, in determining whether an application for a permit to appropriate and divert such waters to a particular use shall be granted or denied.").

²⁸ Particularly in light of the PFD's ruling that BRA, in seeking the appropriation for System Operation, had the option of seeking a new permit or amending its existing water rights, this suggested distinction between amending an existing permit versus applying for a new permit makes no sense. Why should BRA's decision to pursue a new permit instead of an amendment make no difference with regard to the application itself, but assume critical significance with regard to the legality of the two-step process?

The ALJs cite the same FBR argument creating a distinction between a new authorization and an amendment to distinguish the two-step permitting process used in the Gulf Coast Water Authority (“GCWA”) proceeding and the Lower Colorado River Authority (“LCRA”) proceeding.²⁹ The critical point overlooked by the PFD, however, is not the details allowing distinction between the System Operation Permit and these prior proceedings, but the similarities. In each case, the initial authorization of water use from the first step cannot be used until completion of the second step, where further detailed review of the specific use that will occur, is completed. No actual harm can occur to any party until water is stored, diverted, or used under the initial authorization, and that cannot happen until completion of the second step when all statutory and regulatory requirements will have been addressed.

BRA acknowledges that there has not been an identical proceeding to the System Operation Permit application, as do the ALJs, who note that the application is “very complex.”³⁰ However, the City of Irving, GCWA and LCRA examples demonstrate that the TCEQ is capable of exercising the “broad discretion” granted to it by the Legislature³¹ to issue a permit with a special condition requiring a second proceeding to develop a WMP or other application that amends the initial authorization or appropriation. This option should not be foreclosed to the Commission if it determines that a two-step process is the best method to craft sufficiently protective and workable permit terms and conditions for the System Operation Permit or other water rights.

²⁹ PFD at 163-165.

³⁰ PFD at 1.

³¹ *City of San Antonio*, 407 S.W.2d at 769.

b. Finality

Although the ALJs acknowledge that the question of whether the two-step process would result in a final and appealable agency order was not before them,³² BRA excepts to their conclusion in Section XIX.B of the PFD that “any order granting the SysOp Permit, as it is currently proposed, would likely not be considered to be a final and appealable order.”³³

All parties seemingly agree that the standard for finality of agency orders was set out in a “pragmatic and flexible approach” in *Texas-New Mexico Power Co. v. Tex. Indus. Energy Consumers*.³⁴ The ALJs conclude that an order on BRA’s application may not be final because it would not be “definitive in nature”³⁵ and would contain special permit conditions requiring future approval by the TCEQ.³⁶ However, permits often include special conditions that involve continuing agency oversight or resolution in subsequent proceedings before the same agency.³⁷

Further, a Commission order on the first step of the System Operation Permit application would be definitive in nature as that phrase is defined in *Texas-New Mexico Power*. The evidence developed during the hearing establishes that all statutory requirements for BRA’s Application No. 5851 are satisfied using the set of “theoretical” diversion points or control points that are reflected in the draft permits. These four points – Glen Rose, Highbank, Richmond, and Gulf of Mexico – were utilized for modeling purposes in order to determine the appropriation and reflect the varying maximum firm yield that would be available to BRA depending upon

³² PFD at 165, n 601.

³³ PFD at 173.

³⁴ 806 S.W.2d 230 (Tex. 1991).

³⁵ PFD at 170.

³⁶ PFD at 172.

³⁷ See *City of Irving’s Lake Chapman Permit*, ED-A1 at 8; see also *Office of Pub. Util. Counsel v. PUC*, 843 S.W.2d 718 (Tex. App.—Austin 1993, writ denied) (PUC order on prudence of construction expenditures was found to be final despite need for subsequent rate case to determine related controversies).

where its diversions are made.³⁸ Draft Permit No. 5851 conditionally authorizes BRA to divert water at these four points – and at the diversion points already authorized in BRA’s existing water rights³⁹ – while contemplating that, through the process of TCEQ’s approval of the initial WMP and subsequent amendments thereof, the draft permit may be amended to authorize additional, or different, diversion points based on the changing patterns of where BRA’s customers need water.⁴⁰

Based on the information contained in BRA’s application, and related modeling of the Glen Rose, Highbank, Richmond, and Gulf diversion points, the Commission is capable of fully evaluating water availability, non-impairment, and all other factors set out in Texas Water Code § 11.134 and issuing a final order on the application.⁴¹ BRA’s appropriation of water, and its related legal rights, would be *defined* by that order, satisfying the *Texas-New Mexico Power* requirements. The ALJs implicitly acknowledge this fact in recommending, as a possible course of Commission action, granting the application authorizing diversions at these four points.⁴² The Executive Director’s testimony and technical review of the application also support this conclusion. “In this application, [BRA] provided a requested amount and a point of diversion. And so as we would with any other application, we looked at the amount of water that would be available at the points requested in the application.”⁴³ In keeping with the holding of *Texas-New Mexico Power*, the application and administrative record contain sufficient information for the

³⁸ Tr. 264:7 to 265:12, 336:8-14 (Gooch); Tr. 574:11-20 (Wurbs).

³⁹ BRA 8 at ¶ 2.A; Tr. 336:24 to 337:2 (Gooch).

⁴⁰ BRA 8 at ¶ 2.A.6; ED-K at ¶ 3.A.b; Tr. 266:1-10, 338:18-25, 390:19-25 (Gooch); Tr. 1144:18 to 1145:8 (Brunett); *see also* Tr. 590:17-24 (Wurbs).

⁴¹ Tr. 2359:19 to 2360:11 (Gooch).

⁴² *See, e.g.*, PFD at 4, 30, 62, 194.

⁴³ Tr. 1930:4-9, 2139:4-8; Tr. 1930:10-20 (Alexander); Tr. 1807:22 to 1808:12 (Geeslin) (two-step process creates no problems for performing environmental analysis, and second (WMP) step would again include environmental analysis).

Commission to issue an order that is definitive, promulgated in a formal manner, imposes an obligation and fixes a legal relationship, and with which it expects compliance.

Finally, BRA respectfully excepts to the ALJs' reliance on *Texas Utilities Co. v. Public Citizen, Inc.*⁴⁴ for the proposition that completion of only the first step of a two-step process necessarily results in a non-final order.⁴⁵ That case involved the interpretation of a specific two-step process set out by statute and Public Utility Commission rule for the permitting of new electric generating plants in which the Commission first had to approve a "notice of intent" ("NOI") application before proceeding to the second step, a full hearing on the applicant's request for a Certificate of Convenience and Necessity ("CCN"). The first step, as specified by the statute and rule, intentionally does not result in a final order: "The purpose of the NOI proceeding is to identify and reject frivolous proposals, while the CCN proceeding allows an in-depth evaluation of a specific, completely designed proposal;"⁴⁶ "The Commission's rules state that the NOI findings are not final or binding."⁴⁷ *Public Citizen* does not broadly state that the first part of a two-step process can never result in a final agency order,⁴⁸ but rather that the statute and agency rule at issue in this case clearly set out that approval of an NOI was not a final order. In contrast, the first step of BRA's application, handled as a two-step process, will grant or deny an appropriation of state water and fix the legal responsibilities of the parties going

⁴⁴ 897 S.W.2d 442 (Tex.App.—Austin 1995, no pet.).

⁴⁵ PFD at 171.

⁴⁶ *Public Citizen*, 897 S.W.2d at 446.

⁴⁷ *Id.* at 447.

⁴⁸ *Public Citizen* in fact recognizes that there is a scenario, even under the statute and Commission rule that was at issue in the case, in which the "first step" NOI proceeding *would* result in a final, appealable agency order. *Id.* at 447.

forward, be definitive in nature, and include findings of fact and conclusions of law that are binding and with which the TCEQ will expect compliance.⁴⁹

B. Return Flows

BRA excepts to the truly unique solution that the ALJs have come up with to the question of the availability of return flows for further appropriation following discharge into a state watercourse, and to resolution of potential conflicts between Texas Water Code §§ 11.042(c) and 11.046(c).⁵⁰ Two relatively well documented and established views regarding the availability of return flows are reflected by BRA's and the Executive Director's positions, set out in the PFD at pages 141-147. These two views are also reflected by BRA Exhibit 67, an appendix to the 2007 Texas Water Plan discussing the issue and presenting alternative views, attached hereto as Attachment 2.

Under BRA's view, return flows become state water following discharge into a state watercourse (unless TCEQ has authorized reuse by the discharger) and are available for appropriation in the same way and to the same extent that other state water is available. Under the Executive Director's view, return flows are not generally available for appropriation as state water, but are reserved for subsequent reuse by the discharger, water right holder, or one with contractual rights derived from them.

The ALJs accept much of the "state water" argument advanced by BRA. They recognize that § 11.042(c) necessarily requires that an applicant have some ownership interest in the water the applicant seeks to transport via a bed and banks authorization.⁵¹ Similarly, the ALJs

⁴⁹ Significantly, *Texas Utilities Co. v. Public Citizen, Inc.* provides authority for the Commission to issue a nonappealable interim order if the order clearly states the Commission's intent that it is of an interim and nonappealable nature.

⁵⁰ PFD at 137-156.

⁵¹ PFD at 149.

recognize that return flows, following discharge into a watercourse and mingling with other state water, become “state water” available for appropriation.⁵² However, under the ALJs’ view, § 11.046(c)’s statement that return flows following discharge are subject to “appropriation by others” operates as an exclusionary limitation that prevents BRA from seeking to appropriate return flows that are derived from water supplied by BRA pursuant to its existing water rights. Instead, the ALJs would require that BRA seek authorization to reuse return flows derived from BRA water rights via § 11.042(c) as a bed and banks authorization.⁵³

In some respects, one would think that this ruling should be acceptable to BRA – BRA is able to obtain authorization to use all the return flow discharges sought in its application (and all return flows, historic and future, are subject to environmental flow requirements and senior water rights, as they would be if they were considered unappropriated water available for appropriation by BRA). However, this is only true if the accounting requirements applicable to return flow discharges are handled as BRA proposes (tracking discharges and their impact on available water supplies) as opposed to accounting as the Executive Director believes is appropriate (accounting for each discharge individually from point of discharge to point of diversion).⁵⁴

BRA would suggest, however, that the ALJs’ proposed ruling is unworkable as a precedent that might be applied in other river basins. Because this is the first time the return flow issue has been presented to the Commission for ruling, the Commission should provide the clarification that is needed on this issue statewide.

⁵² PFD at 150.

⁵³ PFD at 150-151.

⁵⁴ BRA requests clarification of the ALJs’ intent in this regard. Because under the ALJs’ proposal all return flow discharges would be subject to environmental flow requirements and senior water rights, there appears to be no necessity to account for return flows separately. Nevertheless, a ruling on this point is essential for BRA to proceed with development of the WMP.

BRA believes that the ALJs' treatment of return flows is flawed, both legally and practically. From a legal point of view, it makes no sense to say that return flows are state water but not available for appropriation by the holder of the underlying water right. No purpose is served by such an exception. The phrase "by others" simply implies recognition that the water right holder also has the ability to seek an amendment of the underlying permit (as recognized by § 11.046(c)) in addition to seeking authorization as a new appropriation.

No practical purpose is served by requiring the holder of the underlying water right to seek a bed and banks authorization. In cases other than BRA's application, (which the ALJs construe to require the imposition of environmental flow requirements and senior water rights on future discharges), requiring a bed and banks permit will set up the accounting requirements and distinction proposed by the Executive Director, by which existing discharges are subject to environmental flow requirements and senior water rights, but future discharges are not. BRA submits that such a distinction and such separate accounting will only serve to complicate enforcement of water right priorities during times of drought.

The simplest and most workable rule going forward is that return flows should be considered state water following discharge into a watercourse.

C. Transcript Costs

BRA excepts to the ALJs' conclusion in Section XXVI of the PFD that BRA should pay the full transcript costs of this proceeding.⁵⁵ The ALJs base this determination on their conclusion that "the Application cannot be approved," yet one of their three alternative recommendations to the Commission is to grant the application based on the modeled Glen Rose, Highbank, Richmond and Gulf diversion points, and another involves further proceedings to

⁵⁵ PFD at 193.

develop the WMP and sides with BRA on many disputed issues. Two of these three options, therefore, result in eventual approval of the application. On this basis, BRA suggests (a) if the Commission chooses to adopt an interim order and remand for WMP hearings, allocation of transcript costs can be deferred until the final order; or (b) if the Commission chooses to issue a permit for one or more control points, transcript costs should be allocated as discussed below.

The ALJs note that the Protestants “fully participated in the hearing and benefited from the transcript.”⁵⁶ Under BRA’s proposed cost allocation, the Protestants collectively would pay 50% of transcript costs despite utilizing 66.5% of the total hearing time, including duplicative friendly cross, while failing to avail themselves of discovery that could have reduced the duration of the hearing.⁵⁷ Evaluating the factors enumerated in TCEQ Rule 80.23(d), it is appropriate and reasonable to assess half of the transcript costs to the Protestants, who are responsible for the majority of the length of the record, fully participated in the hearing, benefited from the transcript, and are financially able to share the cost. In the alternative to BRA’s proposal on sharing transcript costs, it would be reasonable to assign some percentage to the Protestants, as FBR themselves acknowledge that other TCEQ proceedings have ascribed 15% of these costs to a protesting party.⁵⁸

III. CONCLUSION

BRA respectfully requests the Commission to direct the ALJs to prepare an interim order that includes the following:

⁵⁶ PFD at 191.

⁵⁷ See BRA Post-Hearing Reply Argument at 59; see also Tr. 1729:2-21 (ALJ Newchurch imposing a time limitation on FBR’s cross-examination because “[w]e’re not getting anything in the record that’s useful”).

⁵⁸ PFD at 193. If the Commission determines that issuing an interim order regarding the application, the decision regarding the appropriate assignment of transcript costs should either be delayed until the end of the entire proceeding, or be determined, but the final decision and payment delayed until the conclusion of the hearing on the WMP.

- 1) Approval of interim environmental flow conditions reflected in the ED and BRA Draft Permits;
- 2) Authorization of an appropriation of 1,001,449 af/yr at the Richmond gage, as interruptible supply,⁵⁹ to be classified as firm and non-firm supply as part of the WMP, taking into account the location of use and other factors, including the following:
 - a. The availability of current and future return flows as requested in BRA's application;
 - b. Adjustment of reservoir storage capacities to reflect current levels of sedimentation as part of the WMP process; and
 - c. No limitation on diversions from the Brazos River into Allens Creek Reservoir under the authorization of the System Operation Permit;
- 3) All other rulings, with the exception of transcript cost allocation, as reflected by the PFD;
- 4) Generally approving preparation of the WMP as described in the draft permit attached hereto as Attachment 1;⁶⁰
- 5) Staying proceedings in the matter for 12 months to allow BRA to develop and submit the WMP to the Executive Director and other parties for review; and
- 6) Directing SOAH to hold a contested case hearing on the WMP and provide the Commission with its PFD within 8 months following BRA's initial submission of the WMP.

⁵⁹ Based upon the Executive Director's analysis, this equates with approximately 256,000 af/yr firm supply at Richmond, with the remainder interruptible. BRA Ex. 105. It should be recognized, however, that use of this water above Richmond could reduce the firm supply to something more like 150,000 af/yr.

⁶⁰ Attachment 1 is the BRA draft permit, modified to reflect areas of disagreement with the ED Draft Permit. It is in the record as an attachment to BRA's Post-Hearing Written Argument.

Respectfully submitted,

Douglas G. Caroom
State Bar No. 03832700

Susan M. Maxwell
State Bar No. 24026869

Emily W. Rogers
State Bar No. 24002863

Attorneys for Brazos River Authority

BICKERSTAFF HEATH DELGADO ACOSTA LLP
3711 S. MoPac Expressway
Building One, Suite 300
Austin, Texas 78746
Telephone: (512) 472-8021
Facsimile: (512) 320-5638

By: 
Douglas G. Caroom

CERTIFICATE OF SERVICE

I hereby certify by my signature below that on the 7th day of November, 2011, a true and correct copy of the above and foregoing Brazos River Authority's Exceptions to the Proposal for Decision was forwarded via email, hand delivery, or First Class Mail to the parties on the attached Service List.


Douglas G. Caroom

SERVICE LIST

BRAZOS RIVER AUTHORITY APPLICATION NO. 5851 TCEQ DOCKET NO. 2005-1490-WR SOAH DOCKET NO. 582-10-4184

FOR THE CHIEF CLERK:

(via e-filing)

Bridget Bohac

Office of the Chief Clerk, MC 105

Texas Commission on Environmental Quality

P.O. Box 13087

Austin, TX 78711-3087

512-239-3300

512-239-3311 (fax)

FOR TEXAS PARKS AND WILDLIFE

DEPARTMENT:

Colette Barron Bradsby

Texas Parks and Wildlife Department

4200 Smith School Rd.

Austin, TX 78744

512-389-8899

512-389-4482 (fax)

colette.barron@tpwd.state.tx.us

FOR THE ADMINISTRATIVE LAW JUDGES:

(served via hand delivery)

William G. Newchurch

Hunter Burkhalter

State Office of Administrative Hearings

300 W. 15th St., Suite 502

Austin, TX 78701

512-475-4993

512-322-2061 (fax)

FOR GULF COAST WATER AUTHORITY:

Molly Cagle

Vinson & Elkins LLP

The Terrace 7, Suite 100

2801 Via Fortuna

Austin, TX 78746-7567

512-542-8552

512-236-3280 (fax)

mcagle@velaw.com

FOR THE EXECUTIVE DIRECTOR:

Robin Smith, Staff Attorney

Ross W. Henderson, Attorney

Texas Commission on Environmental Quality

Environmental Law Division, MC-173

PO Box 13087

Austin, TX 78711-3087

512-239-0463

512-239-3434 (fax)

rsmith@tceq.state.tx.us

rhenders@tceq.state.tx.us

Ronald J. Freeman

Freeman & Corbett LLP

8500 Bluffstone Cove, Ste. B-104

Austin, TX 78759-7811

512-451-6689

512-453-0865 (fax)

rfreeman@freemanandcorbett.com

FOR THE CITY OF LUBBOCK:

Brad B. Castleberry

Lloyd Gosselink Rochelle & Townsend, P.C.

816 Congress Ave., Suite 1900

Austin, TX 78701-2442

512-322-5800

512-472-0532 (fax)

bcastleberry@lglawfirm.com

FOR PUBLIC INTEREST COUNSEL:

Eli Martinez, Attorney

Texas Commission on Environmental Quality

Public Interest Counsel, MC-103

P.O. Box 13087

Austin, TX 78711-3087

512-239-6363

512-239-6377 (fax)

elmartin@tceq.state.tx.us

FOR THE NATIONAL WILDLIFE FEDERATION:

Myron J. Hess
44 East Ave., Suite 200
Austin, TX 78701-4384
512-610-7754
512-476-9810 (fax)
hess@nwf.org

FOR THE FRIENDS OF THE BRAZOS RIVER, H.
JANE VAUGHN, LAWRENCE WILSON, AND

MARY LEE LILLY:
Richard Lowerre
Marisa Perales
Lowerre Frederick Perales Allmon & Rockwell
707 Rio Grande St., Suite 200
Austin, TX 78701-2719
512-469-6000
512-482-9346 (fax)
rl@lf-lawfirm.com
marisa@lf-lawfirm.com

FOR THE CITY OF BRYAN AND THE CITY OF
COLLEGE STATION:

Jim Mathews
Mathews & Freeland LLP
PO Box 1568
Austin, TX 78767-1568
512-404-7800
512-703-2785 (fax)
jmathews@mandf.com

FOR THE CITY OF ROUND ROCK:

Steve Sheets
Sheets & Crossfield PC
309 E. Main St.
Round Rock, TX 78664-5246
512-255-8877
512-255-8986 (fax)
slsheets@sheets-crossfield.com

FOR THE FORT BEND COUNTY LEVEE
IMPROVEMENT DISTRICTS NOS. 11 AND 15, AND
SIENNA PLANTATION MUD NO. 1:

Gindi Eckel Vincent
Pillsbury Winthrop Shaw Pittman LLP
909 Fannin Street, 21st Floor
Houston, TX 77010-1014
713-276-7678
281-582-6456 (fax)
gindi.vincent@pillsburylaw.com

FOR DOW CHEMICAL CO.:

Fred B. Werkenthin, Jr.
Booth, Ahrens & Werkenthin, PC
515 Congress Ave., Suite 1515
Austin, TX 78701-3504
512-472-3263
512-473-2609 (fax)
fbw@baw.com
bhunter@baw.com

FOR BRADLEY B. WARE AND THE COMANCHE
COUNTY GROWERS:

Gwendolyn Hill Webb
Stephen P. Webb
Webb & Webb
211 E. 7th St., Suite 712
Austin, TX 78701
512-472-9990
512-472-3183 (fax)
g.hill.webb@webbwebblaw.com
s.p.webb@webbwebblaw.com
webbwebblaw@sbcglobal.net

FOR MIKE BINGHAM:

(served via first class mail)
Mike Bingham
1251 C.R. 184
Comanche, TX 76442
(254) 842-5899

**ATTACHMENT 1
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

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 APPROPRIATION¹**

- 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, mining and recreation use within its service area subject to special conditions:

New Appropriation Amounts

Location	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:

New Appropriation Amounts without Allens Creek

Location	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

¹ **NOT AGREED.** The appropriation amounts are different from the LD's draft permit (BRA 18; ED-K) because of the different approach BRA uses for return flows. These appropriation amounts reflect use of the most current Brazos WAM revision that was used by the LD to determine unappropriated flows in the Rule 11 Draft Permit. (BRA 8; BRA 15 – 50; 1 to 51; 3, 57; 21 to 60; 10; BRA 22; BRA 23).

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 FLOWS²

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.

² **NOT AGREED.** The Return Flows provisions reflect BRA's preferred approach regarding return flows. For this reason, BRA's Draft Permit (BRA 8) and this Attachment 1 revise or delete the following paragraphs that are in the Executive Director's Draft Permit (ED-K): 1.A; 1.D; 2 (deleted); 6.A.2 – 6.A.7; 6.A.9 – 6.A.12; and 6.C.2 – 6.C.5. (BRA 8; BRA 15 – 60; 14 to 61; 2, 61; 18-21, 62; 8-10, 62; 21 to 63; 2; BRA 23). BRA also does not believe that Paragraphs 5.A.2, 5.A.3, 5.A.5, 5.A.6, and 5.A.8 of the Executive Director's Rule 11 Draft Permit (BRA 23), which relate to return flows, are necessary. (BRA 15 – 65; 20 to 66; 19).

- 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 FLOWS¹

¹ **NOT AGREED.** The Special Conditions Relative to Use of Return Flows reflect BRA's preferred approach regarding return flows. See Footnotes 1 and 2. *supra*.

- 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, 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 BFD 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, subject to Special Condition 5.B.1.
- 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 NLW APPROPRIATION⁴**

- 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;

⁴ **NOT AGREED.** The LD's Draft Permit (BRA 18 and FD-K) includes additional language for Paragraph C.2., and includes Paragraphs C.3., C.4., and C.5. Because of BRA's approach to return flows, and the use of the ED's modeling method from the Rule 11 Draft Permit, these provisions are unnecessary in the BRA preferred draft permit. See Footnotes 1 and 2, *supra*.

- 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.1.⁵

- 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,⁶ 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, to the extent such modifications do not otherwise require notice and opportunity for contested case hearing.

⁵ **NOT AGREED.** This provision is added in the BRA Draft Permit to reflect BRA's preferred method of handling Allens Creek Reservoir if BRA's Excess Flows Permit is determined not to provide sufficient authorization for diversions in excess of 202,000 af/yr. If the Excess Flows Permit is determined to provide sufficient authorization, the provision is not needed. (BRA 15 - 63.7-11).

⁶ **NOT AGREED.** This change reflects BRA's preferred approach regarding return flows. See Footnotes 1 and 2. *supra*.

- 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. 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.
- k. 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 available—firm and non-firm water are interrelated and may depend on locations and the extent to which discharged return flows are considered in the determination of available non-firm water, the Water Management Plan shall control the amounts of firm and non-firm water available at any location, subject to the limitations on permit amounts in Permit No. 5851.

l. Development of a method to determine reductions in the amount of the new appropriation authorized by this permit should return flows 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

⁷ **NOT AGREED.** The Executive Director in his revised draft permit (ED-K) proposed language regarding accounting for return flows that become unavailable. (ED-K at ¶ 6.D.4.l). BRA disagrees with the approach recommended by the Executive Director because it limits the appropriation of return flows to discharges existing at the time the permit is issued, and references TPDFS permits, which are not part of BRA's proposed draft permit. BRA proposes adoption of language substantially similar to the language it originally proposed in the BRA Draft Permit (BRA 8 at ¶ 5.D.4.m). Please note that Paragraphs 5.D.4.l and 5.D.4.m in BRA 8 have been renumbered in Attachment 1 as Paragraphs 5.D.4.k and 5.D.4.l because BRA agrees with the Executive Director regarding the deletion of Paragraph 5.D.4.j. The Executive Director's latest draft permit (ED-K) did not renumber the paragraphs when Paragraph 6.D.4.j was deleted.

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 gage⁸ exceed the instantaneous flow values

⁸ **NOT AGREED.** BRA proposes to add this language to clarify that interim instream flow conditions must be met at the next downstream gage, and not at all gages. (BRA 7-J; BRA 8; BRA 15 – 64:7-10; BRA 29 – 43:19 to 44:5; BRA 33 – 22:5-13; Tr. 2273:15 to 2275:2) (Brunetti).

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 not store or divert water appropriated by this permit if such storage or diversion would prevent meeting a seasonal schedule of individual high flow pulses.¹ Qualifying HFPs are defined as follows:**

BRAZOS RIVER NEAR GLEN ROSE - USGS #08091000				
Pulse Flows (ac-ft)	Winter	Spring	Summer	Fall
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

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

BRAZOS RIVER NEAR GLEN ROSE - USGS #08091000								
Pulse Flow Schedule (days/# of events)	Winter		Spring		Summer		Fall	
	Dura	Freq**	Dura	Freq	Dura	Freq	Dura	Freq
Hydrologic Condition								
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					

YEGUA CREEK NEAR SOMERVILLE - USGS #08110000				
Pulse Flows (ac-ft)	Winter	Spring	Summer	Fall
Dry	416.6	275.7	52.4	59.2
Average	1,904.1	1,225.8	239.2	372.9

¹ **NOT AGREED.** The language proposed by BRA appears in the Executive Director's Rule 11 Draft Permit (BRA 23) and is clearer than the language proposed by Exhibit ED-K. Please note, during the hearing on the merits, BRA withdrew its proposed language for this paragraph because it had mistakenly suggested modification of the high pulse flow requirement. (Tr. 10:22 to 12:44 (Forté); Tr. 243:21 to 244:22 (Gooch)). As proposed in the Executive Director's latest draft permit (ED-K), the provision might be read to require BRA to make releases from storage or to make managed releases from multiple reservoirs to meet the high pulse flow requirements. (BRA 15 - 64:11-19). Similar language to that above was proposed by BRA and IPWD as part of BRA's application. (BRA 7-J at ¶ 5.E.7). For this reason, BRA proposes adoption of the language proposed by the Executive Director in his Rule 11 Draft Permit. (BRA 23).

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

LITTLE RIVER NEAR CAMFRON – USGS #08106500

Hydrologic Condition	Winter	Spring	Summer	Fall
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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

Hydrologic Condition	Winter		Spring		Summer		Fall	
	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, duration, and 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:

ATTACHMENT 2



TEXAS WATER DEVELOPMENT BOARD



E. G. Rod Pittman, *Chairman*
William W. Meadows, *Member*
Dario Vidal Garcia, Jr., *Member*

J. Kevin Ward
Executive Administrator

Jack Hunt, *Vice Chairman*
Thomas Wen Labatt III, *Member*
James L. Henney, *Member*

January 5, 2007

The People of Texas
The Honorable Rick Perry, Governor of Texas
The Honorable David Dewhurst, Lieutenant Governor of Texas
The Honorable Tom Craddick, Speaker of the Texas House of Representatives
Members, Senate Natural Resources Committee, Texas Senate
Members, House Natural Resources Committee, Texas House of Representatives

With the participation of 16 planning groups and over 450 planning group members, the Texas Water Development Board adopted the 2007 State Water Plan, *Water for Texas 2007* that is transmitted herewith. The Texas Water Development Board adopted this plan pursuant to Texas Water Code, Section 16.051 on November 14, 2006.

The 2007 State Water Plan is the second plan adopted that incorporates regional water plans developed under Texas Water Code, Section 16.053 between January 2001 and January 2005. Volume I is an executive summary that includes statewide water resource information and the Texas Water Development Board's legislative policy recommendations. Volume II includes details of the state's planning process, the 2006 Regional Water Plans, and other water resource information. Volume III is a digital version of the 16 regional water plans and a database of water planning information for each water user group in Texas that is located on the Texas Water Development Board's Web site.

As the state continues to experience rapid growth and declining water supplies, implementation of this state water plan is crucial to ensure public health, safety, and welfare and economic development in the state.

Respectfully submitted,

E.G. Rod Pittman, Chairman

Our Mission

To provide leadership, planning, financial assistance, information, and education for the conservation and responsible development of water for Texas.

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Water for Texas

2007

Volume I

Texas Water Development Board

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Carolyn L. Brittin, Director, Water Resources Planning Division

Section 16.051 of the Texas Water Code directs the Texas Water Development Board to prepare, develop, formulate, and adopt a comprehensive State Water Plan that incorporates the regional water plans approved under Section 16.053. The State Water Plan shall provide for the orderly development, management, and conservation of water resources and preparation for and response to drought conditions, in order that sufficient water will be available at a reasonable cost to ensure public health, safety, and welfare; further economic development; and protect the agricultural and natural resources of the entire State.

January 2007

Document No. GP-8-1





TEXAS WATER RIGHTS AND WASTEWATER REUSE

Prepared by the Reuse Committee of the Texas Water Conservation Association

Introduction

Generally, about sixty percent (60%) of all water diverted from Texas' rivers and streams or groundwater pumped for municipal purposes enters the state's watercourses as discharges of treated effluent from wastewater treatments plants. Once considered a threat to surface water supplies, due in part to actual or perceived water quality concerns, the value of this treated effluent is now clearly recognized. This is evidenced by a much heightened interest in reuse projects to meet current and future increased municipal demands. Further, the concept of reuse is included in nearly every SB1 regional plan. Treated wastewater effluent discharged into Texas' rivers also helps meet downstream water needs, including those of the environment and agriculture. These competing interests in return flows have crystallized the need to resolve many legal issues involving reuse.

The purpose of this white paper is to: (1) provide some basic legal background and context concerning reuse of wastewater under current Texas law; (2) identify disputed issues with existing law in Texas that may warrant legislative clarification; (3) summarize the various arguments offered on both sides of these issues, without offering an opinion as to the merits of these arguments; (4) and discuss potential consequences of various policy alternatives. The issues discussed in this paper include:

- (1) Under current law, is the use of wastewater effluent after discharge to a stream a use of "state water" subject to the laws of prior appropriation or is it subject to a different regulatory scheme?
- (2) Does current law allow effluent derived from different sources of water to be treated differently for purposes of evaluating a request to reuse this effluent?
- (3) Does current law provide for different treatment of effluent derived from "future" and "existing" return flows, regardless of the source?
- (4) Who can obtain indirect reuse rights?
- (5) To what extent should protection be afforded to the environment in reuse permitting decisions?

While this paper attempts to identify discrete issues for discussion, it must be stressed that few of the issues identified above can be handled discretely. Indeed, many of these issues are so intertwined that resolution of one issue can and will impact how other issues will need to be considered and resolved. Moreover, while the disputes over indirect reuse are often characterized as a fight between municipalities or dischargers versus senior water rights holders and the environment, the reality is much more complex. Ownership, geographic distribution, sources of water supply, historical reliance on return flows in water rights permitting, and priority of water rights within each river basin vary greatly statewide. Thus, any decisions on the issues set forth in this paper are certain to result in different impacts, "winners," and "losers," depending on

the specific facts of each basin and the interests involved. The question is often not whether reuse will occur, but by whom. The ability to engage in indirect or direct reuse translates directly to an ability by some water providers to delay development of additional water supplies while at the same time forcing others to look for alternative water supplies sooner rather than later when the availability of return flows for their use is diminished.

Background - The difference between direct and indirect reuse

Direct reuse

Direct reuse is the use of wastewater effluent that involves delivery of effluent via pipelines, storage tanks and other necessary infrastructure directly from the wastewater treatment plant to others before discharging the effluent into a watercourse.¹

In Texas today, it is undisputed that a surface water right holder may directly reuse and fully consume effluent, subject only to the limitations contained in the underlying water right from which the effluent was derived.² Where contracts or other laws have clearly transferred ownership of that effluent to another, such as the wastewater treatment provider, the direct reuse rights may lie with the owner of the effluent. This approach is generally consistent with a water right holder's right to fully consume the water granted under its water right, subject only to the limitations expressed within the "four corners" of the water right. This approach is also generally consistent with how wastewater treatment providers operate today. Owners of wastewater treatment plants generally have a wastewater discharge (TPDES) permit from the state that allows them to discharge treated effluent to a watercourse. TPDES permits are not viewed as imposing a "duty" or obligation on the wastewater treatment plant owners/operator to continue to discharge effluent at a particular location or in a particular quantity. Rather, these permits restrict the circumstances under which any discharge may occur, if at all.

Obtaining authorization for direct reuse under today's regulatory scheme is fairly streamlined. Typically, only certain water quality authorizations must be obtained from TCEQ to do this kind of reuse.³ A water right holder may directly reuse the unconsumed water in a relatively unfettered manner so long as the reuse is accomplished for the purposes and in the location of use provided in the underlying water right from which the effluent is derived. Although the direct reuse of effluent reduces the amount of flow in the watercourse that is available downstream for use by other water rights holders and the environment, additional water rights authorizations are typically not required and thus, these impacts to other water rights and the environment are not addressed.

Some owners of wastewater treatment plants have relied on existing law and invested considerable funds in implementing and planning for expanded direct reuse projects. In some cases, wastewater treatment operators are required or have chosen to operate under a "no discharge" permit, which requires them to directly reuse all of the effluent. In most instances, however, direct reuse proj-

¹ See 30 TEX. ADMIN. CODE § 297.1(44).

² TEX. WATER CODE § 11.046(c).

³ See TEX. ADMIN. CODE ch. 210.

ects are relatively small in scale. Moreover, there remain practical, technical, political, and fiscal limitations on the ability to implement large direct reuse projects. Human consumption of treated wastewater effluent has yet to gain widespread social acceptance in Texas. The use of treated wastewater for landscape irrigation in areas of heavier human use (e.g. parks and school grounds) has been met with resistance in some areas even though the effluent must be treated to a high standard. Thus, in some cases, high quality potable water is still used for some purposes even though treated effluent could be used under today's rules. This limited implementation of direct reuse projects means that the availability of return flows to meet downstream needs has not yet been significantly impacted. However, it is believed that, as treatment technology advances and treatment costs decrease, and as water becomes more scarce and the cost of developing and delivering new supplies increases, direct reuse of treated effluent (even for human consumption) will become more attractive and feasible over time.

Indirect Reuse

Treated wastewater that is not directly reused and is instead discharged to a watercourse is "return flow."⁴ The subsequent downstream diversion and use of wastewater return flows is commonly referred to as "indirect reuse." Indirect reuse substitutes transportation via a state watercourse for the pipeline, and accompanying capital cost, associated with traditional direct reuse projects. The ability to use the stream as the "pipeline" may also provide the added benefit of reducing costs of treating the diverted water, as the mixing and transportation process in the watercourse actually provides additional natural treatment. Like direct reuse, indirect reuse ultimately reduces the amount of flow in the watercourse that is available for use by other water rights holders and the environment. This effect, of course, is most evident downstream of the point where the indirect reuse occurs. Upstream of the indirect reuse point, the return flows continue to provide some instream flow benefit. In contrast to the clear authority to engage in direct reuse without water rights permitting implications, the ability to engage in indirect reuse is less clear. There are currently pending before TCEQ a large number of water rights applications seeking indirect reuse authorization, nearly all of which have been protested. In some cases, these permits applications derive from projects contained in regional water plans. Many of the issues posed in those protests are more fully discussed in the following Issues section of this paper.

ISSUES DISCUSSION

- (1) **Under current law, is the use of wastewater effluent after discharge to a stream "state water" subject to the laws of prior appropriation or is it subject to a different regulatory scheme?**

With regard to surface waters, Texas generally follows the prior appropriation doctrine to authorize use of this state water. Under this principal, available water is permitted for use on a "first in time, first in right" basis. Except in very limited circumstances, a permit is required to use state water. One aim of this permitting process is to ensure that available water supplies are not over-

⁴ 30 TEX. ADMIN. CODE § 297.1(43).

committed. Indeed, an application for a new appropriation may only be granted upon a finding that: (a) the application meets the statutory requirements, (b) water is available, and (c) the proposed appropriation is for a beneficial purpose, does not impair existing water rights, is not detrimental to the public welfare, is consistent with the state and regional water plans, addresses water conservation concerns, and includes proper consideration of environmental needs.⁵

One of the most basic disputes in the fight over indirect reuse is whether wastewater return flows are subject to this or some other regulatory scheme. As discussed below, the source of this dispute is rooted in language contained in two statutes, both of which were modified in 1997 by Senate Bill 1: Water Code § 11.046 and Water Code § 11.042.

Bed and Banks Authorization of Reuse

Those who advocate that wastewater return flows are not subject to the permitting requirements that apply to new appropriations focus on Texas Water Code § 11.042⁶ - the "Bed and Banks" statute. These applicants argue that section 11.042 changed preexisting law to provide an independent basis for granting indirect reuse authorizations outside the established prior appropriations permitting scheme.

Section 11.042 contemplates the issuance of permits for the delivery of certain waters down the bed and banks of a watercourse under three separate circumstances. Subsection (a) provides the statutory guidelines for delivery of stored waters from reservoirs using the bed and banks of a watercourse and is not at issue here. Subsection (b) provides a statutory basis for delivery of effluent derived from groundwater, and is discussed more fully under Issue (2) in this paper. Many argue that subsection (c) provides the basis for indirect reuse authorizations of surface-water derived effluent. It states:

Except as otherwise provided in Subsection (a) of this section, a person who wishes to convey and subsequently divert water in a watercourse or stream must obtain the prior approval of the commission through a bed and banks authorization. The authorization shall allow to be diverted only the amount of water put into a watercourse or stream, less carriage losses and subject to any special conditions that may address the impact of the discharge, conveyance, and diversion on existing permits, certified filings, or certificates of adjudication, instream uses, and freshwater inflows to bays and estuaries. Water discharged into a watercourse or stream under this chapter shall not cause a degradation of water quality to the extent that the stream segment's classification would be lowered. . . .

Many applicants for indirect reuse authorization argue that "water" in section 11.042(c) includes all types of water (including surface-water derived effluent) except those specifically addressed in other sections of section 11.042 and that section 11.042(c) removes indirect reuse from the process for permitting new appropriations. They further argue that no priority date should attach to indirect reuse, or that, if a priority date must be assigned, it should be the same priority date that is associated with the underlying water right from which

⁵ See TEX. WATER CODE ANN. § 11.134(b).

⁶ See also 30 TEX. ADMIN. CODE § 297.16.

the return flows derive. Applicants also argue that the protections embedded in section 11.042(c) are sufficient to protect the environment and all existing water rights holders. Others argue that section 11.042(c) actually represents a limitation on one's private property right to reuse effluent that did not previously exist.

Further, because a water right holder is entitled to consumptively use or directly reuse 100% of the water granted under an appropriative right (unless otherwise expressly limited in the permit⁷), and because all requests for new appropriations in recent years have been evaluated assuming that the waters under these existing rights will be fully consumed (i.e. there will be no return flows), many argue that a bed and banks permit is the proper mechanism for granting legal rights to indirect reuse of effluent.

Indirect Reuse Permits As New Appropriations

Those arguing that any legal claim to wastewater return flows must be sought through the ordinary water rights permitting process largely rely on preexisting law and Water Code § 11.046. This statute, which also provides the clear authority for direct reuse, provides in pertinent part that:

Once water has been diverted under a [water right] and then returned to a watercourse or stream ... it is considered surplus water⁸ and therefore subject to reservation for instream uses or beneficial inflows or to appropriation by others unless expressly provided otherwise in the permit, certified filing, or certificate of adjudication.

Supporters of this position argue that this language codifies the common law, which held that an appropriator had no claim to water that had escaped his land, particularly once it drained into a natural watercourse.⁹ They argue that wastewater return flows are "considered surplus water" under section 11.046(c) and thus should be treated as available for use by other downstream water rights holders or subject to permitting only as a new appropriation.

Since section 11.042(c) uses the term "water" and not "effluent" or "return flows," some offer that this section applies to other sources of water proposed to be transferred through state watercourses, such as groundwater or imported surface water (often referred to as "developed water"). This interpretation, they contend, gives meaning to the term "water" used in section 11.042(c) without the apparent conflict between this section and the provisions of section 11.046(c), and without requiring a dual permitting requirement to secure a new appropriation under section 11.046(c) and a bed and banks authorization under section 11.042(c).

⁷ See TEX. WATER CODE ANN. § 11.046.

⁸ See TEX. WATER CODE § 11.002(10); 30 TEX. ADMIN. CODE § 297.1(53).

⁹ In *City of San Marcos v. Texas Comm'n on Env't'l Quality*, 128 S.W.3d 264 (Tex. App. Austin 2004, pet. denied), the court ruled that, prior to Senate Bill 1 amendments to the Water Code, no common law right existing by which a city might claim ownership of its wastewater effluent following its discharge into a state watercourse. Instead, a new appropriation was required. See also WELLS A. HUTCHINS, *THE TEXAS LAW OF WATER RIGHTS* 155 (1961). See also Ronald A. Kaiser, *Texas Water Marketing in the Next Millennium: A Conceptual and Legal Analysis*, 27 TEX. TECH L. REV. 181 (1996); *South Texas Water Co. v. Bieri*, 247 S.W.2d 268, 272-73 (Tex. Civ. App. - Galveston 1952, writ ref'd n.r.e.).

Consequences of Different Approaches to Permitting Indirect Reuse

The implications of how indirect reuse of surface water-derived effluent is permitted, if at all, could have enormous implications with regard to who might ultimately obtain such rights, the value of those rights for providing a quantifiable, reliable water supply that can be appropriately protected from use by others, and how potential impacts on other water users and the environment might be addressed. As mentioned earlier, this choice is not always between cities and river authorities or upstream and downstream interests. If anything, the choice may best be characterized as one between: (1) entities seeking to increase their legally available water supply beyond that which they currently hold by contract or water right in a manner that, in many cases, may be more cost-effective or politically acceptable (or both) than a new water supply contract, reservoir project, or costly pipeline, and (2) existing water rights holders or environmental interests who have relied upon or wish to preserve future availability of return flows to meet their own needs, environmental flow needs, or the needs of downstream senior rights who would otherwise make calls upstream to junior rights for the passage of inflows.

Some of the more specific consequences of a "bed and banks" approach to indirect reuse of surface water-based effluent under section 11.042 include:

- (1) Protections afforded existing water rights and environmental needs may be less than that statutorily required for a new appropriation. For example, assignment of no priority date or a priority date of the underlying water right renders off-limits those return flows from claims by existing water rights that may have relied on the availability of those return flows to improve reliability of their rights.
- (2) Use of section 11.042 as an indirect reuse authorization mechanism would require development of a detailed accounting system to track discharges and diversions of return flows that fall outside the priority system of allocating waters in a watercourse;
- (3) Removing return flows from the available "pool" of water available to satisfy determined environmental needs, if any, could result in an inability to meet any such needs, cause the burden to be borne by other water rights holders, or increase the cost of meeting any such needs.
- (4) Indirect reuse could significantly extend the water supply available to the entity receiving the authorization.
- (5) The State retains some right to evaluate and address the impact of indirect reuse on the environment and other water rights. (The extent of this right is the subject of other issues discussed in this paper.)

By comparison, the types of specific consequences that some suggest result if indirect reuse is treated as a new appropriation under section 11.046 include:

- (1) In many basins, the water in the watercourses, even after including return flows, can be fully allocated to existing water rights (at least up to the reliability standard required to permit such use). In these and other cases, determined environmental water needs of the stream or bay systems may exceed the amount of water remaining for appropriation. New permits for indirect reuse could probably not be issued in these basins.

- (2) Even if water is found to be available, the water right will receive a junior priority date. Under the "first in time, first in right" approach, this means that these water rights are more likely to be reduced or cut off in times of severe drought.
- (3) Increased development of direct reuse projects is likely to occur if other water supply strategies cannot be identified.
- (2) Does current law allow effluent derived from different sources of water to be treated differently for purposes of evaluating a request to reuse this effluent?

Groundwater-based effluent

Section 11.042(b), also enacted in 1997, provides a separate mechanism for addressing the indirect reuse of effluent derived from groundwater. Specifically, section 11.042(b) reads:

A person who wishes to discharge and then subsequently divert and reuse the person's existing return flows derived from privately owned groundwater must obtain prior authorization from the commission for the diversion and the reuse of these return flows. The authorization may allow for the diversion and reuse by the discharger of existing return flows, less carriage losses, and shall be subject to special conditions if necessary to protect an existing water right that was granted based on the use or availability of these return flows. Special conditions may also be provided to help maintain instream uses and freshwater inflows to bays and estuaries. A person wishing to divert and reuse future increases of return flows derived from privately owned groundwater must obtain authorization to reuse increases in return flows before the increase.^[10]

Effluent derived from Imported or Stored Waters

While section 11.042(b) singles out groundwater-derived effluent for specific regulatory treatment, section 11.042(c) does not identify the source(s) of the "water" to which it refers, thereby leaving open for argument the issue of whether or how effluent derived from other water supplies is to be treated, if at all, under section 11.042(c).

Because imported waters from another basin, and the effluent derived from them, are sources of supply that would not have ordinarily been available to meet downstream environmental needs or those of downstream water rights holders in the receiving basin, some argue different and perhaps less onerous treatment is appropriate, especially in light of already existing barriers to interbasin transfers.

A few have also argued that effluent derived from waters that are first stored in an in-basin reservoir are waters that would not have been available to the environment or downstream water rights but for the initial efforts of the entity

¹⁰ This language essentially tracks the decision by Texas Natural Resource Conservation Commission (TNRCC) (predecessor to the TCEQ) in the *City of San Marcos* case, in which the City of San Marcos sought a bed and banks authorization to convey groundwater-derived effluent for subsequent diversion and use downstream under the statutes that existed prior to the adoption of SB 1 and section 11.042(c).

that constructed the reservoir to capture and store the source water. Others suggest that there is no difference between reuse of effluent derived from in-basin surface water previously stored in a reservoir and effluent derived from in-basin surface water diverted under a run-of-river permit.

As discussed above under issue (1), many generally recognize there may be a valid basis for distinguishing between supplies that are derived in-basin versus out-of-basin supplies or groundwater. This may be particularly appropriate for new or increased levels of return flows from these water supplies, where no existing water right holder or the environment has come to rely upon those return flows. Indeed, because imported waters are required to go through a rigorous interbasin transfer permitting process that in part addresses impacts to environmental flows and senior rights in the basin of origin, it is arguably already burdened by significant restrictions. Many argue that imposing additional requirements to meet environmental needs in the receiving basin on top of these other requirements represent a punitive requirement on interbasin transfers that have been identified as necessary to meet growing water supply needs.

(3) Does current law provide for different treatment of effluent derived from "future" and "existing" or "historical" return flows, regardless of the source?

While the terms "existing return flows" and "future increases in return flows" are terms that are only contained within the statute that deals with groundwater-based return flows (section 11.042(b)), both the nature of the distinction to be made with regard to groundwater-based return flows and whether any such a distinction can or should be made by regulators when other sources of supply are involved continues to foster considerable debate. Confusion seems to arise around the use of the terms "existing" and "future" return flows, which contributes to the debate. The term "historical" is used by many as synonymous with "existing" return flows. Some use the term "historical" or "existing" return flows to mean only those return flows that have been actually discharged, whereas others use the term to include return flows that derive from existing water rights whether or not they have ever actually been discharged. Similarly, to some, the term "future" return flows means return flows that have never actually been discharged regardless of whether the return flows derive from an existing permitted in-basin or imported surface water supply or groundwater. Lastly, others use this term to refer only to return flows that derive from water supply sources that have yet to be permitted or, in the case of groundwater, developed.

Regardless of the terminology, the issue comes down to whether increases in actual discharges of return flows above current or historical levels is "new" water to the system that could or should be treated as outside the prior appropriation system. The argument in support of this approach is that no water right holder or the environment has ever relied on the actual presence of return flows to satisfy their day-to-day needs. Others dispute this contention, arguing that such assumptions have underlain significant investments in the purchase of water rights, execution of contracts, and construction of infrastructure. Moreover, some argue that past water rights permitting decisions have included express or implicit assumptions about future increases of return flows derived from existing water rights and that this type of reliance on predicted return flow levels should be respected. It is important to recognize that definitive proof of these kinds of assumptions is often elusive. While those assumptions, if any, have only occasionally been stated expressly in agency orders, permits, or other contemporaneous documents, in many (if not most) other instances, any such assump-

tions may have been included in the evaluation of the water right or contract requirements in accordance with the common practices of the experts at that time and may not be fully documented, if at all. In some cases, certain existing water rights holders have undoubtedly enjoyed an increase in the reliability of their water rights due to the presence of return flows, but clear reliance on the presence of these return flows in the permitting process is often difficult to document. If past permitting reliance is to be honored, defining the appropriate level of proof and the assignment of the burden of proof on this issue is something the Legislature may want to address. These concerns seem to be present not only where in-basin return flows are at issue, but also in situations where the discharge of effluent derived from either groundwater or imported surface water has already occurred for some time and is projected to increase over time.

(4) Who can obtain indirect reuse rights?

Disputes also arise over whether existing law allows TCEQ to give preference to particular types of applicants for indirect reuse authorizations. Some have suggested that holding the underlying water right should provide some preference under current law, whereas others have argued that ownership of the wastewater treatment plant confers a preference under current law. Others have argued that current law does not necessarily establish any preference but that good policy would support giving preference to the water right holder or the discharger, but not third parties with no identifiable ownership interest in the wastewater or underlying water right. As set forth below, the approach *may* depend on the statute under which indirect reuse applications are considered. As such, clarification of the Legislature's intent on this issue may be necessary.

If surface-water derived return flows are treated as "surplus water" under section 11.046(c), available for appropriation by "others," then it appears fairly clear that *anyone* may file such an application, regardless whether the applicant has any ownership interest in the facilities that are discharging the effluent or whether the applicant has an ownership interest in the underlying water right or contract for the water supply from which the effluent was derived. In that instance, TCEQ would presumably evaluate competing applications for the same water based on the type of use and merit of each application.

Subsection 11.042(c), which some argue provides the sole basis for allowing the indirect reuse of surface-water derived return flows, refers to granting a "person" the right to "convey and subsequently divert water," without regard to whether the "person" also needs to be the discharger of the water, the owner of the underlying surface water right from which the return flows are derived, or a person with a contract to either purchase the return flows from the discharger or the underlying surface water from which the effluent is derived. Indeed, some have suggested that *any* person or entity can seek a right under section 11.042(c) even if no contractual or ownership interest with respect to the return flows or underlying water supply exists.

Section 11.042(b), which addresses indirect reuse of groundwater-based effluent, allows that "a person who wishes to discharge and then subsequently reuse the person's existing return flows..." to obtain a permit. This suggests that only the discharger of the return flows may obtain such authorization. By contrast, with regard to future increases in return flows derived from groundwater-based effluent, the same subsection (11.042(b)) provides only that "a person who wishes to divert and reuse" these return flows needs a permit, perhaps suggesting that the same person seeking the permit need not also be the

discharger, since the same phrase "discharge and...reuse" is not used. As with section 11.042(c), some point to this different terminology for future increases in return flows to contend that any person can obtain indirect reuse rights to future groundwater-derived return flows even if no contractual or ownership interest with respect to the return flows or underlying groundwater exists.

(5) To what extent should protections be afforded to the environment in reuse permitting decisions?

The benefits that return flows may offer in supplying water to help meet environmental needs in many river basins is undisputed. The ongoing debate of how best to provide water to meet environmental needs of our rivers and bay systems has been further highlighted as the potential and need for the full use, and reuse, of water rights increases over time. Regardless of the permitting approach used - whether through a new appropriation or a bed and banks authorization, or both - the effect of reuse on the environment is a significant issue. Indeed, these approaches generally allow TCEQ to consider environmental flow needs in their assessment of the proposed reuse and include appropriately protective conditions. The question then is the level of protection that is appropriate where reuse is concerned. One factor to consider in incorporating appropriate limitations in any reuse authorization may be the extent to which return flows are or may be relied upon to meet identified environmental flow needs when considered along with the responsibility of other water rights holders in the basin to provide for environmental flows. Actual discharges of effluent and past assumptions with respect to expected increases in return flows over time, if any, may be relevant. Additionally, the extent to which artificially created environments made possible by historical return flows should be protected, should be considered. Prior to the growth of cities and their resulting wastewater discharges, many streams in Texas, including some that were not considered perennial streams, had historical low flows well below current low flows. Fully protecting these artificial baseflows by limiting the amount of return flows that can be reused may not be prudent in light of the state's needs for additional water supplies. On the other hand, if an environment has been created, even through artificial means, the counterargument that many perennial streams in the state have been dammed up and diverted in a manner that did not take into account water for environmental flows suggests that some trade-off is appropriate. Future return flows that have not been relied upon to meet environmental needs may warrant different treatment.