

**SOAH DOCKET NO. 582-22-2634
TCEQ DOCKET NO. 2022-0125-WR**

APPLICATION BY	§	BEFORE THE STATE OFFICE
CITY OF WICHITA FALLS	§	
FOR WATER USE	§	OF
PERMIT NO. 13404	§	
	§	ADMINISTRATIVE HEARINGS

PROTESTANTS’ EXCEPTIONS TO THE PROPOSAL FOR DECISION

TO THE HONORABLE CHAIRMAN NIERMANN AND COMMISSIONERS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY:

Protestants William Justin O’Malley, Umhaill Valley LLC, Rockfleet Castle LLC, and Kildavnet Castle LLC (“O’Malley”), Stan, Larry, and Lonnie Horwood (“Horwoods”), Texoma Stewardship Coalition and Aligned Protestants (“TSC”), and Texas Conservation Alliance (“TCA”) (hereinafter, “Protestants”) file these Exceptions to the Proposal for Decision (“PFD”) in the above-referenced matter.

I. INTRODUCTION

Protestants appreciate the ALJ’s thoughtful consideration of the issues presented by the parties in this matter and agree with and support his recommendation of denial for all of the reasons articulated in the PFD and in the Proposed Order. Protestants offer the following limited exceptions as well as minor proposed edits to the PFD and the Proposed Order, for the reasons described below.

II. PROTESTANTS' EXCEPTIONS

A. Public Welfare

Protestants respectfully take exception to Conclusion of Law 21 and the conclusion reached in the PFD regarding public welfare. Chapter 11 requires that before granting any application, the Commission make an affirmative finding that the proposed appropriation “is not detrimental to the public welfare.” Tex. Water Code § 11.134(b)(3)(C). There is no dispute that the City has the burden of proof to establish by the preponderance of the evidence that its proposed appropriation is not detrimental to public welfare. 30 Tex. Admin. Code § 80.17(a). However, the PFD effectively shifts this burden. That is, the PFD cites only to the City’s testimonial evidence as to whether the project *would not* be detrimental to the public welfare, but it then searches for evidence from Protestants that it *would be* detrimental. And in so searching, the PFD improperly narrows the scope of the pertinent “public welfare factors.”

The PFD correctly found that the testimony of Simone Kiel as to the overall economic benefits of the project on the City of Wichita Falls’ population was unreliable.¹ The only other evidence offered by the City to meet its burden, however, is one paragraph in its Application, upon which the PFD relies, in which the City claims that “[c]onstruction of and diversion from Lake Ringgold will allow the City to provide water for beneficial use.”² The Application goes on to claim “the proposed reservoir and [sic] will benefit the public welfare as it provides the City with greater water security and reliability, and allows

¹ PFD at 25.

² WF. Ex. 1 at Bates 7725; *see* PFD at 25.

the City more flexibility in utilizing existing water supplies.”³ It is this portion of the Application that the PFD appears to rely on in support of a finding that the City met its burden on the public welfare issue. But narrowing the “public welfare factors” to such a degree, as the PFD has done, is erroneous for two primary reasons.

First, the Application’s public welfare factors are offered only as general benefits of building a reservoir, and in framing (and limiting) them in this manner, one will always conclude there is a net positive outcome. For example, the parties dispute that the City has demonstrated *how* and that, in fact, *it would* put the 65,000 acre-feet to beneficial use, or that the City has demonstrated a need for greater water security and flexibility of up to 65,000 acre-feet. Had these factors been part of the inquiry, the outcome may not have been a net positive benefit to the public welfare, even if one were to assume that the building of a reservoir, alone, could be considered a positive outcome.

But there is also more required to demonstrate that the project will result in water security and reliability *that is not detrimental to the public welfare*. As Mr. Carlos Rubinstein (former TCEQ commissioner and TWDB commissioner) testified in his deposition, there are a number of public welfare factors to apply to this inquiry: whether the water supply project is necessary and there is a demonstrated need for it; whether projected needs may be met with nearer-term solutions; and whether the proposed project offers an alternative form of water supply—that is, whether it allows for diversification or redundancy of supplies.⁴ These are not factors considered in the Application’s public

³ WF. Ex. 1 at Bates 7725.

⁴ OM Ex. 5 at 100, 126.

welfare analysis, by the City's experts, or in the PFD, and absent consideration of these factors, the City has not met its burden to show the water supply project is not detrimental to the public welfare.

Second, the PFD's analysis of the public welfare issue appears to disregard the impacts of constructing the proposed reservoir at the proposed location. The Applicant's request to construct the reservoir and divert 65,000 acre-feet go hand-in-hand. In other words, the City claims it will achieve this water security and flexibility (factors it claims are benefits to the public welfare) *because of the reservoir*. And yet, the PFD has excluded from consideration factors that are plainly within the Commission's jurisdiction and that are relevant to the reservoir's construction, including those factors that the City's own expert identified in prefiled direct testimony—namely, the environmental impacts and economic cost of the reservoir project.⁵

These factors are consistent with prior findings of the Commission related to public welfare in the BRA SysOp case.⁶ Among the findings made by the Commission in that case were that the system operations proposed by BRA did not require construction of new expensive reservoir projects, did not require land acquisitions, the low cost of water coupled with its near-term availability will help stabilize water rates, and the environmental impacts are far less than the impacts that might be associated with the construction of a new reservoir.⁷

⁵ WF Ex. 3 at 82:7-10 (Bates WF00011057) (Kiel direct testimony) ("In my opinion, the public welfare is the overall well-being of the people of Texas. This would encompass economic well-being, public health, a sound ecological environment, and other factors.")

⁶ See Attachment A.

⁷ *Id.* at Findings of Fact 142, 143, 144 & 145.

Consideration of the environmental impacts is plainly within the Commission's jurisdiction. *See, e.g.*, Tex. Water Code § 11.152 (assessment of effects of permits on fish and wildlife habitats), and a reservoir project with a diversionary right, by definition, will have more environmental impacts than the same diversionary right alone. It was an improper application of the law to exclude the impacts of the proposed reservoir from the public welfare analysis.

Likewise, the cost of a reservoir project with a diversionary right will be, by its very nature, larger than a diversionary right alone. The Commission, just as it found in the BRA SysOp case, has jurisdiction to consider whether the applicant has compared alternative water supply strategies and compared unit costs of water, and how that cost will impact water rates that are passed onto members of the public.⁸ Thus, while condemnation of private property may not be specifically enumerated in Chapter 11, it also cannot be ignored when analyzing detriments to the public welfare.⁹ Not only is it a necessary factor of the alternatives analysis, the City cannot condemn private property without the requested water right from the Commission. Therefore, although the condemnation exercise itself is not one for the Commission to perform, the fact that land must be condemned (and is a part of the project's costs) is within the Commission's purview in considering public welfare.

Finally, the PFD improperly limits consideration of evaporative losses from the proposed Ringgold reservoir, though Protestants point out that a reservoir that is oversized or designed for a diversion that exceeds need (i.e., 65,000 acre-feet), will experience

⁸ *Id.* at FOF 142 & 144.

⁹ OM Ex. 5 at 192-194 (Deposition transcript of Carlos Rubinstein).

evaporation *beyond what is necessary* to meet the stated need (less than 9,110 acre-feet).¹⁰ In other words, the design of the reservoir would knowingly lead to unnecessary evaporative losses. This amounts to an intentional waste of State water, which cannot be beneficial to public welfare. Tex. Water Code § 11.134(b)(3)(C) (requiring evidence that reasonable diligence will be used to avoid waste). The PFD is based on a misapplication of the evidence and argument offered by the City.¹¹ Though evaporation is accounted for in the WAM, the WAM does not determine the size of a reservoir—only the applicant or its engineers make that decision. Said another way, the Ringgold WAM indicates that, even given evaporative losses, the City would still, in some years, be able to divert up to 65,000 acre-feet in a year. This leads to why the result of the Ringgold reservoir being oversized to deliver a diversionary right of up to 65,000 acre-feet is directly relevant to the public welfare analysis: because, these evaporative losses will not be available to the next hopeful water user. When the next hopeful water user runs the WAM, it will indicate the water available in the basin—minus prior diversions and taking into account those evaporative losses from Ringgold. Therefore, the evaporative losses directly limit the rights of others to one day use water in the basin.

Though the ED admits that staff “did not conduct a separate review of the application based on public welfare pursuant to Tex. Water Code § 11.134(b)(3)(C)

¹⁰ PFD at 21. Though this was discussed in context of beneficial use and waste, Protestants raised it in the context that evaporation from that reservoir, beyond which the need for the reservoir volume has been established, is inherently a waste of State water, so it is certainly relevant to the Commission’s public welfare inquiry. *See* Landowner Protestants’ Closing Args. at 17 (citing Hearing Examiner’s Proposal for Decision, *In the Matter of the Application by the City of Stephenville, et al. for Permit Nos. 4237 and 4237A* (Mar. 13, 1987), at 38).

¹¹ *See* PFD at 21.

because there is no definition of what constitutes detriment to the public welfare,”¹² this does not excuse the City from meeting its burden of proof to demonstrate that the proposed appropriation is not detrimental to the public welfare; nor does it excuse the matter from the Commission’s consideration. In the case at hand, the fact is that the City has not met its burden of proof on a number of issues that are required in order for the Commission to grant the Application. Even if one were to limit the public welfare analysis to only those issues where the City has not satisfied its burden of proof (as suggested by the ED), it is not logical or sound public policy to conclude that an application that fails to meet the minimum requirements of state law is somehow still not detrimental to the public welfare.

Given these deficiencies, the denial of this Application does not rest on whether the proposed appropriation is detrimental to the public welfare. However, Chapter 11 directs the Commission to also consider whether *the proposed* appropriation is detrimental to the public welfare. In this case, what the City has proposed¹³ is a reservoir that will inundate 15,500 acres (and indirectly impact many more), with a diversionary right of 65,000 acre-feet. For obvious reasons, Protestants—which includes landowners, as well as Texas Conservation Alliance and Clay County—have a keen interest in preventing a project that it is not detrimental to the public welfare. The City has not met its burden of proof to

¹² ED’s Closing Args. at 10.

¹³ To the degree that ALJ is making a distinction between “appropriation” and the whole water right sought by the Application in terms of the public welfare analysis, neither Chapter 11 nor the evidence supports that distinction. See e.g., WF Ex. 1 at Bates 7725 (the Application’s section on public welfare where it describes benefits from the reservoir); Tex. Water Code § 11.002(5), (6) (defining “water right” to include the right to impound, divert, or use state water and “appropriator” to include a person who makes beneficial use of any water pursuant to a permit lawfully issued by the commission); WF Ex. 3 at 82:5; 13-17 (Kiel testifying that Tex. Water Code § 11.134 lists “conditions for granting water rights” and that “the Application will benefit the public welfare,” “[s]pecifically, the Lake Ringgold project will enhance public welfare”); ED’s Closing Args. at 5-10 applying Tex. Water Code § 11.134(b)(3) requirements to the “application” including the request to store state water).

demonstrate by a preponderance of the evidence, that this appropriation will not be detrimental to the public welfare.

It's important to Protestants, and the public at large, that the Commission weigh in on this issue. The ED failed entirely to define “public welfare” or perform any separate public welfare analysis. The City provided one set of factors in its Application and another in its testimony. And the PFD’s analysis of the public welfare issue is limited to only a narrow set of factors associated with the general benefits that an additional water supply project are assumed to provide to a prospective water supplier. As explained above, the Commission has included a number of other factors in other water rights cases when evaluating whether the proposed appropriation will be detrimental to the public welfare—factors that are not addressed in the PFD, but that were raised by the Protestants and the evidence they presented. The Commission should apply those factors here—to ensure that the public and permit applicants are well-informed regarding how the Commission determines whether a water right project is detrimental to the public welfare. This will allow for predictability and consistency in future water rights matters.

The need for the Commission to weigh in on this issue is made evident by the facts of this case. The City’s shifting focus regarding what factors inform the public welfare analysis has presented the Protestants and other parties with a moving target. By contrast, Protestants presented evidence regarding this issue based on their reading of earlier Commission decisions, such as the BRA decision, and on the testimony of Mr. Rubinstein. Unfortunately, the PFD has erroneously narrowed the factors and not considered the evidence offered by Protestants on this issue, in light of which, the City’s evidence does

not carry the day. The legal consequence for such, is that the City has failed to meet its burden because it has not established by a preponderance of the relevant evidence that the project will not be detrimental to public welfare.

B. Beneficial Use

Protestants also respectfully take exception to Conclusion of Law 19, which concludes that the proposed appropriation is intended for beneficial uses. Although there is no dispute that the proposed uses listed in the City's Application are uses that have been acknowledged as "beneficial" under Chapter 11, more is required to support a finding or conclusion that the City satisfied its burden of demonstrating that the requested appropriation is intended to be put to beneficial use.

Although Water Code Section 11.023 lists various uses for which water *may* be appropriated, *id.* § 11.023, this statute must be read in conjunction with the definition of "beneficial use" in Chapter 11 of the Water Code. "Beneficial Use" is defined as the amount of water that is economically necessary for a purpose authorized by Chapter 11, when reasonable intelligence and reasonable diligence are used in applying the water to that purpose, and it shall include conserved water. *Id.* § 11.002(4). In other words, to demonstrate "beneficial use," an applicant must not only identify an authorized purpose (among those listed in Section 11.023), but *also* demonstrate that the *amount of water* to be appropriated is economically necessary for those identified purposes, when reasonable intelligence and diligence are used in applying the water to that purpose.¹⁴

¹⁴ See *also* Tex. Water Code § 11.023(e) (instructing how to determine the appropriate *amount of water* to authorize for appropriation: "The amount of water appropriated for each purpose mentioned in this section shall be specifically appropriated for that purpose, subject to the preferences prescribed in Section 11.024 of this code."); *id.*

In short, identifying certain proposed uses from the list of statutorily authorized uses is necessary, but not sufficient to comply with the statutory requirement that the appropriation be intended for a beneficial use. An applicant must demonstrate that the requested *amount* of water is necessary and reasonable for each authorized purpose.¹⁵

Here, as the PFD aptly explains, the City failed to satisfy its burden of proving that all of the water it seeks to appropriate will be put to the beneficial uses identified in the Application. *See* Tex. Water Code § 11.134(b)(3)(A). That is, the City failed to demonstrate that the amount of water it has requested for appropriation is necessary for each of its identified purposes, when reasonable intelligence and diligence are used; the PFD makes this clear, for at least three different reasons.

First, there is no dispute that the City did not specify how much water would be used—or economically necessary—for each of its identified purposes. In fact, as the ED’s witness Dr. Alexander explained, the City could theoretically use all of the 65,000 acre-feet for mining purposes in a single year. Or it could use all of the requested water for industrial purposes in a single year.¹⁶ There is nothing in the Application or Draft Permit that requires any of the appropriated water to be used for municipal purposes. The type of detailed information required by statute and rule regarding the amount of water that will

§ 11.025 (emphasizing the requirement that a “right to use state water under a permit or a certified filing is limited not only to the amount specifically appropriated but also to the amount which is being or can be beneficially used for the purposes specified in the appropriation, and all water not so used is considered not appropriated”).

¹⁵ *See* PFD at 16 (noting that the requirement to specify the amount of water necessary for each proposed use “is necessary to evaluate whether the amount requested for each use is “economically necessary for that purpose, which is part of the definition of beneficial use”).

¹⁶ Tr. Vol. 7 at 144.

be put to each identified beneficial use is simply missing from the City’s application,¹⁷ and consequently, the Draft Permit would authorize an appropriation amount without ensuring that the entire authorized amount will be put to beneficial use.

Second, as the PFD explains, the City has failed to demonstrate a need for the amount of water it has requested. For instance, the ALJ found, based on the evidence presented, that the 20% reserve supply that was used by the City to support its appropriation request “is not supported by analysis, not tied to a volume of water that represents the demand of water users, or operational issues,” and “inflated the City’s projected need.”¹⁸ The PFD also explains that the City’s “population projections do not support the projected need of 9,110 acre-feet per year”¹⁹—an amount that is, itself, far less than the requested 65,000 acre-feet in the City’s application and the ED’s draft permit.²⁰ And the operational issues cited by the City in support of its appropriation request also fail to demonstrate a need for the requested 65,000 acre-feet.²¹ Plainly stated, “the requested amount of the proposed appropriation does not address a water supply need, and therefore is neither necessary nor reasonable.”²²

Finally, the Ringgold reservoir (which is a necessary component of the requested appropriation) is oversized and would result in a firm yield that far exceeds the City’s

¹⁷ See PFD at 21 (“the applicant failed to specify the amount [of water to be appropriated for each identified use]”); *see also* proposed Finding of Fact 42, Conclusions of Law 12, 17 and 18.

¹⁸ PFD at 84.

¹⁹ PFD at 85.

²⁰ PFD at 90 (“even if the City’s projected need of 9,110 acre-feet per year were reliable, there is no evidence that the requested amount of appropriation—65,000 acre-feet per year—is necessary and reasonable”).

²¹ PFD at 90.

²² PFD at 90.

projected demands.²³ The size and plans for Ringgold were not narrowly tailored to meet the City’s projected need, the PFD explains, but rather “a project conceived during the Eisenhower administration resurrected to address a potential shortage during a drought of record.”²⁴

Taken together, not only do these findings support denial of the requested permit for the reasons identified in the Proposed Order, but they also demonstrate that the City failed to satisfy the requirement that the proposed appropriation be put to beneficial use, as that term is defined in the Water Code. Accordingly, Protestants respectfully except to Conclusion of Law 19, because it is inconsistent with the evidence presented, the analysis in the PFD, related findings and conclusions, and the definition of “beneficial use” in the Water Code.

III. MINOR REVISIONS

Protestants do not take exception to the conclusions of law identified below. Rather, Protestants offer proposed revisions to ensure that the conclusions accurately reflect the analysis in the PFD and the relevant statutory requirements.

First, with regard to the conclusions of law addressing the City’s failure to meet the requirements of Texas Water Code Section 11.124(a)(4) and TCEQ Rule 195.5,²⁵

²³ PFD at 89; *see also* OM Ex. 4 (email exchange among City personnel, acknowledging that “[t]he yield of Ringgold is estimated, based on the Water Availability Model (WAM), to yield about 27,000 acft per year. . . . This is obviously more water than is needed by the City, and therefore it is likely the City would need a partner that can demonstrate additional demand”).

²⁴ PFD at 89.

²⁵ COL 11, 12, 17, and 18.

Protestants propose that a citation to Water Code Section 11.124(a)(4) should be added to Conclusion of Law 12. The conclusion would read thusly:

12. The application does not state or clearly set forth the amount of water to be used for each purpose, as required by 30 Texas Administrative Code section 295.5 and Texas Water Code § 11.124(a)(4).

A reference to Water Code Section 11.124(a)(4) in Conclusion of Law 12 is consistent with Conclusions of Law 10 and 17 and with the discussion in the PFD.²⁶ It also makes clear that the City failed to comply with this statutory requirement—which is the basis of Conclusion of Law 17: “Because the application did not comply with Texas Water Code section 11.124(a)(4)”

Protestants maintain that it would be useful to the Commission, the parties, and the general public to include the reference to the statutory requirement in the Conclusion of Law 12, because construction and implementation of a statutory requirement (versus a regulatory requirement) implicates a slightly different legal standard, in that the agency’s interpretation of a regulatory or statutory requirement cannot be inconsistent with, depart from, or displace strict construction of the unambiguous statutory language. *Sw. Royalties, Inc. v. Hegar*, 500 S.W.3d 400, 406 (Tex. 2016) (citing *Firestone Tire & Rubber Co. v. Bullock*, 573 S.W.2d 498, 500 n.3 (Tex. 1978)). Accordingly, a reference to the applicable statute would make clear that the City’s failure to comply with Rule 295.5 constitutes a failure to comply with the applicable statutory requirement found in Section 11.124(a)(4), as well, which warrants denial of the application, as explained in Conclusion of Law 17.

²⁶ See PFD at 15-16 & n.81.

For similar reasons, Protestants propose that Conclusion of Law 26 include a reference to Water Code Section 11.152, so that it reads thusly:

26. The Applicant did not meet its burden of proof to establish that the Draft Permit contains conditions, or that it considered all factors required under Sections 11.147(e) and 11.152 of the Texas Water Code, that are necessary and sufficient to maintain fish and wildlife habitats. Tex. Water Code §§ 11.147(e), 11.152; 30 Tex. Admin. Code § 297.53.

The reference to Section 11.152 is consistent with Conclusion of Law 23, and it is consistent with the discussion in the PFD.²⁷

IV. CONCLUSION

For all these reasons, Protestants respectfully request that the Commission deny the City of Wichita Falls' Application, because the City has not met its burden and has not demonstrated that its Application meets the applicable statutory and regulatory requirements. Protestants further request such other and further relieve to which they may be justly entitled.

Respectfully submitted,

/s/ Lauren Ice

Marisa Perales

State Bar No. 24002750

marisa@txenvirolaw.com

Lauren Ice

State Bar No. 24092560

lauren@txenvirolaw.com

PERALES, ALLMON & ICE, P.C.

1206 San Antonio St.

Austin, Texas 78701

512-469-6000 (t) | 512-482-9346 (f)

²⁷ See, e.g., PFD at 30, 53-58. On page 58 of the PFD, at the end of the first full paragraph, there is a reference to Water Code Section 11.153, but this appears to be a typographical error. When read in context, it appears clear that the intended reference is to Water Code Section 11.152: "For the reasons discussed above, the ALJ finds that the conceptual mitigation plan fails to comply with Texas Water Code section ~~11.153~~ 11.152 and Rule 297.53."

*Counsel for William Justin O'Malley, Umhaill
Valley LLC, Kildavnet Castle LLC, and
Rockfleet Castle LLC*

/s/ William P. Lane

William P. Lane

blane@mhbgs.com

Adam N. Holmes

aholmes@mhbgs.com

McCleskey Harriger Brazill & Graf LLP

5010 University Ave., 5th Floor

Lubbock, Texas 79413

(806) 796-7332

(806) 796-7365 (fax)

Counsel for Stan, Larry, and Lonnie Horwood

/s/ Deborah Clark

Deborah Clark

P.O. Box 90

Henrietta, Texas 76365

(940) 328-5542

deborah@birdwellandclarkranch.com

*For Texoma Stewardship Coalition & Aligned
Protestants*

/s/ Janice Bezanson

Janice Bezanson

TCA Senior Policy Director

745 County Road 1537

Avinger, Texas 75630

P.O. Box 822554

Dallas, Texas 75382

janice@tcatexas.org

(512) 327-4119

For Texas Conservation Alliance

CERTIFICATE OF SERVICE

I do hereby certify that a true and correct copy of the above and foregoing document has been served via electronic service to the parties of record below, on January 19, 2024.

/s/ Lauren Ice
Lauren Ice

FOR THE APPLICANT:

Nathan E. Vassar
nvassar@lglawfirm.com
Sara R. Thornton
sthornton@lglawfirm.com
Jessie M. Spears
jspears@lglawfirm.com
Lloyd Gosselink Rochelle & Townsend, P.C.
816 Congress Ave, Suite 1900
Austin, Texas 78701
(512) 322-5800
(512) 472-0532 (fax)

FOR THE EXECUTIVE DIRECTOR:

Ruth Takeda
Aubrey Pawelka
TCEQ Environmental Law Division
P.O. Box 13087, MC-173
Austin, Texas 78711
(512) 239-6635
(512) 239-0606 (fax)
Ruth.takeda@tceq.texas.gov
Aubrey.pawelka@tceq.texas.gov

FOR THE OFFICE OF PUBLIC INTEREST COUNSEL:

Eli Martinez
TCEQ Office of Public Interest Counsel
P.O. Box 13087, MC-103
Austin, Texas 78711
(512) 239-3974
(512) 239-6377 (fax)
Eli.martinez@tceq.texas.gov

FOR CLAY COUNTY:

Frank J. Douthitt
102 South Fannin Street
Henrietta, Texas 76365
(940) 704-8274
frank@douthittLaw.com

ATTACHMENT A

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



**AN ORDER GRANTING IN PART THE AMENDED APPLICATION BY THE BRAZOS
RIVER AUTHORITY FOR WATER USE PERMIT NO. 5851
AND APPROVING ITS WATER MANAGEMENT PLAN;
TCEQ DOCKET NO. 2005-1490-WR;
SOAH DOCKET NO. 582-10-4184**

On January 20, 2016, the Texas Commission on Environmental Quality (Commission or TCEQ) considered an amended application by the Brazos River Authority (BRA or Applicant) for Water Use Permit No. 5851 and its incorporated Water Management Plan (WMP). A proposal for decision on remand (PFDR) was presented by William G. Newchurch and Hunter Burkhalter, Administrative Law Judges (ALJs) with the State Office of Administrative Hearings (SOAH), who conducted hearings concerning the original application, the amended application, and the WMP on May 9–20, 31, and June 2, 2011, and February 17–20, 23–26, 2015, in Austin, Texas. After considering the ALJs' PFDR and Proposed Order, the Commission issued an Interim Order dated January 29, 2016, by which the Commission remanded this matter to SOAH, in the form of a limited remand, for the ALJs and the parties to address implementation of the Commission's decisions on two issues, based on the existing evidentiary record.

On June 3, 2016, the ALJs submitted to the Commission their Supplement to the PFDR and a new Proposed Order, consistent with the Commission's instructions.

On August 24, 2016, after considering the Supplement to the PFDR and the ALJs' new Proposed Order, the Commission adopts the following findings of fact and conclusions of law:

I. FINDINGS OF FACT

Procedural History

1. On June 25, 2004, the Brazos River Authority (BRA or the Applicant) filed an application (Application No. 5851) for an appropriative water right.
2. Application No. 5851 was declared administratively complete by the Executive Director (ED) of the TCEQ on October 15, 2004, and was filed with the Office of Chief Clerk.
3. Notice of the application was issued by mail to all water right holders in the Brazos River Basin on April 22, 2005. Notice was published in 27 newspapers on May 11–13, 2005.
4. A public meeting on Application No. 5851 was held on May 17, 2005, in Waco, Texas. On May 4, 2006, the Executive Director of the TCEQ filed a written response to comments received at that meeting and written comments received after that meeting.
5. Numerous persons filed requests for a contested case hearing on the application. On May 5, 2010, the Commission issued an interim order granting hearing requests and referring this case to SOAH for a contested case hearing.
6. Notice of a preliminary hearing on the application before SOAH was issued by the Chief Clerk of the TCEQ on May 13, 2010.
7. The ALJs held the preliminary hearing on the application on June 7, 2010, in Austin, Texas. The ALJs issued Order No. 1 on June 8, 2010, memorializing the preliminary hearing, naming persons or entities admitted as a party to the proceeding, and setting a hearing schedule. In addition to the statutory parties, the following parties were named: Matthews Land and Cattle Company; Dow Chemical Company (Dow); Texas Westmoreland Coal Company; the City of Lubbock; Fort Bend County Levee Improvement District Nos. 11 and 15; Sienna Plantation Municipal Utility District (MUD) No. 1; the City of Bryan; the City of College Station; the Friends of the Brazos River; Helen Jane Vaughn; Lawrence Wilson; Mary Lee Lilly; the National Wildlife Federation (NWF); the Texas Parks and Wildlife Department (TPWD); the Gulf Coast Water Authority (GCWA); the City of Round Rock; Bradley B. Ware; Mike and George Bingham, William D. and Mary L. Carroll, Frasier Clark, and Robert Starks, who collectively aligned themselves as the Comanche County Growers (CCG).
8. In accordance with settlement agreements, Fort Bend County Levee Improvement District Nos. 11 and 15, Sienna Plantation MUD No. 1, Texas Westmoreland Coal

Company, and Matthews Land and Cattle Company withdrew their protests and were formally dismissed as parties.

9. In accordance with settlement agreements, the City of Lubbock, the City of Bryan, the City of College Station, GCWA, and the City of Round Rock withdrew their protests, but remained parties to the proceeding.
10. The ALJs held the evidentiary hearing on Application No. 5851 on May 9-20, 31, and June 2, 2011, in Austin, Texas.
11. The record was closed on August 19, 2011, after the parties submitted written closing arguments and responses.
12. The ALJs issued a Proposal for Decision (PFD) on October 17, 2011; and the Commission considered Application No. 5851 and the PFD on January 25, 2012.
13. The Commission, after considering the PFD and Application No. 5851, issued an interim order dated January 30, 2012, that: (1) remanded Application No. 5851 to SOAH with instructions to abate the hearing to allow the Applicant to provide additional information to the Executive Director related to its permit application in the form of a WMP; (2) required the Applicant to submit its WMP to the Executive Director within 10 months of the date of the Commission's January 30, 2012 Interim Order; (3) provided the Executive Director with 7 months to review the WMP; (4) directed the ALJs to reopen the record upon completion of the Executive Director's review and compliance with additional application public participation requirements; (5) directed the ALJs to hold a hearing on the new information, including Application No. 5851 as modified by the WMP; and (6) directed the ALJs to issue a revised PFD and proposed order.
14. The Applicant prepared and filed its WMP on November 28, 2012, which was further revised on June 12, 2013. The Executive Director completed his review on June 28, 2013.
15. On July 3, 2013, the Chief Clerk of the TCEQ mailed the combined revised notice of Application No. 5851, a public meeting, and the preliminary hearing to the persons and entities on the mailing list for Application No. 5851 and to those persons and entities required to be mailed notice under 30 Texas Administrative Code § 295.153.
16. Between July 6 and July 12, 2013, the combined revised notice of Application No. 5851 was published in 35 newspapers of general circulation within the 81 counties that are within the Brazos River Basin.
17. The Commission conducted a public meeting regarding Application No. 5851 at the Midway Independent School District Performing Arts Center in Hewitt, Texas, on July 25, 2013, to receive public comment.
18. The ALJs convened a preliminary hearing on August 26, 2013, in Austin, Texas. The ALJs issued Order No. 18 on August 28, 2013, memorializing the preliminary hearing,

naming additional persons and entities admitted as parties to the proceeding, and setting the hearing schedule for the second evidentiary hearing. In addition to the statutory parties, the following parties were named in this matter: Dow; the City of College Station; the City of Lubbock; the City of Bryan; Friends of the Brazos River, Helen Jane Vaughn, Lawrence Wilson, Mary Lee Lilly, Brazos River Alliance, Ken W. Hackett, and Joe Williams (collectively, FBR); NWF; TPWD; GCWA; Chisholm Trail Ventures, L.P.; George Bingham; Robert Starks; Frasier Clark; William D. and Mary Carroll; William and Gladys Gavranovic; Bradley B. Ware; NRG Texas Power, LLC (NRG); Friends of Lake Limestone and Mark Bissett; the City of Houston; Possum Kingdom Lake Association (PKLA); City of Round Rock; Mike Bingham; and the City of Granbury, Hood County, and Lake Granbury Waterfront Owners' Association (collectively, the Lake Granbury Coalition or LGC).

19. On October 21, 2013, the ALJs abated the matter and certified questions to the Commission regarding the applicability to Application No. 5851 of the environmental flow rules for the Brazos River Basin that the Commission would later adopt on February 12, 2014.
20. After considering the certified questions on December 11, 2013, the Commission issued its December 17, 2013 Interim Order stating that Texas Water Code § 11.147(e-3) required the environmental flow standards to be applied immediately to Application No. 5851 and remanding the case to SOAH.
21. On January 7, 2014, the ALJs issued a revised scheduling order (Order No. 22) that abated this matter until August 14, 2014, to allow the Applicant to revise its WMP and update its application to incorporate the environmental flow standards.
22. The Applicant submitted an updated WMP to the Executive Director on May 13, 2014, and the Executive Director completed his review of the application and updated WMP on August 18, 2014.
23. During the period leading up to the second evidentiary hearing, the following protesting parties withdrew their protests of Application No. 5851 and were granted the right to participate in this case only as non-aligned, interested parties: Chisholm Trail Ventures, L.P.; City of Houston; George Bingham; Robert Starks; Frasier Clark; William D. and Mary L. Carroll; PKLA; and NRG. Additionally, GCWA, Friends of Lake Limestone, Mark Bissett, and Joe Williams withdrew as parties.
24. The second evidentiary hearing on Application No. 5851 and its updated WMP was held on February 17-20 and 23-26, 2015, in Austin, Texas. William and Gladys Gavranovic, Bradley B. Ware, and Mike Bingham did not attend nor were they represented at the evidentiary hearing.
25. The ALJs issued a Proposal for Decision on Remand (PFDR) on July 17, 2015, and the Commission considered Application No. 5851 with the WMP, and the PFDR on January 20, 2016.

26. The Commission issued an Interim Order dated January 29, 2016, that: (1) remanded this matter to SOAH in the form of a limited remand, to clarify the existing record and allow the parties and the ALJs to implement the Commission's decisions on two issues—reservoir capacities and return flows—in the Special Conditions and WMP portions of the Proposed Permit recommended by the ALJs; (2) instructed the ALJs not to reopen the evidentiary record in addressing and making recommendations on these two remanded issues; (3) requested determinations and recommendations on revised permit and WMP terms to address the remanded issues; and (4) called for the ALJs to recommend the procedure to ensure WMP incorporation of the Commission's decisions, and the manner in which the remanded issues should be incorporated into the ALJs' Proposed Order and recommended Permit No. 5851.
27. Following extensive additional briefing by the parties on the two remanded issues, and pursuant to the schedule directed by the ALJs (Order Nos. 36 and 37) the ALJs issued a Supplement to the PFDR and a new Proposed Order on June 3, 2016.

Background

28. The 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. 2925 (Allens Creek Reservoir, which the Applicant owns in conjunction with the Texas Water Development Board and the City of Houston).
29. The 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), and Certificate No. 12-5164 (Lake Somerville).
30. The Applicant owns the water rights authorized by Certificate Nos. 12-5166 and 12-5167, which authorize various uses of water within the Applicant's other certificates and permits.
31. The 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 low by making releases from tributary reservoirs in which the supply is more abundant.
32. The TCEQ recently amended the Applicant's Excess Flows Permit (Certificate No. 12-5166) to include the diversion points for the proposed Allens Creek Reservoir.

33. The Applicant abandoned its Certificate No. 12-2939 that was associated with diversions for steam electric power generation downstream of Lake Belton.
34. TCEQ amended Permit No. 2925, the Allens Creek Reservoir water right, based on the statutory change in 2011 that modified the timeframe for construction of this new reservoir. The Allens Creek Reservoir must now be constructed by 2025.

Application No. 5851

35. The Applicant initially applied for new Water Use Permit No. 5851 (Permit No. 5851 or the System Operation Permit), with a priority date of October 15, 2004, to authorize a new appropriation of state water in the amount of 421,449 acre-feet per year (af/yr or AFY) in firm water and 670,000 af/yr in interruptible water for multiple uses, including domestic, municipal, agricultural, industrial, mining, recreation, and other beneficial uses on a firm basis in the Brazos River Basin.
36. The Applicant amended the application to include as a part of Permit No. 5851 the WMP and Technical Report and Appendices (collectively, the WMP), all of which would be incorporated into proposed Permit No. 5851.
37. The amended and updated Application No. 5851 seeks:
 - a. A new appropriation of non-firm state water in the amount of 1,001,449 af/yr of water at the Gulf of Mexico for multiple uses, including domestic, municipal, agricultural, industrial, mining, recreation, and other beneficial uses in the Brazos River Basin. This appropriation request was clarified during the 2015 hearing on the merits to be limited to the amount of water available as shown in the WMP. This new appropriation of water can only be made available by the Applicant through the system operation of its water rights. To the extent water is diverted upstream, the amount of the water available under the new appropriation downstream is reduced and will itself vary depending upon the location of its diversion and use;
 - b. Diversion of the water authorized by this permit from: (1) the existing diversion points authorized by the Applicant's existing water rights (including contractually authorized diversion points); (2) the Brazos River at the Gulf of Mexico; and (3) at such other diversion points that are identified and included in the Applicant's WMP;
 - c. An exempt interbasin transfer authorization to transfer and use, on a firm and non-firm 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 non-firm basis, in that part of the county or municipality and the municipality's retail service area not within the Brazos River Basin;

- d. An appropriation of 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 the Applicant's reservoirs. The appropriation of return flows would be subject to interruption by direct reuse or termination by indirect reuse within the discharging entity's city limits, extraterritorial jurisdiction, or contiguous water certificate of convenience and necessity boundary;
- e. 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;
- f. 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: (1) the appropriated water; (2) waters that are being conveyed via pipelines and subsequently discharged into the Brazos River or its tributaries or stored in the Applicant's reservoirs; (3) surface water imported from areas located outside the Brazos River Basin for subsequent use; (4) in-basin surface water and groundwater subject to the Applicant's control; (5) waters developed from future Applicant projects; and (6) reuse of surface and groundwater-based return flows appropriated in this permit; and
- g. A term permit, pursuant to Texas Water Code § 11.1381, for a term of 30 years from the issued date of the permit, or until the ports are closed on the dam impounding Allens Creek Reservoir, whichever is earlier, to allow the Applicant to use the water appropriated under Water Use Permit No. 2925, as amended, until the construction of the Allens Creek Reservoir. The Applicant requested the term permit to impound, divert, and use not to exceed 202,000 af/yr of water per year at the Gulf of Mexico.

38. The Applicant's amended application with the WMP:

- a. Includes TCEQ's adopted environmental flow standards;
- b. Includes an updated BRA accounting plan for BRA reservoirs, stream reaches of the Brazos River and its tributaries where water will be delivered and/or water authorized under Permit No. 5851 will be diverted, application of the adopted environmental flow standards, and other reference and summary information;
- c. Specifies diversion points for the new appropriation as follows: (1) the diversion points authorized in BRA's existing water rights (including contractually authorized diversion points); (2) the Brazos River's outlet at the Gulf of Mexico;

and (3) specified diversion points and reaches identified in BRA's WMP and associated technical documents, including accounting plans. Diversion rates at the diversion reaches are set out in BRA's WMP and associated technical documents, including accounting plans; and

- d. Removes the request in Application No. 5851 for recognition that Permit No. 5851 would prevail over inconsistent provisions in BRA's existing water rights regarding system operation.
39. During the evidentiary hearing on remand, the Applicant clarified that it was seeking an appropriation of water as shown by the appropriation runs for the various use scenarios in the WMP. Thus, the Applicant, with its amended application, seeks to appropriate a maximum amount of 516,955 af/yr of water as a result of system operations. This appropriation will be subject to and limited by Permit No. 5851 and the WMP. The amount of this new appropriation of water includes the current return flows requested in this application.

Texas Water Code §§ 11.124, 11.125, 11.128, and 11.135 Requirements

- 40. Permit No. 5851 contains the required provisions outlined in Texas Water Code § 11.135, with the exception of the time within which to construct water works. The Applicant does not propose to construct any new water works to exercise Permit No. 5851. The Applicant, instead, plans to rely on existing facilities and coordinated operations of those facilities. Because the Applicant plans no new construction, location and description information, commencement and completion dates for the construction, and the time required for the application of the water to the proposed use are not necessary.
- 41. The application is in writing and sworn, contains the name and address of the Applicant, and identifies the source of supply.
- 42. No one holds a lien on the Applicant's water rights.
- 43. The Applicant has paid the fees required by Texas Water Code § 11.128.
- 44. The Applicant in its application, as amended to include the WMP, provided maps that show existing reservoirs and diversion points and reaches, stream reaches for the bed and banks authorization, and locations where BRA intends to use the water. The Applicant also provided data identifying discharges for return flows.

Diversion Amount, Diversion Rates, and Diversion Points

- 45. Permit No. 5851 states maximum annual water diversion limits that are equal to the annual use by the demand level scenario that is effective at the time of the diversion.
- 46. The four demand levels are: (1) Current Contracts (Level A); (2) Current Contracts with Comanche Peak Nuclear Power Plant (CPNPP) Expansion (Level B); (3) Current Contracts with Allens Creek Reservoir (Level C); and (4) Current Contracts with Allens

Creek Reservoir and CPNPP Expansion (Level D). Current contracts include demands shown to be satisfied by the System Operation Permit in the 2011 Region G and Region H Water Plans. The demand levels represent four different possible scenarios that could happen in the future based on the State and Regional Water Plans and other information available to BRA. For each of the demand levels, the permit identifies the total maximum amount of water that BRA can use throughout the basin depending on the applicable demand level, and a total maximum amount of water that BRA can divert in each reach, depending on the applicable demand level.

47. BRA's maximum annual use of water within a reach will be limited in two ways, both subject to a special condition in the permit allowing BRA to demonstrate that it has additional sources of supply sufficient to offset conditions of reservoir sedimentation: (1) BRA will be limited to 86% of the total maximum amount of water available under the applicable demand scenario identified in the permit; and (2) BRA's water use within a reach will be limited to 1,460 af/yr or 86% of the maximum amount of water identified in Tables G.3.14 through G.3.25 of the WMP, whichever is more, for that reach and the applicable demand level.
48. The amount of water BRA is authorized to use is stated in definitive terms.
49. The WMP prescribes the maximum diversion rate limits by reach for run-of-river diversions under the System Operation Permit. The sum of all diversions under Permit No. 5851 within each reach cannot exceed that maximum diversion rate.
50. Setting the maximum diversion rate by a defined reach is consistent with TCEQ practice.
51. No additional diversion rates are proposed for diversions from reservoirs because the authorized diversion rates in BRA's current reservoir water rights will govern diversions that are lakeside.
52. Permit No. 5851, through its WMP, specifies diversion points and diversion reaches which are: (1) diversion points authorized by BRA's existing water rights, including those that have been added contractually on stream channels downstream of BRA reservoirs; (2) locations where future demands are identified in the 2011 Regional Water Plans (Regions G and H) as using supplies from the System Operation Permit; and (3) the Richmond to Gulf of Mexico reach where BRA anticipates additional supplies from the System Operation Permit would be used.
53. The WMP evaluates the impacts resulting from the use of the System Operation Permit appropriation at those actual and proposed diversion points and diversion reaches. There are 40 defined diversion reaches described in the WMP. Demands within these reaches were modeled as part of the WMP, and include the following:
 - a. Demands at diversion points authorized by BRA's existing water rights, including current contractually authorized diversion points on stream channels downstream of BRA reservoirs;

- b. Demands in reaches in which the 2011 Regional Water Plans (Region G and Region H) list the System Operation Permit as a recommended source of supply to meet demands; and
 - c. Demands in the reach from Richmond to the Gulf of Mexico.
- 54. Identifying a diversion reach is an accepted practice of TCEQ.
 - 55. Modeling diversions by reach where specific diversion points are anticipated is not problematic from a modeling perspective and the modeling for the Application shows how much water can be developed under the System Operation Permit without affecting senior water rights.
 - 56. The System Operation Permit authorizes storage of System Operation Permit water. Therefore, BRA may use 30 Texas Administrative Code § 297.102(b) to add diversion points in the future and those new diversion points will be specifically identified and provided to the TCEQ before diversions can occur at the new location.
 - 57. To the extent that new diversion points are added in the future based on new contracts, the new diversions of System Operation Permit water must be within the amount authorized for the reach in which the customer's diversion is located and the customer's diversion rate must not cause BRA to exceed the applicable maximum aggregate diversion rate in Table 4.6 of the WMP.
 - 58. Permit No. 5851 and the WMP use actual and planned diversion points to determine water available for appropriation.

Water Availability, Drought of Record, Impairment of Existing Rights

- 59. BRA's preferred permit is BRA Exhibit No. 132B, which proposes to reduce the amount of water BRA is authorized to use to 516,955 af/yr.
- 60. For Permit No. 5851, there are three sources of unappropriated water: unappropriated riverine flows; return flows of treated wastewater of others; and water available for appropriation from BRA's existing reservoirs. Another source of water is BRA's own return flows.
- 61. The Brazos River has a large uncontrolled drainage area downstream from BRA's reservoirs. The flows in this uncontrolled drainage area vary greatly. During times of high flow, there is water in the area that cannot be used by existing water rights and that is not needed to meet environmental flow requirements, but these flows are not reliable.
- 62. Through the use of its storage, BRA can make BRA's sources of water identified in FOF 60 into a reliable supply by using stream flows not being used by senior water rights

when that water is available, and providing water from storage when there are little or no stream flows available for use.

63. In determining water availability, the permitted capacity of a reservoir is used when considering a new appropriation from the same reservoir.
64. The Applicant's WMP examined alternative water availability scenarios because the amount of water available depends, in part, upon the location of uses of water, as well as the development of authorized but not yet constructed projects. These scenarios are referred to as Demand Levels A, B, C, and D.
65. Demand Level A is a current conditions approach. It models all of BRA's existing customers and all demands shown by the 2011 Regional Water Plans (Regions G and H) to be supplied by the System Operation Permit with the remainder of the water available for appropriation being taken in the reach below Richmond. As modeled by the Applicant, Demand Level A shows 381,068 af/yr as the maximum possible use.
66. Demand Level B anticipates expansion of the CPNPP, a major demand located relatively high in the basin. The location of this demand results in an overall reduction in water availability as compared to Demand Level A. As modeled by the Applicant, the maximum possible use under Demand Level B is 344,625 af/yr.
67. Demand Level C anticipates construction of the Allens Creek Reservoir without the CPNPP expansion. As modeled by the Applicant, this results in the largest possible use of 516,955 af/yr.
68. Demand Level D anticipates both expansion of the CPNPP and construction of the Allens Creek Reservoir. As modeled by the Applicant, it produces a maximum possible use of 482,035 af/yr.
69. Permit No. 5851 authorizes the Applicant's diversion and use of water according to the Demand Level facts that exist at any given time in the future.
70. The water availability quantities in the WMP firm appropriation scenarios are those required to generate a firm water supply and do not include water for interruptible or non-firm water sales. Any amount of additional water appropriated would be a new appropriation at a junior priority.
71. The WMP uses authorized reservoir storage capacity for its appropriation models, but actual or projected capacity for its operational models.
72. In calculating the appropriation amounts for the permit for the four Demand Levels, the WMP failed to properly account for the fact that BRA's reservoirs have lost capacity due to sedimentation.
73. In order to account for these losses of reservoir capacities due to sedimentation, Permit No. 5851 should include a special condition to immediately reduce BRA's maximum

annual diversion and use amounts under each of the four Demand Levels, and each of the maximum diversions by river reach, by 14%.

74. The special condition in Permit No. 5851 accounting for reservoir capacity losses, however, should also provide a way for BRA to subsequently be able to demonstrate that it has sufficient additional sources of supply available to offset those reservoir storage losses, and thus for BRA to have restored for annual diversion and use up to the full amount of authorized appropriation under the applicable demand scenario or reach limitation.
75. In calculating the appropriation amounts for the Permit for the four Demand Levels, BRA included 47,332 acre-feet of BRA's own groundwater-based and surface water-based return flows.
76. The annual appropriation amounts authorized in the Permit for the four Demand Levels should each be reduced by 47,332 acre-feet to account for BRA's own groundwater-based and surface water-based return flows that were included in the appropriation amounts. With the adjustment, the appropriation amounts for the permit are:
 - Demand Level A – 333,736 af/yr;
 - Demand Level B – 297,293 af/yr;
 - Demand Level C – 469,623 af/yr; and
 - Demand Level D – 434,703 af/yr.
77. The permit should authorize the Applicant to appropriate a diversion amount depending on the applicable demand scenario.
78. The Applicant is not required in modeling the availability of water for Permit No. 5851 to fully utilize all of its existing storage rights every year before run-of-river water under the System Operation Permit can be used.
79. WMP modeling resulted in complete utilization of the Applicant's existing rights without the necessity of making releases. Requiring the Applicant to fully utilize its existing rights before using run-of-river water is not required and would frustrate the purpose and goal of system operation.
80. The Applicant's existing water rights permits do not require that storage under the 1964 System Operation Order be at a junior priority. Instead, they allow storage at the existing priority but the water so stored is subject to release for downstream needs at TCEQ's direction.
81. The Water Availability Model (WAM) used by TCEQ operates in such a fashion that water storage capacity emptied at the junior priority is refilled at the junior priority.
82. The Brazos River Basin has experienced serious drought conditions since mid-2008, particularly the upper portion of the basin above Possum Kingdom Reservoir.

83. The recent drought ended on May 26, 2015.
84. It is possible that the recent drought reduced the amount of water available for appropriation below the amounts shown in the WMP. It is likely it was a worse drought than the drought of record for the watershed above Possum Kingdom Reservoir.
85. It is unknown whether the Brazos River Basin as a whole suffered a worse drought than the 1950s drought of record.
86. Determining the ultimate impact of this drought on water availability under Permit No. 5851 will require a major effort to evaluate the current impact of the drought, and halting permit processing to undertake this analysis is not justified.
87. No purpose would be served by either delaying permit processing until complete evaluation of the recent drought or abating it until new hydrologic models could be developed to include the recent drought hydrology.
88. In order to properly account for the recent drought, the following condition should be included in Permit No. 5851:

In recognition of current drought conditions, BRA shall perform a detailed evaluation of whether the recently-ended drought: (1) represents a drought worse than the drought of record of the 1950s in the Brazos River Basin; and (2) decreases the amount of water available for appropriation under this permit. BRA shall provide a report to the TCEQ documenting its findings within nine months after issuance of this permit. If the report concludes that the recently-ended drought decreases the amount of water available for appropriation under this permit, then the amount of that reduction shall be determined and the appropriation amounts specified in Paragraphs 1.A and 5.D.5 of this permit shall be correspondingly reduced.

89. Under TCEQ's water availability rule (30 Texas Administrative Code § 297.42), no specific degree of reliability is required for water appropriated by Permit No. 5851 because it is one of the recognized exceptions of subsection (d). Instead, the required availability of unappropriated water for these special type projects is determined on a case-by-case basis based upon whether the proposed project can be viable for the intended purposes and the water will be beneficially used without waste.
90. TCEQ's consideration of subsequent amendments to the WMP (including certain changes to the accounting plan) will be treated as an amendment to the permit, and depending on the type of amendment, may be subject to TCEQ's notice and contested case hearing requirements as well as all other requirements applicable to a major water right amendment.
91. To protect existing water rights, the WAM uses a "dual simulation" modeling technique that prevents any existing BRA water right from using more water at its original priority date than it could have without the System Operation Permit.

92. There are multiple protections for existing water rights in the System Operation Permit, including the accounting plan and the other provisions of the WMP. The environmental flow conditions in Permit No. 5851 will prohibit diversions at times of low flow, leaving water that can be used by existing downstream senior water rights that are not subject to the same environmental flow requirements.
93. The Applicant's ability to make water available through system operation, while protecting senior rights and environmental flows, will be improved by giving the Applicant 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.
94. Environmental flow conditions would apply to any impoundment of inflows at a reservoir under Permit No. 5851 even when BRA is exercising this operational flexibility.
95. Vested riparian rights will be fully protected by the environmental flow requirements in the System Operation Permit.
96. There will be no adverse effect on existing water rights by the System Operation Permit.
97. The water requested by BRA is available for appropriation.

Beneficial Use

98. The System Operation Permit would authorize diversion of water for domestic uses, municipal uses, agricultural and industrial uses, mining, and recreation, which are all recognized beneficial uses.
99. Of the 705,000 af/yr of water rights currently owned by BRA, 99% of this available water is under contract already.
100. There is demand for additional water supplies in the Brazos River Basin. BRA has pending requests for additional long-term water supply. The approved 2011 Regional Water Plans for Regions G and H forecast that substantial additional water supplies will be needed between now and 2060. The increase in demand for water in both regions is primarily due to population growth. There are projected shortages for irrigation and manufacturing uses. Water users in Fort Bend County must convert a large portion of their current water use from groundwater to surface water.
101. The adopted 2012 State Water Plan, based on the 2011 Regional Water Plans for Regions G and H, recommends a total amount of 110,249 af/yr of water to be supplied from the System Operation Permit to meet projected demands for a combination of

municipal, industrial steam-electric, manufacturing, and mining uses in the Regions G and H planning areas.

102. BRA has been approached by a number of current and prospective customers that have requested additional long-term water supply from the System Operation Permit. To date, BRA has received requests from 28 entities for over 300,000 af/yr of water.
103. There is an immediate need for additional water supplies in a large portion of the Brazos River Basin and BRA intends to beneficially use the newly appropriated water by contracting with its existing and future customers who have a need for these additional supplies.

Environmental Flows

104. The environmental flow conditions that are applicable to the System Operation Permit are set out in Tables 4.3A–4.3L of the WMP. These tables describe the minimum flows that must exist at each identified measurement point during specified hydrologic conditions within a season before diversions under the System Operation Permit may occur. The measurement points in the WMP coincide exactly with the applicable measurement points for the Brazos River Basin in the TCEQ rules. 30 Texas Administrative Code § 298.480(a)(6)-(8), (10)-(11), (13)-(19).
105. Table 4.4 of the WMP describes which measurement point is applicable to each river reach. The environmental flow conditions applicable to a diversion are determined based upon the reach in which the diversion is located.
106. Of the 40 river and lake reaches identified in the WMP, nine use an upstream measurement point to govern all or part of the diversions in the reach. Four of these reaches are associated with reservoirs: Possum Kingdom Reservoir, Dennis gage to Lake Granbury dam, Glen Rose gage to Lake Whitney dam, and Leon River at Gatesville to Lake Belton dam. For two of the reaches, the applicable measurement point is in the middle of the reach: Aquilla Creek/Brazos River confluence to Highbank gage, and Richmond gage to the Gulf of Mexico. There are three reaches where all diversions in the reach will look to an upstream measurement point: Palo Pinto gage to Dennis gage; Cameron gage to Brazos River and Little River confluence; and Easterly gage to the Brazos River and Navasota River confluence.
107. Storage at BRA system reservoirs under Permit No. 5851 will be governed by the measurement point immediately downstream of each respective dam. Except for Possum Kingdom Reservoir, Lake Whitney, Lake Granbury, and Lake Belton, lakeside diversions will be governed by the next downstream measurement point. Lakeside diversions under the System Operation Permit occurring within Possum Kingdom Reservoir, Lake Whitney, Lake Granbury, and Lake Belton will be according to the applicable measurement point that lies upstream of each respective lake. For diversions above Lake Granbury, Lake Whitney, and Lake Belton, the applicable measurement point is upstream of each lake.

108. To divert System Operation Permit water, whether the reach is upstream or downstream of the applicable measurement point, the flow passing the measurement point gage must not be lower than the environmental flow requirement. For diversions upstream of the applicable measurement point, the daily maximum allowable run-of-river diversion under the System Operation Permit will be limited such that the daily flow at the measurement point gage is not reduced below the applicable environmental flow standard. For diversions located downstream of a measurement point, the environmental flow requirement will be calculated by adding the aggregate downstream System Operation Permit diversion rate to the applicable environmental flow standard at the applicable measurement point gage.
109. For each season and each hydrologic condition at the measurement point, there is a corresponding environmental flow condition which must be met before diversions under the System Operation Permit may occur.
110. Each measurement point is located in a defined geographic area which is used to determine the hydrologic condition. The WMP identifies three geographic areas, which coincide with the TCEQ's rules and are delineated by major existing reservoirs along the main stem of the Brazos River.
111. The WMP determines the hydrological condition using the Palmer Hydrological Drought Index (PHDI), as required by TCEQ.
112. Because the climate zones used by the National Climatic Data Center (NCDC) to calculate the PHDI each month are not exactly coincident with the WMP geographic areas, an area-weighted composite PHDI is calculated by adding together the NCDC's PHDI for each climate zone that has first been multiplied by the fraction of the area intersecting the geographic area.
113. The composite PHDI is then compared to the values described in Table 4.12 of the WMP Technical Report to determine whether the hydrologic condition is dry, average, or wet. 30 Texas Administrative Code § 298.470(c).
114. Because the NCDC does not report the preceding month's PHDI on the first day of the succeeding month, the Applicant will operate under an interim hydrologic condition between the first day of the season and the day the final hydrologic condition is determined. To determine the interim hydrologic condition, the interim PHDI values provided by the NCDC will be used.
115. It is reasonable to use the interim PHDI values to determine an interim hydrologic condition because it is likely the hydrologic condition will not change once the NCDC's PHDI values are finalized. If there is any non-achievement of environmental flow conditions as a result of using the interim PHDI and hydrologic condition in the first few weeks of a season, BRA will report the non-achievement in an annual Environmental Flow Achievement Report to the TCEQ.

116. For each measurement point, a certain number of high flow pulses is required per season depending on the hydrologic condition. 30 Texas Administrative Code § 298.480.
117. A high flow pulse begins when the flow at the measurement point becomes higher than the applicable pulse trigger flow and the pulse ends when either the applicable volume condition or the applicable duration condition is achieved.
118. Consistent with the TCEQ rules, the WMP prohibits Applicant from diverting or storing water under the System Operation Permit if such storage or diversion would prevent meeting a seasonal schedule or individual high flow pulse at the applicable measurement point, unless the seasonal schedule has already been met.
119. Storage and diversion under the System Operation Permit are authorized during high flow pulse events if: (1) the stream flow is not reduced below the pulse trigger flow; or (2) the number of pulse events exceeds the frequency criteria. Storage and diversion under the System Operation Permit may also continue during a pulse as long as the storage amount or diversion amount is lower than the applicable diversion rate trigger level.
120. The diversion rate trigger levels in the WMP were developed in accordance with TCEQ rules and are defined as 20% of the pulse trigger flow. 30 Texas Administrative Code § 298.485(b).
121. As part of the development of the WMP, Applicant evaluated how high flow pulses relate between adjacent selected measurement points. The evaluation illustrated the complex temporal relationship between pulses occurring at adjacent upstream and downstream measurement points because of travel time between measurement points, existing structural and operational influences, and pulse magnitude relative to diversion rates. Because of these factors, operations and accounting under the WMP will manage storage and diversion within a reach according to the measurement point applicable to that reach.
122. The use of one measurement point and the use of upstream measurement points are permitted by TCEQ's rules and are justified considering the distance between measurement points, travel time, channel losses, attenuation, magnitude of pulses relative to base flow conditions, intervening inflows at large confluences, intervening structures, and different hydrologic conditions in different geographic areas.
123. The WMP allows BRA to temporarily store pulse events. If impounded flows under the System Operation Permit would prevent the achievement of a qualifying pulse event at the applicable measurement point and should be released, BRA will coordinate with the United States Army Corps of Engineers (USACE) (if the reservoir's dam is operated by the USACE), and releases of the pulses will conform to existing BRA and USACE water control plans. BRA will coordinate its operational release pattern with downstream flow patterns to increase the probability that an intended pulse achievement will occur at a downstream measurement point and to ensure the release conforms to any water control plan.

124. Temporary storage of pulse events is a practical reality. A pulse event coming into a reservoir will be captured inside the reservoir. Temporary storage of a pulse is necessary to determine: (1) if storage is occurring under the System Operation Permit; and (2) whether applicable environmental flow conditions are being met.
125. While the WMP does not specify a period of time in which a qualifying pulse must be released (if one is required to be released), the pulse requirements will need to be satisfied in accordance with the environmental flow conditions if BRA intends to use the water under the System Operation Permit. BRA's best chance of meeting the environmental flow conditions will be to make the release consistent with other hydrological events that are occurring at the same time.
126. The environmental flow portion of the WMP Accounting Plan tracks what happens with respect to the environmental flow requirements, includes calculations that classify high flow pulses according to flow, duration, and volume, and tracks releases of high flow pulses that are temporarily stored.
127. BRA will generate and submit to the TCEQ an Environmental Flow Achievement Report once per year. The report will summarize storage and diversions under the System Operation Permit occurring during the previous year with respect to the environmental flow conditions at each measurement point. If the report indicates that the WMP environmental flow conditions were not achieved due to storage or diversion under the System Operation Permit, BRA will include in the report an action plan that describes how BRA will prevent further non-achievement from occurring during System Operation Permit storage and diversion.
128. The environmental flow conditions for Permit No. 5851 include the exact measurement points, seasons, and hydrologic conditions as those found in the TCEQ rules. The flow values at each measurement point are the flow values adopted by TCEQ.
129. The environmental flow conditions for the System Operation Permit are subject to adjustment by the Commission pursuant to Texas Water Code § 11.147(e-1).
130. Even though a separate analysis under Texas Water Code §§ 11.150, 11.151, and 11.152 is no longer required with the adoption of the Senate Bill 3 environmental flow standards for the Brazos River Basin, BRA has nevertheless assessed the effects of Permit No. 5851 on fish and wildlife habitat, water quality, bays and estuaries, and groundwater.
131. With respect to the assessment of the effects of BRA's application on fish and wildlife habitat, the environmental flow conditions in the permit, which are consistent with TCEQ's adopted environmental flow standards, will be protective of instream uses. The System Operation Permit uses already-permitted reservoirs. This limits the effect of construction of new reservoirs on fish and wildlife habitat. The System Operation Permit will use run-of-river flows during times when these flows are available instead of using BRA's existing water rights. This strategy will allow BRA to save water in storage under

its existing water rights for delivery downstream when river flows are not high enough to meet environmental flow conditions and allow for diversions under the System Operation Permit. This strategy will benefit instream uses by providing more times of higher stream flows closer to the environmental flow conditions than would have otherwise occurred without the System Operation Permit. BRA has adopted and implemented reservoir operating guidelines to manage the frequency and magnitude of reservoir level fluctuations to avoid or minimize impacts on reservoir fisheries, including fish and wildlife habitat.

132. With respect to water quality, recent studies on the Brazos, Little, and Navasota Rivers relating to water quality conditions (temperature and dissolved oxygen) evaluated flow levels lower than or consistent with the System Operation Permit's environmental flow conditions. These studies showed achievement of temperature and dissolved oxygen goals at those flow conditions that are comparable to the System Operation Permit's environmental flow conditions.
133. BRA has agreed in its amended Memorandum of Understanding with TPWD to limit operations under the System Operation Permit so that its operations do not reduce flows to less than the lowest average flow for seven consecutive days in a two-year period (7Q2) at seven locations, which are in addition to the applicable measurement points, and BRA will collect routine water quality monitoring data at or near eight locations.
134. The bay and estuary system for the Brazos River is limited. The Brazos River estuary is a river-dominated estuary that has no directly associated barrier island embayment. In recognition of these facts, the Senate Bill 3 environmental flow standards provide sufficient inflows to support a sound ecological environment at the mouth of the Brazos River. Because the Brazos River has no natural bay and limited connection to associated existing bays and the Brazos River estuary is dominated by river flows, the System Operation Permit is not anticipated to have an adverse impact on any bay or estuary.
135. The System Operation Permit will not affect groundwater resources or impair existing uses of groundwater, groundwater quality, or spring flow in the Brazos River Basin.

Public Welfare, Public Interest, Instream Uses

136. The approved 2011 Regional Water Plans for Regions G and H forecast that substantial additional water supplies will be needed between now and 2060.
137. The 2011 Region G Regional Water Plan anticipates that Permit No. 5851 will supply 86,429 af/yr of water by 2060 to meet municipal and steam-electric generation demands.
138. Region H projects that, between 2010 and 2060, the water supply needs region-wide will grow from 2,376,414 af/yr to 3,524,666 af/yr. The 2011 Region H Regional Water Plan anticipates that Permit No. 5851 will supply a total of 25,347 af/yr to meet municipal, manufacturing, mining, and other demands in the region between 2010 and 2060.

139. The System Operation Permit water supply strategy has been adopted as a recommended water supply strategy in the 2012 State Water Plan, which recommends that 110,249 af/yr of water be supplied for various uses from the System Operation Permit.
140. BRA has continued to receive requests for long-term water supply and to date has received requests from 28 entities for over 300,000 af/yr of water.
141. The water made available from Permit No. 5851 will address anticipated water shortages that are identified in the current adopted State and Regional Water Plans. Without the System Operation Permit, the Brazos River Basin will be faced with water supply shortages.
142. As compared to alternative water supply strategies, such as new reservoir construction, identified in the 2011 Region G and Region H water plans, the unit cost of the System Operation Permit water is substantially less.
143. Permit No. 5851 water is readily available and does not require significant land acquisitions, permitting, and construction.
144. The low cost of the water coupled with its availability in the near-term will help the Applicant stabilize its water rates.
145. The environmental impacts of the System Operation Permit are far less than the environmental impacts that might be associated with an alternative new water supply project, such as the construction of a new reservoir.
146. BRA is committed to providing water out of the System Operation Permit to the Texas Water Trust and executed an amendment to its Memorandum of Understanding with TPWD reaffirming this commitment. BRA has also committed to limiting operations under the System Operation Permit so that such operations do not reduce flows to less than 7Q2 flow values at seven identified locations within the Brazos River Basin, and will be conducting additional environmental studies at eight locations in the Brazos River Basin for the benefit of the basin and bay area stakeholder committee.
147. BRA has agreed to maintain environmental flows that were required by BRA's Federal Energy Regulatory Commission (FERC) license for its now-decommissioned hydroelectric facilities at Possum Kingdom Reservoir. Those conditions are incorporated into Permit No. 5851 as Special Condition 5.C.5.
148. With the environmental flow conditions included in the System Operation Permit, the permit will maintain adequate flow for a wide variety of recreational uses below Possum Kingdom Reservoir in the John Graves Scenic Riverway.
149. BRA, along with TPWD, has developed operating guidelines to manage the frequency and magnitude of reservoir level fluctuations to avoid and minimize impacts on reservoir

fisheries and has incorporated those guidelines into the WMP. These guidelines will provide direction to TPWD fisheries managers on how BRA can be anticipated to manage the reservoirs, and allow TPWD to minimize or mitigate impacts to fisheries, or adjust its management and stocking strategies.

150. BRA has developed general guidelines for daily reservoir operations. Release decisions are made to provide for beneficial use of water downstream while at the same time considering local water supply needs around the reservoirs, environmental needs, and recreational uses.
151. Operations under the System Operation Permit as set out in the WMP will not cause chloride or total dissolved solid concentrations in the Brazos River Basin to exceed TCEQ's water quality standards.
152. The System Operation Permit complies with and implements the TCEQ's adopted environmental flow standards.
153. The System Operation Permit will allow BRA to provide water for a wide variety of beneficial uses including municipal, industrial, and agricultural uses.
154. BRA has adopted and implemented water conservation and drought contingency plans and these plans are consistent with the requirements of Chapter 288, Title 30 of the Texas Administrative Code.
155. The System Operation Permit is a water conservation strategy that reduces the waste of water and improves the efficient use of water through coordinating reservoir operations with unappropriated stream flows, increases BRA's recycling and reuse of water for the benefit of its customers, and makes additional water available for future and alternative uses.
156. The System Operation Permit will not be detrimental to the public welfare, and in fact provides significant public welfare benefits.

Consistency with Water Plans

157. The System Operation Permit is a recommended water management strategy in the approved 2011 Regional Water Plans for the Region G and Region H planning regions and is a recommended strategy in the most recently adopted state water plan, *2012 Water for Texas*, and is therefore consistent with those plans.

Conservation and Drought Planning

158. BRA has adopted water conservation and drought contingency plans. TCEQ has approved these plans and determined they are consistent with the requirements in Chapter 288, Title 30 of the Texas Administrative Code.

159. BRA requires compliance with its adopted water conservation plan and drought contingency plan. BRA's water supply contracts require customers to implement a water conservation plan and meter water usage. The customers must operate and maintain facilities in a manner that will prevent unnecessary waste of water.
160. The System Operation Permit itself reduces the waste of water, improves the efficiency in water use by coordinating reservoir operations with unappropriated stream flows, increases the recycling and reuse of water, makes more water available from the facilities that are already in place, and requires the implementation of water conservation plans to help reduce or maintain the consumption of water, prevent or reduce waste of water, maintain or improve the efficient use of water, and prevent the pollution of water.
161. BRA will use reasonable diligence to avoid waste and achieve water conservation.
162. BRA presented evidence that supports the proposed use of the water with consideration of the water conservation goals in its plan and demonstrates that BRA evaluated water conservation as an alternative, but found it was insufficient to produce the amount of water needed or required significant financial resources to develop. The System Operation Permit itself is a form of water conservation.
163. The System Operation Permit also includes an additional provision requiring BRA to submit updated water conservation and drought contingency plans in connection with future applications for reconsideration or amendment of its WMP.

Return Flows

164. Return flows, once returned to a state watercourse, are unappropriated flows available for appropriation.
165. The System Operation Permit should authorize: (1) the appropriation of current return flows discharged by others (Texas Water Code §§ 11.046(c) and 11.121) once they are discharged into a watercourse; and (2) a bed and banks authorization in the case of return flows originating from BRA's own water supplies or discharged from BRA wastewater treatment plants (Texas Water Code § 11.042(b) and (c)). Because BRA's application seeks to authorize the indirect reuse of BRA's own return flows as a new appropriative right (under Texas Water Code 11.121), and because the ALJs determined that BRA has demonstrated the amounts are available for appropriation, BRA's indirect reuse of its own return flows can be authorized in the SysOps Permit as a bed and banks conveyance and as a new appropriative right—with the full quantity (47,322 acre-feet) being subject to the SysOps Permit's priority date. This is consistent with state law, prior Commission practice, and the Commission's directives in the Interim Order; therefore, it is reasonable.
- 165A. BRA established through the evidentiary record that BRA's own return flows, of which diversion and use would be authorized under Permit No. 5851, total 47,332 acre-feet, and that the return flows of others, that BRA seeks to appropriate under Permit No. 5851, total 50,076 acre-feet.

166. Through the WMP, BRA will account for the total discharges of return flows and adjust its water availability computation if total discharges decrease by 5% or more. BRA should also be required to revise the WMP, subject to approval by the Executive Director, to account for return flows authorized under Texas Water Code § 11.042(b) and (c) in accordance with WMP Technical Appendix H-2, and to account for return flows authorized under Texas Water Code §§ 11.046(c) and 11.121 in accordance with WMP Technical Appendix H-1.
167. Permit No. 5851 has a special condition that states that BRA's storage, diversion, and use of the portion of the appropriation based on others' surface water-based return flows is interrupted by direct reuse and is terminated by indirect reuse upon issuance of a bed and banks authorization to the discharging entity.
168. Another special condition in the permit expressly makes BRA's storage, diversion, and use of others' groundwater-based return flows interrupted by direct reuse by the discharger, and terminated upon issuance of a bed and banks authorization to the discharger.
169. As a result of an agreement with the Cities of Bryan and College Station, a provision addressing groundwater-based return flows, without any service area limitation, is included in Permit No. 5851, which will allow for future indirect reuse by dischargers of such water.
170. Accounting for individual discharges and diversions of return flows is not necessary for the protection of senior water rights.
- 170A. Permit No. 5851 should have a "Whereas" recital paragraph that identifies: 1) the TPDES Permit Nos. for the discharging facilities whose discharges make up the 47,322 acre-feet of BRA's own return flows; and 2) the TPDES Permit Nos. for the discharging facilities whose discharges make up the 50,076 acre-feet of the return flows of others.

Bed and Banks Authorization

171. Permit No. 5851 authorizes the use of the bed and banks of the Brazos River and its tributaries subject to identification of specific losses and various special conditions. BRA, through its WMP accounting procedures, will estimate daily deliveries of water that considers losses and travel time.
172. The water to be transferred in the bed and banks of the Brazos River and its tributaries originates from the Colorado and Brazos basins and will have water quality consistent with the natural water quality of the Brazos River. There should not be any effect on water quality in the Brazos River Basin as a result of the bed and banks authorization.

173. Included among the waters that BRA will be authorized by Permit No. 5851 to transport via the bed and banks is 47,322 acre-feet of BRA's own return flows, pursuant to Texas Water Code § 11.042(b) and (c).

Interbasin Transfer

174. BRA requests authorization for exempt interbasin transfers of water to any county or municipality that is partially in the Brazos River Basin for use in that part of the county or municipality within the Guadalupe, Lavaca, Trinity, Red, Colorado, or San Jacinto river basins, and for use in San Jacinto-Brazos Coastal Basin and the Brazos-Colorado Coastal Basin.
175. BRA has demonstrated that its Application No. 5851, as amended to include the WMP, complies with all requirements for exempt interbasin transfer authorization.

Allens Creek Reservoir and Term Permit Authorization

176. Allens Creek Reservoir (Water Use Permit No. 2925) is a yet-to-be-constructed off-channel reservoir that may be filled with diversions from the Brazos River. The Allens Creek Reservoir permit limits annual diversions from the Brazos River to 202,000 af/yr. Diversions from the Brazos River to Allens Creek Reservoir in excess of 202,000 af/yr are authorized by BRA's Certificate No. 12-5166.
177. For the period before the construction of Allens Creek Reservoir, BRA is seeking a term permit to use up to 202,000 af/yr of water for a period of 30 years or until the ports are closed on the dam impounding Allens Creek Reservoir, whichever is earlier. The Allens Creek Reservoir permit is not yet perfected and the use of the water under the term permit will not jeopardize the financial commitments to develop the reservoir and will not prevent BRA or the City of Houston from beneficially using the Allens Creek Reservoir during the term permit authorization.
178. Until construction of the Allens Creek Reservoir is completed, it is reasonable and consistent with Commission practice to authorize the use of the water appropriated under the Allens Creek Reservoir permit on a term basis.
179. BRA's Application No. 5851 requests that all of its system reservoirs, including the Allens Creek Reservoir, be allowed to store additional water at the System Operation Permit priority date if storage capacity and unappropriated water are available.
180. BRA has entered into an agreement with the City of Houston that allows BRA to use Houston's share of the storage capacity in the Allens Creek Reservoir for System Operation Permit water.
181. BRA obtained an amendment to its Excess Flows Permit (Certificate No. 12-5166) to include the diversion points for the proposed Allens Creek Reservoir. The amendment to the Excess Flows Permit allows BRA to divert water from the Brazos River into the

reservoir thereby increasing the supply of water that could be made available from the Allens Creek Reservoir.

182. The inclusion of Allens Creek Reservoir in the System Operation Permit after the reservoir is constructed and the recognition of existing authority to divert from the Brazos River to Allens Creek Reservoir in excess of 202,000 af/yr are reasonable.

Texas Coastal Management Program

183. BRA's operation under Permit No. 5851, as approved by this order, should not have significant adverse impacts on coastal natural resources and is consistent with the goals and policies of the Texas Coastal Management Program.

Permit Conditions/Revisions

184. Water Use Permit No. 5851 should be issued in the form attached with the following changes:

- a. The bullet point on page three of the Permit which begins "An appropriation of return flows," should be revised to read as follows:

An appropriation of 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. The appropriation of return flows would be subject to interruption or termination by direct reuse or ~~termination by indirect reuse within the discharging entity's city limits, extraterritorial jurisdiction, or contiguous water certificate of convenience and necessity boundary;~~

- b. The "TYPE" of authorization at the top of the first page should be amended as follows:

TYPE §§ 11.121, 11.042, 11.046, 11.085, & 11.1381

- c. An unnumbered, bulleted paragraph on page 3 should be amended as follows:

A term permit, pursuant to Texas Water Code § 11.1381, for a term of thirty (30) years from the issued date of this permit, or until the ports are closed on the dam impounding Allens Creek Reservoir, whichever is earlier, to allow the Applicant to use the water appropriated under Water Use Permit No. 2925, as amended, until construction of the Allens Creek Reservoir. The Applicant requested a term authorization to impound, divert, and use not to exceed ~~202,650~~ 202,000 acre-feet of water per year at the Gulf of Mexico; and

- d. The existing Paragraph 1.A should be deleted and replaced with the following:

Permittee is authorized to divert and use, for domestic, municipal, agricultural, industrial, mining and recreation use, water in the applicable amount shown below, as further described, defined, and limited by the Water Management Plan (WMP), within its service area, subject to special conditions:

- (1) Not to exceed 333,736 acre-feet per year at all times prior to: (1) an expansion of the Comanche Peak Nuclear Power Plant (CPNPP) in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; and (2) the point when the ports are closed on the dam impounding Allens Creek Reservoir. Of the total amount, 50,076 acre-feet constitutes the return flows of others pursuant to Texas Water Code §§ 11.046(c) and 11.121. This 50,076 acre-feet is subject to Special Conditions in Permit Paragraph 5.A.
- (2) Not to exceed 297,293 acre-feet per year at all times when: (1) CPNPP has been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; but (2) the ports on the dam impounding Allens Creek Reservoir have not yet been closed. Of the total amount, 50,076 acre-feet constitutes the return flows of others pursuant to Texas Water Code §§ 11.046(c) and 11.121. This 50,076 acre-feet is subject to Special Conditions in Permit Paragraph 5.A.
- (3) Not to exceed 469,623 acre-feet per year at all times when: (1) CPNPP has not yet been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; but (2) the ports have been closed on the dam impounding Allens Creek Reservoir. Of the total amount, 50,076 acre-feet constitutes the return flows of others pursuant to Texas Water Code §§ 11.046(c) and 11.121. This 50,076 acre-feet is subject to Special Conditions in Permit Paragraph 5.A.
- (4) Not to exceed 434,703 acre-feet per year at all times after: (1) CPNPP has been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; and (2) the ports on the dam impounding Allens Creek Reservoir have been closed. Of the total amount, 50,076 acre-feet constitutes the return flows of others pursuant to Texas Water Code §§ 11.046(c) and 11.121. This 50,076 acre-feet is subject to Special Conditions in Permit Paragraph 5.A.

e. Paragraph 1.B should be revised as follows:

- (1) Permittee is authorized, pursuant to Texas Water Code § 11.042(a), to use the bed and banks of the Brazos River below Possum Kingdom Lake, the Brazos River tributaries and Permittee's authorized reservoirs for the conveyance, storage, and subsequent diversion of the water authorized as a

new appropriation herein, subject to identification of specific losses and to special conditions.

- (2) Permittee is authorized, pursuant to Texas Water Code § 11.042(b) and (c), to use the bed and banks of the Brazos River below Possum Kingdom Lake, the Brazos River tributaries and Permittee's authorized reservoirs for the conveyance, storage, and subsequent diversion of 47,322 acre-feet of Permittee's own return flows and as a new appropriation herein, subject to identification of specific losses and to special conditions.

- f. Paragraph 1.E should be amended as follows:

Pursuant to Texas Water Code § 11.1381, for a term of thirty (30) years from the issued date of this permit, or until the ports are closed on the dam impounding Allens Creek Reservoir, whichever is earlier, Permittee may use the water appropriated under Water Use Permit No. 2925, as amended. As part of the amount appropriated in Paragraph 1.A., during the term of this authorization Permittee may divert and use not to exceed ~~202,650~~ 202,000 acre-feet of water per year, subject to Special Conditions 5.C.1-~~57~~.

- g. The existing section 5.A should be revised as follows:

- (1) Permittee's authorization to divert and use return flows under this permit is limited to return flows that are authorized for discharge by Texas Pollutant Discharge Elimination System (TPDES) Permits in effect as of the issuance date of this permit, and as authorized by future modifications of this permit or the WMP.
- (2) ~~Permittee shall maintain a record of return flows as a part of its accounting plan required by Special Conditions 5.C and 5.D (return flow accounting plan). The return flow accounting plan must account, by source, for all return flows discharged. The return flow accounting plan shall include amounts discharged by outfall. Computation of the amount of additional water supply available due to return flows actually discharged is determined in the WMP, taking into account environmental flow conditions and demands of senior water rights. Permittee's use of additional water supply attributable to the presence of return flows is limited to the amount shown to be available, based upon amounts discharged as determined in the WMP. The return flow accounting plan shall be included as part of Permittee's accounting/delivery plan. Subject to approval by the Executive Director, Permittee shall revise the WMP Accounting Plan to account for return flows authorized under Texas Water Code § 11.042(b) and (c) in accordance with the Brazos River Authority Accounting Plan, Executive Director's Approach to Return Flows and to account for return flows authorized under Texas Water Code §§ 11.046(c)~~

and 11.121 in accordance with the Brazos River Authority Accounting Plan BRA Approach to Return Flows.

- (3) Permittee's storage, diversion and use of that portion of the appropriation based on return flows is dependent upon potentially interruptible return flows. Permittee may not subsequently assert that this water right was granted based on the permanent use or availability of such return flows. Permittee's storage, diversion and use of that portion of the appropriation based on surface water based return flows will be is interrupted by direct reuse ~~or will be terminated by indirect reuse 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 and is terminated by indirect reuse upon the issuance of a bed and banks authorization pursuant to Texas Water Code § 11.042(c) by the Commission to the discharging entity.~~
- (4) Permittee's storage, diversion and use of groundwater based return flows is ~~subject to interruption~~ interrupted by direct reuse ~~or indirect reuse and is terminated by indirect reuse~~ upon issuance of a bed and banks authorization pursuant to Texas Water Code § 11.042(b) by the Commission to the discharging entity.
- (5) Permittee shall, at a minimum, use the return flow (effluent discharges) volumes reported monthly to the Commission by wastewater dischargers that have permitted discharges of greater than or equal to one (1) million gallons per day, and by other wastewater dischargers as provided by the accounting plan, to verify the available return flows for the accounting plan.

h. Paragraph 5.C.3 should be amended as follows:

Permittee may 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. Permittee's use of water previously stored in Permittee's reservoirs or available for appropriation by Permittee's senior water rights shall be documented in the accounting/delivery plan. Use of this option shall not cause Permittee to be out of compliance with the accounting/delivery plan, or Special Condition 5.C.2, or prevent the achievement of environmental flow requirements that would have otherwise been achieved.

i. A new Special Condition 5.C.6 should be added to read as follows:

Permittee shall not divert or impound water pursuant to the authorizations in the permit if such diversions or impoundments would cause the flow at USGS Gage 081166550 (Brazos River near Rosharon) to fall below the lesser of 630 cfs, or Dow Chemical Company's projected daily pumping rate. This provision is not effective if: (a) Dow Chemical Company has not provided its projected daily pumping rate to Permittee; or (b) a watermaster having jurisdiction over the lower Brazos River has been appointed and continues to function.

- j. A new Special Condition 5.C.7 should be added to read as follows:

In recognition of current drought conditions, BRA shall perform a detailed evaluation of whether the recently-ended drought: (1) represents a drought worse than the drought of record of the 1950s in the Brazos River Basin; and (2) decreases the amount of water available for appropriation under this permit. BRA shall provide a report to the TCEQ documenting its findings within nine months after issuance of this permit. If the report concludes that the recently-ended drought decreases the amount of water available for appropriation under this permit, then the amount of that reduction shall be determined and the appropriation amounts specified in Paragraph 1.A. and 5.D.5 of this permit shall be correspondingly reduced.

- k. The existing Paragraph 5.D.5 should be deleted and replaced with the following:

- (a) Permittee's diversion and use under this permit and WMP shall be immediately reduced by 14% of the amounts authorized in Paragraph 1.A. USE due to sedimentation in Permittee's reservoirs, as follows:
- (1) not to exceed 287,013 acre-feet per year at all times prior to: (1) an expansion of the Comanche Peak Nuclear Power Plant (CPNPP) in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; and (2) the point when the ports are closed on the dam impounding Allens Creek Reservoir;
 - (2) Not to exceed 255,672 acre-feet per year at all times when: (1) CPNPP has been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; but (2) the ports on the dam impounding Allens Creek Reservoir have not yet been closed;
 - (3) Not to exceed 403,876 acre-feet per year at all times when: (1) CPNPP has not yet been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; but (2) the ports have been closed on the dam impounding Allens Creek Reservoir; and

- (4) Not to exceed 373,845 acre-feet per year at all times after: (1) CPNPP has been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; and (2) the ports on the dam impounding Allens Creek Reservoir have been closed.
 - (b) If Permittee, as a subsequent major amendment of the WMP, is able to demonstrate the availability of sufficient additional sources of supply to offset these reductions in storage capacity, the amount of water authorized for diversion and use may increase up to the appropriated amount in Use Paragraph 1.A.
- 185. BRA should be directed to revise its WMP, which was admitted as BRA Exhibit 113 and includes the WMP Technical Report, all appendices, and other attachments, and is approved and incorporated as a part of the permit, with the following changes:
 - a. A new paragraph should be added at the bottom of page 9 of the WMP to read as follows:

Subject to Special Condition 5.D.5.b, the maximum annual use for each reach is limited to 86% of the largest maximum annual diversion under the "SysOp" for that reach in Tables G.3.14 through G.3.25 of Appendix G-3 of the WMP Technical Report for the firm appropriation demand scenario that is applicable during the year in which water is diverted, or 1,460 acre-feet, whichever is greater.
 - b. A paragraph on page 41 of the WMP should be amended as follows:

The maximum allowable System Operation Permit diversion amount within a reach applies to the aggregate of all diversions in the reach. An allowable System Operation Permit diversion, whether upstream or downstream of the reach's applicable measurement point, will not reduce flow below the environmental flow standard at a point immediately below BRA's point of diversion and additionally will not exceed provisions set forth in Section IV.D.4.b below.
 - c. The last paragraph on page 5-7 and continuing on page 5-8 of the WMP Technical Report should be amended as follows:

[Initial portion of paragraph unchanged] The BRA approach version of the Accounting Plan includes reported monthly return flows for dischargers that have a permitted discharge greater than or equal to 1 million gallons per day (MGD). Within one month after this data is available from TCEQ for the prior calendar year, the total annual amount of return flows ~~These monthly amounts will be compared to the assumed amount used during the time period of this initial WMP. If actual return flows are substantially less than the amounts used in the modeling the assumptions used in the model will be adjusted and the model re-run to~~

examine the impacts on yield less than the amount used in modeling by 5% or greater, BRA will revise the models and submit results to TCEQ.

186. All other changes proposed by the parties to Permit No. 5851 and the WMP are unreasonable or unnecessary.

Transcript Costs

187. BRA paid the full cost of the transcript for the first hearing and does not now seek to have that cost allocated among the parties.
188. Reporting and transcription of the remanded second hearing on the merits was warranted because the hearing lasted eight days. The total cost of the transcript for the second hearing was \$11,052.50, which has been paid by BRA subject to allocation among the parties by the Commission.
189. Several parties did not participate in the second hearing: the Cities of Lubbock, Round Rock, Bryan, and College Station, Mike Bingham, William and Gladys Gavranovic, and Bradley B. Ware. The following parties had no or limited participation at the second hearing because of their status as non-aligned, interested parties: Chisholm Trail Ventures, L.P., City of Houston, George Bingham, Robert Starks, Frasier Clark, William D. and Mary L. Carroll, PKLA, and NRG. TPWD's participation was limited to certain issues.
190. Neither the Executive Director of the TCEQ nor the Office of Public Interest Counsel may be assessed transcription costs because they cannot appeal a TCEQ order.
191. BRA, Dow, NWF, LGC, and FBR fully and actively participated in the second hearing. These parties benefit equally with BRA from the availability of a hearing transcript, both in terms of preparation of written argument and exceptions, and possible appeal.
192. BRA, Dow, NWF, LGC, and FBR each had multiple attorneys participating in the hearing, and each had one or more retained expert witnesses.
193. BRA, Dow, LGC, and FBR, which retained multiple attorneys and expert witnesses to participate in the hearing, have sufficient resources to pay a share of the costs of the transcript.
194. NWF is a non-profit entity.
195. The second hearing was only necessary because BRA's Application as considered during the first hearing was deficient, and the Commission gave BRA an opportunity to extensively amend it and have it reconsidered in the second hearing.
196. BRA should pay the entire cost of the second-hearing transcript, \$11,052.50, and no portion of that cost should be allocated to any other party.

II. CONCLUSIONS OF LAW

1. The Commission has jurisdiction over permits to use state water and to issue Permit No. 5851 under Texas Water Code §§ 5.013, 11.042, 11.046, 11.121, 11.134, and 11.1381.
2. SOAH has jurisdiction over all matters relating to the conduct of a hearing in this proceeding, including the preparation of a PFD and findings of fact and conclusions of law, under Texas Government Code Ch. 2001 and 2003.
3. BRA published notice and the Commission mailed notice to navigation districts and water rights holders in the Brazos River Basin as required by Texas Water Code § 11.132 and 30 Texas Administrative Code Ch. 295.
4. BRA has complied with Texas Water Code § 11.124(a)(5)-(7), concerning facilities, and Texas Water Code § 11.125, concerning maps, to the extent they are applicable when no new facilities are proposed.
5. Notice of the application, the opportunity for a hearing, and the hearing was provided as required by Texas Water Code §§ 11.128 and 11.132, and Texas Government Code §§ 2001.051 and 2001.052.
6. The Commission has jurisdiction to consider the application without amendments for settlements and notice was not required to address the settlements that are not part of the current application.
7. BRA's choice to proceed with a new permit application rather than a permit amendment application does not conflict with the Commission's traditional interpretation of the laws it administers, deny any affected party a right to notice or hearing, or avoid the application of environmental flow requirements to BRA's existing water rights.
8. The Commission's jurisdiction and broad authority over the appropriation of state water allows it to grant Permit No. 5851 and require the submittal and approval of a WMP to be included as part of Permit No. 5851.
9. Application No. 5851 is administratively complete, includes all of the required information, was accompanied by all required fees, and was properly noticed, and therefore complies with Texas Water Code § 11.134(b)(1), and 30 Texas Administrative Code Ch. 295.
10. Application No. 5851 sufficiently identifies the total amount of water to be used in definitive terms in accordance with 30 Texas Administrative Code § 295.5.

11. Application No. 5851 sufficiently identifies the maximum diversion rate in accordance with 30 Texas Administrative Code § 295.6.
12. Application No. 5851 sufficiently identifies diversion points and reaches and complies with 30 Texas Administrative Code § 295.7.
13. New diversion points may be added in the future in accordance with 30 Texas Administrative Code § 297.102(b).
14. Application No. 5851 complies with the applicable procedural rules in Chapter 295 of Title 30 of the Texas Administrative Code.
15. Water is available for appropriation by Permit No. 5851 in the amounts indicated in this order, in accordance with the applicable Demand Level in effect at the time of diversions. Tex. Water Code § 11.134(b)(2).
16. Return flows, once discharged into a state watercourse, are subject to appropriation by others. Tex. Water Code §§ 11.046(c), 11.121. However, these appropriative rights in the return flows of others can be later reduced or terminated once the discharger directly reuses or obtains an indirect reuse bed and banks authorization under Texas Water Code § 11.042(b) or (c).
17. There is no conflict between Texas Water Code § 11.042 and § 11.046(c). Section 11.042(c) does not operate to reserve return flows for the discharger or water right holder. Therefore, current return flows discharged by third parties, subject to the limitations in Permit No. 5851, are appropriated to BRA, but are subject to curtailment by direct or indirect reuse by the discharger.
18. BRA has demonstrated that it sought authorization to use the bed and banks of the Brazos River and its tributaries to convey and divert its surface water-based and groundwater-based return flows pursuant to Texas Water Code § 11.042(b) and (c) and met all requirements under these provisions and applicable TCEQ rules for such bed and banks authorization.
19. The appropriation by BRA of groundwater-based and surface water-based return flows discharged by other persons or entities is a new appropriation subject to the environmental flow requirements for the Brazos River Basin in 30 Texas Administrative Code Chapter 298. The authorization for BRA's own return flows is also subject to these SB 3 environmental flow requirements under BRA's WMP.
20. BRA has demonstrated that the proposed appropriation is intended for a beneficial use. Tex. Water Code § 11.134(b)(3)(A).
21. Permit No. 5851 will not impair existing water rights or vested riparian water rights. Tex. Water Code § 11.134(b)(3)(B); 30 Tex. Admin. Code § 297.45.

22. Permit No. 5851 will not be detrimental to the public welfare. Tex. Water Code § 11.134(b)(3)(C).
23. Texas Water Code § 11.134(b)(3)(D) requires the TCEQ to consider applicable environmental flow standards under Texas Water Code § 11.1471. This provision is further clarified by Texas Water Code § 11.147(e-3). The environmental flow standards adopted by TCEQ in Chapter 298, Title 30 of the Texas Administrative Code are the standards that must be applied to any new water rights application.
24. A water right permit that complies with the environmental flow standards of Chapter 298, Title 30 of the Texas Administrative Code will maintain water quality and instream uses, including recreation and habitat for fish and aquatic wildlife, and provide necessary beneficial flows to bays and estuaries while considering all public interests and fully satisfying the requirements of Texas Water Code §§ 11.0235(b) and (c); 11.046(b); 11.134(b)(3)(D); 11.147(b), (d), (e), and (e-3); 11.150; and 11.152; and 30 Texas Administrative Code § 297.54(a).
25. Environmental flow restrictions may only be applied to a new appropriation of water or to the increase in the amount of water to be stored, taken, or diverted that is authorized by an amendment to an existing permit. Tex. Water Code § 11.147(e-1). Therefore, the environmental flow requirements in the System Operation Permit may not be applied to BRA's existing water rights.
26. The environmental flow conditions in Permit No. 5851 implement and are consistent with the environmental flow standards adopted for the Brazos River Basin. 30 Tex. Admin. Code Ch. 298, Subchapters A and G.
27. Permit No. 5851, as approved by this order, will maintain water quality and instream uses, including recreation and habitat for fish and aquatic wildlife, and provide necessary beneficial flows to bays and estuaries while considering all public interests and fully satisfying the requirements of Texas Water Code §§ 11.0235(b) and (c); 11.046(b); 11.134(b)(3)(D); 11.147(b), (d), (e), and (e-3); 11.150; 11.151; and 11.152; and 30 Texas Administrative Code §§ 297.54(a), 307.4(g)(1) and (2), and 307.10(1), and Chapter 298.
28. The environmental flow limits in Permit No. 5851, as approved by this order, are subject to adjustment by the Commission.
29. All of the regional planning areas within the Brazos River Basin have an approved regional water plan. Tex. Water Code § 11.134(c).
30. Application No. 5851 and Permit No. 5851 are consistent with the adopted State Water Plan, and applicable regional water plans. Tex. Water Code § 11.134(b)(3)(E).
31. BRA will use reasonable diligence to avoid waste and achieve water conservation. Tex. Water Code § 11.134(b)(4).

32. BRA has an approved water conservation plan and drought contingency plan, and conservation measures and alternatives were evaluated in considering Application No. 5851. Tex. Water Code § 11.1271(a), (c); 30 Tex. Admin. Code §§ 288.4, 288.5, 288.7, 288.20, 288.22, 297.50.
33. Application No. 5851's requests for a bed and banks authorization and an exempt interbasin transfer authorization comply with the TCEQ rules. Tex. Water Code §§ 11.042 and 11.085(v).
34. The term permit to use water appropriated under Water Use Permit No. 2925 (Allens Creek Reservoir) prior to reservoir construction complies with Texas Water Code § 11.1381.
35. The Commission has reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the Coastal Coordination Council and has determined that the action is consistent with the applicable CMP goals and policies. 30 Tex. Admin. Code Ch. 281.
36. BRA should be assessed the entire cost of the transcript of the First and Second Hearings in this case. 30 Tex. Admin. Code § 80.23.
37. BRA has demonstrated that Application No. 5851 satisfies each applicable statutory and regulatory requirement for appropriation of water.
38. The evidence admitted in this case shows that Application No. 5851 should be granted in part and Permit No. 5851 should be issued, as that permit is proposed by BRA Exhibit No. 132B and that permit and its WMP are amended as provided in this order. The changes BRA is ordered to make to conform the WMP to the Commission's order are clerical and do not affect the finality of the order.

III. EXPLANATION OF CHANGES

1. The Commission determined to adopt the ALJs' Proposed Order included with the Supplement to the Proposal for Decision on Remand with some specific changes.
2. The Commission determined to adopt the changes to Finding of Fact Nos. 60, 62, 67, 68, 88, Conclusion of Law Nos. 1 and 19, and Ordering Provision 1.j.; as proposed by the ALJs' reply letter in response to the ED's Exceptions; however, the Commission corrected the number in Finding of Fact No 67 to include a comma instead of a period, with that number being 516,955. The ED's proposed revision to Finding of Fact No. 60 was: "For Permit No. 5851, there are three sources of unappropriated water: unappropriated riverine flows; return flows of treated wastewater of others, and water available for appropriation from BRA's existing reservoirs. Another source of water is BRA's own return flows." The ED's proposed revision to Finding of Fact No. 62 was:

“Through the use of its storage, BRA can make BRA’s sources of water identified in FOF 60 into a reliable supply by using stream flows not being used by senior water rights when that water is available and providing water from storage when there are little or no stream flows available for use.” The ED’s proposed revision to Finding of Fact No. 67 was: “Demand Level C anticipates construction of the Allens Creek Reservoir without the CPNPP expansion. As modeled by the Applicant it produces a maximum possible use ~~of unappropriated water~~ of 516,955 af/yr.” The ED’s proposed revision to Finding of Fact No. 68 was: “Demand Level D anticipates both expansion of the CPNPP and construction of the Allens Creek Reservoir. As modeled by the Applicant it produces a maximum possible use ~~of unappropriated water~~ of 482,035 af/yr.” The ED’s proposed revision to Finding of Fact No. 88 was: “In order to properly account for the recent drought, the following condition should be included in Permit No. 5851: ‘In recognition of current drought conditions, BRA shall perform a detailed evaluation of whether the recently ended drought: (1) represents a drought worse than the drought of record of the 1950s in the Brazos River Basin; and (2) decreases the amount of water available for appropriation under this permit. BRA shall provide a report to the TCEQ documenting its findings within nine months after issuance of this permit. If the report concludes that the recently ended drought decreases the amount of water available for appropriation under this permit then the amount of that reduction shall be determined and the appropriation amounts specified in Paragraphs 1.A and 5.D.5 of this permit shall be correspondingly reduced.’” The ED’s proposed revision to Conclusion of Law No. 1 was: “The Commission has jurisdiction over permits to use state water and to issue Permit No. 5851 under Texas Water Code §§ 5.013, 11.042, 11.046, 11.121, 11.134, and 11.1381.” The ED’s proposed revision to Conclusion of Law No. 19 was: “The appropriation by BRA of groundwater-based and surface water-based return flows discharged by other persons or entities is a new appropriation subject to the environmental flow requirement for the Brazos River Basin in 30 Texas Administrative Code Chapter 298. The authorization for BRA’s own return flows is also subject to these SB 3 environmental flow requirements under BRA’s WMP.” The ED’s proposed revision in Ordering Provision 1.j. was that Special Condition 5.C.7 be revised as follows: the phrase “the amount of that reduction shall be determined and” should be inserted before the ending phrase: “the appropriation amounts specified in Paragraph 1.A. of this permit shall be correspondingly reduced.” The Commission determined to not adopt the proposed change to Finding of Fact No. 170; as proposed by the ALJs’ reply letter in response to the ED’s Exceptions.

3. The Commission determined to adopt the changes to Finding of Fact Nos. 27 and 32; as proposed by the ALJs’ reply letter in response to BRA’s Exceptions. BRA’s proposed revision to Finding of Fact No. 27 was: “Following extensive additional briefing by the parties on the two remanded issues, and pursuant to the schedule directed by the ALJs (Order Nos. 36 and 37) the ALJs issued a Supplement to the PFDR and a new Proposed Order on June 3, 2016.” BRA’s proposed revision to Finding of Fact No. 32 was: “The TCEQ recently amended the Applicant’s Excess Flows Permit (Certificate No. 12-5166) to include the diversion points for the proposed Allens Creek Reservoir.” The Commission also determined to adopt the ALJs’ proposed new Finding of Fact No. 165 language, as proposed by the ALJs’ reply letter in response to BRA’s Exceptions; however, the Commission designated the number of the finding as No. 165A and

determined not to renumber the remaining findings. The new Finding of Fact is: "165A. BRA established through the evidentiary record that BRA's own return flows, of which diversion and use would be authorized under Permit No. 5851, total 47,332 acre-feet, and that the return flows of others, that BRA seeks to appropriate under Permit No. 5851, total 50,076 acre-feet."

4. The Commission determined to adopt the changes to Finding of Fact No. 172; as proposed in the ED's Reply to Exceptions but not addressed by the ALJs' reply letter. The ED's proposed revision to Finding of Fact No. 172 was: "The water to be transferred in the bed and banks of the Brazos River and its tributaries originates from the Colorado and Brazos in the basins and will have water quality consistent with the natural water quality of the Brazos River. There should not be any effect on water quality in the Brazos River Basin as a result of the bed and banks authorization."
5. The Commission determined to modify Finding of Fact No. 75 to remove the word "improperly" and to modify Finding of Fact No. 76 to remove the word "incorrectly" and replace the word "correction" with "adjustment."
6. The Commission determined to add the following sentence to the ALJs' proposed Finding of Fact No. 165 as the second sentence in the finding: "Because BRA's application seeks to authorize the indirect reuse of BRA's own return flows as a new appropriative right (under Texas Water Code 11.121), and because the ALJs determined that BRA has demonstrated the amounts are available for appropriation, BRA's indirect reuse of its own return flows can be authorized in the SysOps Permit as a bed and banks conveyance and as a new appropriative right—with the full quantity (47,322 acre-feet) being subject to the SysOps Permit's priority date." The Commission also determined to include the following additional phrase in the proposed permit language in Paragraph 1.B.(2) in the SysOps Permit as identified in Finding of Fact No. 184.e.(2) and Ordering Provision No. 1.e.(2): (2) Permittee is authorized, pursuant to Texas Water Code § 11.042(b) and (c), to use the bed and banks of the Brazos River below Possum Kingdom Lake, the Brazos River tributaries and Permittee's authorized reservoirs for the conveyance, storage, and subsequent diversion of 47,322 acre-feet of Permittee's own return flows and as a new appropriation herein, subject to identification of specific losses and to special conditions." The Commission discussed that, at the PFDR stage, it agreed with the ALJs that a precursor for a bed and banks authorization under TWC § 11.042(c) for surface water based effluent return flows is also to have some form of underlying appropriative right to use the surface water before it becomes effluent. The Commission discussed that the Commission was not in a position at the time of the PFDR to identify what type or types of associated appropriative rights that would be needed to accompany BRA's bed and banks authorization without knowing additional information. The Commission discussed that BRA's unique manner of requesting a systems operations permit and seeking a new appropriation for its own return flows allows the Commission to authorize the indirect reuse quantities, diversion places, and uses for the bed and banks request under TWC § 11.042 in the SysOps Permit as a new appropriation.

7. The Commission determined that it would be appropriate to include the identification of the wastewater discharge permits that make up BRA's own return flows and the return flows of others in the recitals section of Water Use Permit No. 5851. The City of Tyler's Exceptions requested more specific identifications for the sources of the return flows. The Commission determined to add a new Finding of Fact No. 170A that states the following: "Permit No. 5851 should have a "Whereas" recital paragraph that identifies: 1) the TPDES Permit Nos. for the discharging facilities whose discharges make up the 47,322 acre-feet of BRA's own return flows; and 2) the TPDES Permit Nos. for the discharging facilities whose discharges make up the 50,076 acre-feet of the return flows of others." The Commission directed the ED to draft the recital paragraph with the discharging facilities' information.

NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY THAT:

1. Application No. 5851 is granted in part and Water Use Permit No. 5851 is issued to the Brazos River Authority in the form attached with the following changes:
 - a. The "TYPE" of authorization at the top of the first page is amended as follows:

Type §§ 11.121, 11.042, 11.046, 11.085, & 11.1381.
 - b. An unnumbered, bulleted paragraph on page 3 is amended as follows:

A term permit, pursuant to Texas Water Code § 11.1381, for a term of thirty (30) years from the issued date of this permit, or until the ports are closed on the dam impounding Allens Creek Reservoir, whichever is earlier, to allow Applicant to use the water appropriated under Water Use Permit No. 2925, as amended, until construction of the Allens Creek Reservoir. Applicant requested a term authorization to impound, divert, and use not to exceed ~~202,650~~ 202,000 acre-feet of water per year at the Gulf of Mexico; and
 - c. The bullet point on page three of Permit which begins "An appropriation of return flows," is revised as follows:

An appropriation of 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. The appropriation of return flows would be subject to interruption or termination by direct reuse ~~or termination by indirect reuse within the discharging entity's city limits, extraterritorial jurisdiction, or contiguous water certificate of convenience and necessity boundary;~~
 - d. The existing Paragraph 1.A is deleted and replaced with the following:

Permittee is authorized to divert and use, for domestic, municipal, agricultural, industrial, mining and recreation use, water in the applicable amount shown below, as further described, defined, and limited by the Water Management Plan (WMP), within its service area, subject to special conditions:

- (1) Not to exceed 333,736 acre-feet per year at all times prior to: (1) an expansion of the Comanche Peak Nuclear Power Plant (CPNPP) in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; and (2) the point when the ports are closed on the dam impounding Allens Creek Reservoir. Of the total amount, 50,076 acre-feet constitutes the return flows of others pursuant to Texas Water Code §§ 11.046(c) and 11.121. This 50,076 acre-feet is subject to Special Conditions in Permit Paragraph 5.A.
- (2) Not to exceed 297,293 acre-feet per year at all times when: (1) CPNPP has been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; but (2) the ports on the dam impounding Allens Creek Reservoir have not yet been closed. Of the total amount, 50,076 acre-feet constitutes the return flows of others pursuant to Texas Water Code §§ 11.046(c) and 11.121. This 50,076 acre-feet is subject to Special Conditions in Permit Paragraph 5.A.
- (3) Not to exceed 469,623 acre-feet per year at all times when: (1) CPNPP has not yet been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; but (2) the ports have been closed on the dam impounding Allens Creek Reservoir. Of the total amount, 50,076 acre-feet constitutes the return flows of others pursuant to Texas Water Code §§ 11.046(c) and 11.121. This 50,076 acre-feet is subject to Special Conditions in Permit Paragraph 5.A.
- (4) Not to exceed 434,703 acre-feet per year at all times after: (1) CPNPP has been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; and (2) the ports on the dam impounding Allens Creek Reservoir have been closed. Of the total amount, 50,076 acre-feet constitutes the return flows of others pursuant to Texas Water Code §§ 11.046(c) and 11.121. This 50,076 acre-feet is subject to Special Conditions in Permit Paragraph 5.A.

e. Paragraph 1.B is revised as follows:

- (1) Permittee is authorized, pursuant to Texas Water Code § 11.042(a), to use the bed and banks of the Brazos River below Possum Kingdom Lake, the Brazos River tributaries and Permittee's authorized reservoirs for the conveyance, storage, and subsequent diversion of the water authorized as a new appropriation herein, subject to identification of specific losses and to special conditions.

- (2) Permittee is authorized, pursuant to Texas Water Code § 11.042(b) and (c), to use the bed and banks of the Brazos River below Possum Kingdom Lake, the Brazos River tributaries and Permittee's authorized reservoirs for the conveyance, storage, and subsequent diversion of 47,322 acre-feet of Permittee's own return flows and as a new appropriation herein, subject to identification of specific losses and to special conditions.

f. Paragraph 1.E is amended as follows:

Pursuant to Texas Water Code § 11.1381, for a term of thirty (30) years from the issued date of this permit, or until the ports are closed on the dam impounding Allens Creek Reservoir, whichever is earlier, Permittee may use the water appropriated under Water Use Permit No. 2925, as amended. As part of the amount appropriated in Paragraph 1.A., during the term of this authorization Permittee may divert and use not to exceed ~~202,650~~ 202,000 acre-feet of water per year, subject to Special Conditions 5.C.1-57.

g. The existing section 5.A is revised as follows:

- (1) Permittee's authorization to divert and use return flows under this permit is limited to return flows that are authorized for discharge by Texas Pollutant Discharge Elimination System (TPDES) Permits in effect as of the issuance date of this permit, and as authorized by future modifications of this permit or the WMP.
- (2) ~~Permittee shall maintain a record of return flows as a part of its accounting plan required by Special Conditions 5.C and 5.D (return flow accounting plan). The return flow accounting plan must account, by source, for all return flows discharged. The return flow accounting plan shall include amounts discharged by outfall. Computation of the amount of additional water supply available due to return flows actually discharged is determined in the WMP, taking into account environmental flow conditions and demands of senior water rights. Permittee's use of additional water supply attributable to the presence of return flows is limited to the amount shown to be available, based upon amounts discharged as determined in the WMP. The return flow accounting plan shall be included as part of Permittee's accounting/delivery plan. Subject to approval by the Executive Director, Permittee shall revise the WMP Accounting Plan to account for return flows authorized under Texas Water Code § 11.042(b) and (c) in accordance with the Brazos River Authority Accounting Plan, Executive Director's Approach to Return Flows and to account for return flows authorized under Texas Water Code §§ 11.046(c) and 11.121 in accordance with the Brazos River Authority Accounting Plan BRA Approach to Return Flows.~~

- (3) Permittee's storage, diversion and use of that portion of the appropriation based on return flows is dependent upon potentially interruptible return flows. Permittee may not subsequently assert that this water right was granted based on the permanent use or availability of such return flows. Permittee's storage, diversion and use of that portion of the appropriation based on surface water based return flows will be is interrupted by direct reuse or will be terminated by indirect reuse 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 and is terminated by indirect reuse upon the issuance of a bed and banks authorization pursuant to Texas Water Code § 11.042(c) by the Commission to the discharging entity.
- (4) Permittee's storage, diversion and use of groundwater based return flows is ~~subject to interruption~~ interrupted by direct reuse ~~or indirect reuse~~ and is terminated by indirect reuse upon issuance of a bed and banks authorization pursuant to Texas Water Code § 11.042(b) by the Commission to the discharging entity.
- (5) Permittee shall, at a minimum, use the return flow (effluent discharges) volumes reported monthly to the Commission by wastewater dischargers that have permitted discharges of greater than or equal to one (1) million gallons per day, and by other wastewater dischargers as provided by the accounting plan, to verify the available return flows for the accounting plan.

h. Paragraph 5.C.3 is amended as follows:

Permittee may 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. Permittee's use of water previously stored in Permittee's reservoirs or available for appropriation by Permittee's senior water rights shall be documented in the accounting/delivery plan. Use of this option shall not cause Permittee to be out of compliance with the accounting/delivery plan, or Special Condition 5.C.2, or prevent the achievement of environmental flow requirements that would have otherwise been achieved.

i. A new Special Condition 5.C.6 is added to read as follows:

Permittee shall not divert or impound water pursuant to the authorizations in the permit if such diversions or impoundments would cause the flow at USGS Gage 081166550 (Brazos River near Rosharon) to fall below the lesser of 630 cfs, or Dow Chemical Company's projected daily pumping rate. This provision is not

effective if: (a) Dow Chemical Company has not provided its projected daily pumping rate to Permittee; or (b) a watermaster having jurisdiction over the lower Brazos River has been appointed and continues to function.

- j. A new Special Condition 5.C.7 is added to read as follows:

In recognition of current drought conditions, BRA shall perform a detailed evaluation of whether the recently-ended drought: (1) represents a drought worse than the drought of record of the 1950s in the Brazos River Basin; and (2) decreases the amount of water available for appropriation under this permit. BRA shall provide a report to the TCEQ documenting its findings within nine months after issuance of this permit. If the report concludes that the recently-ended drought decreases the amount of water available for appropriation under this permit, then the amount of that reduction shall be determined and the appropriation amounts specified in Paragraph 1.A. and 5.D.5. of this permit shall be correspondingly reduced.

- k. The existing Paragraph 5.D.5 is deleted and replaced with the following:

- (a) Permittee's diversion and use under this permit and WMP shall be immediately reduced by 14% of the amounts authorized in Paragraph 1.A. USE due to sedimentation in Permittee's reservoirs, as follows:
- (1) not to exceed 287,013 acre-feet per year at all times prior to: (1) an expansion of the Comanche Peak Nuclear Power Plant (CPNPP) in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; and (2) the point when the ports are closed on the dam impounding Allens Creek Reservoir;
 - (2) Not to exceed 255,672 acre-feet per year at all times when: (1) CPNPP has been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; but (2) the ports on the dam impounding Allens Creek Reservoir have not yet been closed;
 - (3) Not to exceed 403,876 acre-feet per year at all times when: (1) CPNPP has not yet been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; but (2) the ports have been closed on the dam impounding Allens Creek Reservoir; and
 - (4) Not to exceed 373,845 acre-feet per year at all times after: (1) CPNPP has been expanded in a manner that results in the plant needing at least 90,000 acre-feet per year of additional water; and (2) the ports on the dam impounding Allens Creek Reservoir have been closed.

- (b) If Permittee, as a subsequent major amendment of the WMP, is able to demonstrate the availability of sufficient additional sources of supply to offset these reductions in storage capacity, the amount of water authorized for diversion and use may increase up to the appropriated amount in Use Paragraph 1.A.
2. Brazos River Authority's WMP, which was admitted as BRA Exhibit 113 and includes the WMP Technical Report, all appendices, and other attachments, is approved and incorporated as a part of the permit, with the following changes:
- a. A new paragraph is added at the bottom of page 9 of the WMP to read as follows: Subject to Special Condition 5.D.5.b, the maximum annual use for each reach is limited to 86% of the largest maximum annual diversion under the "SysOp" for that reach in Tables G.3.14 through G.3.25 of Appendix G-3 of the WMP Technical Report for the firm appropriation demand scenario that is applicable during the year in which water is diverted, or 1,460 acre-feet, whichever is greater.
- b. A paragraph on page 41 of the WMP is amended as follows:
- The maximum allowable System Operation Permit diversion amount within a reach applies to the aggregate of all diversions in the reach. An allowable System Operation Permit diversion, whether upstream or downstream of the reach's applicable measurement point, will not reduce flow below the environmental flow standard at a point immediately below BRA's point of diversion and additionally will not exceed provisions set forth in Section IV.D.4.b below.
- c. The last paragraph on page 5-7 and continuing on page 5-8 of the WMP Technical Report is amended as follows:
- [Initial portion of paragraph unchanged] The BRA approach version of the Accounting Plan includes reported monthly return flows for dischargers that have a permitted discharge greater than or equal to 1 million gallons per day (MGD). Within one month after this data is available from TCEQ for the prior calendar year, the total annual amount of return flows ~~These monthly amounts will be compared to the assumed amount used during the time period of this initial WMP. If actual return flows are substantially less than the amounts used in the modeling the assumptions used in the model will be adjusted and the model re-run to examine the impacts on yield less than the amount used in modeling by 5% or greater, BRA will revise the models and submit results to TCEQ.~~
3. The Executive Director shall make changes in Permit No. 5851 and the WMP to conform to this order.

4. The Brazos River Authority shall make changes to the WMP to conform with this order and submit them to the Executive Director for approval as to form.
5. Brazos River Authority shall pay the full cost of the transcript for the hearing.
6. The effective date of this Order is the date the Order is final.
7. All other motions, requests for entry of specific Findings of Fact or Conclusions of Law, and any other requests for general or specific relief not expressly granted herein, are hereby denied for want of merit.
8. If any provision, sentence, clause, or phrase of this Order is for any reason held to be invalid, the invalidity of any portion shall not affect the validity of the remaining portions of the Order.
9. The Chief Clerk of the Texas Commission on Environmental Quality shall forward a copy of this Order to the parties.

ISSUED:

September 16, 2016

**TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY**

Bryan W. Shaw

**Bryan W. Shaw, Ph.D., P.E., Chairman
For the Commission**