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March 10, 2010

Office of the Chief Clerk
LaDonna Castanuea
PO Box 13087
Austin, Texas 78711-3087

Re: TCEQ Docket No. 2008-0181-WR; SOAH Docket
No. 582-08-1698; *Application of Bradley B. Ware to
Amend Water Use Permit No. 5594*

Subject: *Applicant's Replies to Exceptions to the Proposal
for Decision of the Administrative Law Judge*

Dear Ms. Castanuela,

Enclosed please find the Applicant's Replies to Exceptions to the Proposal for Decision of the Administrative Law Judge, for Bradley B. Ware in the above styled and docketed matter.

Should you have any questions with regards to the enclosed, please do not hesitate to contact me at the above referenced number.

Sincerely,


GWENDOLYN HILL WEBB
ATTORNEY FOR APPLICANT BRADLEY B. WARE

Enclosure

SOAH DOCKET NO. 582-08-1698
TCEQDOCKET NO. 2008-0181-WR

APPLICATION OF BRADLEY B. WARE § BEFORE THE STATE OFFICE
 §
TO AMEND WATER USE PERMIT § OF
 §
PERMIT No. 5594 § ADMINISTRATIVE HEARINGS

**APPLICANT’S REPLIES TO EXECUTIVE DIRECTOR’S EXCEPTIONS TO THE
ADMINISTRATIVE LAW JUDGE’S PROPOSAL FOR DECISION**

TO THE HONORABLE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY:

NOW COMES, Bradley B. Ware, Applicant in the above styled and docketed water rights permit application, by and through his attorneys of record, and files this, Applicant’s Response to Protestants’ Exceptions (“Exceptions”) to the Administrative Law Judge’s Proposal for Decision (“PFD”) and in support thereof, would respectfully show the Texas Commission on Environmental Quality (“TCEQ” or “Commission”) as follows:

I. INTRODUCTION

The Executive Director’s role in failing to provide a complete record of the State water available for appropriation in the Brazos River Basin generally and in this case in particular is highlighted by the tepid Exceptions of the Executive Director, which offer scant correction to the outdated version of the water availability data supporting the Executive Director’s recommendation to preclude Applicant’s continued diversion and use of Lampasas River streamflows at his diversion point to sustain Ware Farm.

The Executive Director has two versions of the Brazos River Basin water availability model used to determine water availability in the Brazos River Basin. The Executive Director believes that the power to manage the Brazos River Basin Water Availability Model on behalf of the TCEQ carries with it the right to adjust the model for the benefit of some and to the detriment

of others. Sometimes the Executive Director includes all the State water available for appropriation in the Water Availability Model, and sometimes he reserves quantities of State water for use by a favored few. The Executive Director has included return flows as part of the water available for appropriation, which is correct under Texas Water Code, §11.046(c)¹ for some chosen water rights applicants and contractors. (Ex. 50) Under the Executive Director's system, the Executive Director gets to determine which water available for appropriation an applicant will have access to, and uses the actual streamflows, including return flows, to grant applications and accept long term contracts for filing for some applicants, notably Brazos River Authority and municipalities. The same Executive Director uses the outdated Brazos River Basin Water Availability Model, without the actual present day streamflows to recommend denial of other applications, such as the pending application by Bradley B. Ware.

When the truth is as obvious as the Lampasas River flowing by your diversion point, you tend not to believe any bureaucrats who try to convince you that what you are seeing and diverting is not there. So, Applicant challenged the Executive Director's determination of water availability, based on the reality of the streamflows. Ware showed that the U. S. G. S. gage near Kempner, Texas provided evidence that the flows at his diversion point were adequate for him to continue diverting. Ware also hired an expert, a former TCEQ water rights adjudication staffer and Brazos River Basin water rights holder, who explained that the flows were evidence of return flows, increased runoff from development, and other factors which increased water available since the end of the Executive Director's old Brazos River Basin Water Availability Model was developed. But, the Executive Director said that the only thing that could be used to determine water availability was the old Brazos River Basin Water Availability Model, without the updates as to actual streamflow conditions. In fact, the Executive Director testified that not

¹ **Sec. 11.046. RETURN SURPLUS WATER. (c)** Except as specifically provided otherwise in the water right, water appropriated under a permit, certified filing, or certificate of adjudication may, prior to its release into a watercourse or stream, be beneficially used and reused by the holder of a permit, certified filing, or certificate of adjudication for the purposes and locations of use provided in the permit, certified filing, or certificate of adjudication. **Once water has been diverted under a permit, certified filing, or certificate of adjudication and then returned to a watercourse or stream, however, it is considered surplus water and therefore subject to reservation for instream uses or beneficial inflows or appropriation by others unless expressly provided otherwise in the permit, certified filing, or certificate of adjudication.**

only did the TCEQ have to rely on the old data, but the Executive Director also testified that using the new data, or any other evidence of increased streamflows would make no difference. According to the Executive Director's testimony for Bradley B. Ware, no matter what is actually happening in the Lampasas River at Ware Farm, there is just no water available for appropriation in the Brazos River Basin. Applicant just has to stop diverting water, and can never have the right to divert and use State water for Ware Farm again, while others gain new and extensive water rights to benefit other persons, places and uses.

The Executive Director's Exceptions hint at, but do not ultimately confront, the difficulty associated with taking too seriously their stated faith in the outdated Brazos River Basin WAM. In attempting to support the Executive Director, the Administrative Law Judge has gone beyond what is reasonable, or what could be reasonably sustained as a fair, reasonable and lawful consideration of a Brazos River Basin water right.

III. AT LEAST TWO DIFFERENT VERSIONS OF STATE WATER AVAILABLE IN THE BRAZOS RIVER BASIN

At the hearing, Applicant introduced evidence of the two different Brazos River Basin water availability studies, the old version which had been used to evaluate Applicant's application and the updated version including additional streamflows in a new Current Conditions data set, which was never applied to the pending Application to amend Permit to Appropriate State Water No. 5594. But, the neither the Administrative Law Judge nor any of the government lawyers accept the inconsistency and the inescapable conclusion that it is impossible to find on the one hand that there is significant water available for appropriation on one hand, but that that same water—yet to be appropriated—does not exist and is not available for appropriation on the other hand. Fortunately, the Commission is charged with knowing what both its right hand and left hand are doing. The TCEQ is charged not only with general jurisdiction over "water and water rights including the issuance of water rights permits," (*See*, Tex. Water Code, § 5.013. General Jurisdiction Of Commission), but the Commission is also charged with knowledge of all the watercourses and the water resources in Texas, and not just an *ad hoc* consideration of the Executive Director's actions in a particular case.

Tex. Water Code, § 5.119. COMMISSION TO BE KNOWLEDGEABLE. The commission shall be knowledgeable of the watercourses and natural resources of the state and of the needs of the state concerning the use, storage and conservation of water and the use and conservation of other natural resources and of the need to maintain the quality of the environment in the state.

The Executive Director is currently supporting new appropriations in the Basin. He is recommending an additional 421,000 acre-feet of new appropriative authority; for the Cities of Bryan and College Station, with newly issues (February 5, 2010) rights to appropriate State water in the combined total of 27,163 acre-feet per year, and for other cities up and down the Brazos River Basin who have all obtained rights to appropriate water by permit and contract with *later priority dates* than Applicant. The difference is that the Executive Director is using the new and updated Brazos River Basin Water Availability Model, even for applicants who are just coming in, unlike Bradley Ware with his 1997 priority date. Not only is the Executive Director willing to use the updated model to show that water is actually available for appropriation for these applicants and contractors, but the Executive Director is also willing to support the issuance of permits based on other information, such as stream gages (*See*, attached water availability analysis for Permit No. 5912 for the City of Bryan and Permit No. 5913 for the City of College Station)² This information has become known to the Applicant since the hearing but is officially known to the TCEQ. Therefore, the Commission is not prevented from noting the inconsistent and arbitrary positions taken by its Executive Director in pending matters regarding the same Brazos River Basin. The Executive Director has no legal right for his conflicting positions to be unknown to the Commission when the agency decides this case.

IV. THE EXECUTIVE DIRECTOR'S SPECIFIC EXCEPTIONS DO NOT CURE THE WATER AVAILABILITY ERRORS

In light of the facts of Brazos River Basin water availability, which the Executive Director has supported for other applicants, the larger question in this case becomes: Can the Executive Director be allowed to use and misuse water availability data for the benefit of some and to the detriment of others? Can we continue to allow the Executive Director to have different standards of water availability for different applicants? And, most importantly for

Bradley B. Ware, can the Executive Director be allowed to implement a policy which sounds the death knell for small water users? The Texas Water Code has the answers to all these questions. Taken as a whole, Texas Water Code, Chapter 11 spells out a system of prior appropriation on a first in time, first in right basis, not based on unwritten rules or Executive Director's choice. The Texas Water Code speaks of granting an application if State water is available for appropriation, not if the Executive Director finds the applicant worthy.

A. Executive Director's Exception to Finding of Fact No. 34

The Executive Director's exception to Finding of Fact No. 34, and Finding of Fact No. 34 itself is meaningless in the context of the current case. Water rights applications in the Brazos River Basin are no longer properly reviewed by the Executive Director with respect to the historic "period of record." Instead, water rights should be evaluated using the updated information on current streamflow conditions, including the updated Current Conditions data set referenced in Applicant's Exhibit No. 50, and the accurate gage flow information referenced by the Applicant's expert and the Commission in Permits Nos. 5912 and 5913. There is no regulatory or legal justification for setting aside State water for some applicants by requiring that their applications be evaluated using a period of record known to be outdated and incomplete.

B. Executive Director's Exception to Finding of Fact No. 38

Applicant agrees with the Executive Director that the Commission uses information regarding streamflows from the period of record, and on current conditions, by relying on gauge information and data from other sources. The Executive Director has supplied the Commission with information in this case and other Brazos River Basin cases relying on updated information of the type supplied by Brazos River Authority and Applicant's expert, Samuel W. Jones, P.E. in this case.

C. Executive Director's Exceptions to Findings of Fact Nos. 38 and 39

Again, these findings of fact regarding the development of the Brazos River Basin Water Availability Model are meaningless in the context of the present case. These findings serve only to highlight the Executive Director's misplaced reliance—in this case—in the outdated Brazos River Basin Water Availability Model, whose sole present use by the Executive Director is to deny the presence of return flows in the modern era and to support the his conclusion, known to be erroneous, that there is “little to no” State water available for appropriation.

D. Executive Director's Exception to Finding of Fact No. 43

The Executive Director's exception to this finding does not cure the most important defect in this finding: that is a finding based on speculation rather than fact. The assumed role of the Executive Director in this case is to provide factual information important to the issues of this case based on verifiable facts, not speculation. Yet the Executive Director repeatedly testified that his pre-ordained conclusions *would have been* the same *if* he had used appropriate factual information. For example, the Executive Director did not use a 1997 priority in modeling Mr. Ware's application (Tr. p. 118, line 22—p. 119, line 4) even though Mr. Ware's permit is *listed in the model* with a 1997 priority date (Tr. p. 202, line 22—p. 203, line 7). However, despite his testimony about the importance of priority dates in the modeling of permit applications (Tr. p. 116 lines 14-23), the wrong priority date did not stop the Executive Director from speculating that a 1997 priority date would not have changed the results. (Tr. p. 190, line 22—p. 191, line 13). Similarly, the Executive Director speculated that the additional 74,387 acre feet he found in the basin would not have changed his conclusion about available water for Mr. Ware *if* he had applied it. Speculative evidence is, by definition, unreliable and should not be the basis of a fact finding.

The Executive Director's Exception to Finding of Fact No. 43 is problematic on its face, involving as it does no reference to the evidence of record to support it. More importantly, based on the recent updates of the Brazos River Basin Water Availability Model and the Executive Director's recent actions in granting water rights in the Brazos River Basin, the substance of the exception seems to be an outright misrepresentation of the truth. Apparently, the Executive

Director does find that the updated information changes the determination of water availability, stating in July, 2007 and July, 2008 Water Availability Reviews of pending Brazos River Basin water rights applications:

The results of the analysis indicate the potential for impacts on water rights in the Brazos River Basin. However, based on the accuracy of the U.S.G.S. stream gages [1], staff is of the opinion that these results indicate no practical effect on basin water rights.

[1]United States Department of the Interior. 2004. *Water Resources Data Texas Water Year 2004. Volume 3. San Jacinto River Basin, Brazos River Basin, San Bernard River Basin, and Intervening Coastal Basins. Water-Data Report TX-04—3. Accuracy of Field Data and Computed Results.* Page 10-11. Prepared by United States Geological Survey in cooperation with the State of Texas and other agencies.

Apparently, at the Executive Director's whim, updated information on current streamflow conditions either does or does not make any difference at all in the consideration of water rights applications.

E. Executive Director's Exception to Finding of Fact No. 45

Neither the Executive Director, nor the Administrative Law Judge has any right to suggest findings which attempt to prejudge the ultimate questions in the pending water rights application of Brazos River Authority. Stating, in this case, that the full amount of BRA's request, over 4 times the amount of streamflows included in the updated version of the Model attempts to bootstrap evidence which has not been subject to notice, hearing or cross examination by the protestants in that case. Applicant simply wishes to have access to the same updated Brazos River Basin WAM, currently used by the Executive Director, without supporting any conclusion in a pending contested case.

The Executive Director's observations of the use of return flows only compounds the inconsistent evidence of record regarding the use of unappropriated State water in the form of return flows and the scope of the Model's application on Mr. Ware's application. According to the Executive Director, the Brazos WAM covers an area beginning at the northwestern most part

of Texas, extending to the Gulf of Mexico. Moreover, the Executive Director models every proposed water right in the *entire area* of the Brazos River Basin, using priority dates of the 85 existing downstream water rights holders as an important factor in determining water availability (Tr. P. 84, Line 16 – P. 85; P. 95, Line 6 –Line 10). Because, under §11.046, return flows are considered surplus unappropriated water, subject to appropriation, the location of the additional unappropriated water would benefit the *entire basin*, so said the Executive Director during the hearing:

Q. Additional unappropriated water would benefit the entire basin, wouldn't it?

A. Yes.

Q. And so it doesn't matter whether it's above Mr. Ware, below Mr. Ware, above Stillhouse Hollow Lake, below it? It would benefit everyone, wouldn't it?

A. It would benefit everyone downstream of it and potentially, that –yes, I can—I can say that it would benefit everyone in the basin, yes.”

(Testimony of Jeffrey C. Thomas, P.E., P.G., speaking about the updated version of the Brazos River Basin WAM, including 74,387 acre-feet per year in return flows. (Transcript, p. 150, lines 10—19)

Post hearing, the Executive Director asserts that the 74,387 acre feet of additional water is only available at the “lowest point in the basin in conjunction with the various conditions coincident in BRA’s System Operation Permit.” As stated above, and in Applicant’s exceptions, this statement is incorrect.

This is the key element in the inconsistent approach. If additional water is found to exist in the basin, then its location is irrelevant to how the water is input into the model. Applicant asserted that Mr. Ware’s diversion point above Stillhouse Hollow Lake separated him from downstream water rights holders below Stillhouse Hollow Lake. This was the reason evidence was offered showing the negligible impact of his 150 acre feet relative to even the evaporative losses of Stillhouse Hollow Lake. Therefore, under the Applicant’s argument, the relevant scope of inquiry to judge the adverse impact of Mr. Ware’s diversions, would be to examine his impact

on his neighbors immediately downstream of him above Stillhouse Hollow Lake. The record shows such impact would be virtually non-existent. However, the Executive Director has countered that the Model analyzes Mr. Ware's impact throughout the basin and below Stillhouse Hollow Lake. Thus, lays the inequity. Additional water used to update the Model supposedly has no impact on Mr. Ware's application because of his location, but Mr. Ware's location affects *all areas* of the basin, because of the same Brazos River Basin Water Availability Model.

During the hearing, the Executive testified that he could not think of any reason why Mr. Ware would not be entitled to any of the 74,387 acre feet of additional water that the Executive Director has discovered. (Tr. p. 151, line 23—p. 152, line 6) The Executive Director even acknowledged that his finding of the additional water was coincident with an acknowledgement that party other than the applicant BRA would be entitled to some of the return flows. (Tr. p. 153, lines 13-21) This admission during the hearing is inconsistent with the approach the Administrative Law Judge and the Executive Director now take.

IV. DUTY OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY TO END EXECUTIVE DIRECTOR'S IMPROPER PROCEDURES IN WATER RIGHTS PERMITTING

Not all water rights are issued by the Commissioners, and much of the machinations with the model and the water availability data are done by the Executive Director behind the scenes with no contested case hearing and no Commission agenda. Bradley Ware tried it that way; and there were no protestants to the issuance of the permit except the Executive Director. Consequently, it is Bradley Ware's small request for 150 acre-feet of water per year that shines the light on the inequity and the lack of integrity in the granting of Brazos River Basin water rights. Bradley B. Ware is asking the Texas Commission on Environmental Quality to do the right thing, to grant Bradley B. Ware the right to continue using the water available for appropriation under his 1997 priority date in perpetuity, the same perpetual right the Executive Director has granted others for orders of magnitude more in water use. Fair is fair, and unlike the Executive Director's water availability analyses, there is only one water law in Texas, and

that law is set forth in the Texas Water Code; it is not governed by the unwritten rules of the Executive Director.

Unlike the Administrative Law Judge, the Commission actually does have to take into account the inconsistencies associated with recommending:

- (1) That the updated Brazos River Basin Water Availability Model, with its current conditions updated with actual streamflow conditions does not apply to Applicant:
- (2) That the updated Brazos River Basin Water Availability Model does apply to the proposed new appropriation by Brazos River Authority of the entire volume of 74,387 acre-feet of return flows; and
- (3) That there is also sufficient water available in the Brazos River Basin to support the issuance of new (February 5, 2010) water rights permits for the Cities of Bryan and College Station, with newly issued rights to appropriate State water in the combined total of 27,163 acre-feet per year, and other cities up and down the Brazos River Basin, who have all obtained rights to appropriate water by permit and contract with later priority dates than Applicant.

V. SUMMARY AND CONCLUSIONS

The Executive Director's Exceptions are cynical as to Bradley Ware when placed alongside recent statements by the Executive Director regarding Brazos River Basin water availability. The Executive Director continues to insist that the Commission use outdated Brazos River Basin water availability information which the Executive Director himself is not using in its most recent determinations of water availability in the Brazos River Basin, which are attached to these Replies to Exceptions. The supposed clarifications regarding the outdated information which the Executive Director's Exceptions call for are meaningless in light of the Executive Director's wholesale disregard of this old version of the Brazos River Basin Water Availability Model in current water rights permitting. The juxtaposition of the issuance of perpetual water

rights without the Executive Director's contest in Dockets Nos. 2006-1832-WR and 2006-1831-WR, versus the Executive Directors insistence that water flowing by the Ware Farm diversion point is not water available for appropriation begs the question:

Is the Executive misspeaking to the cities and river authorities regarding Brazos River Basin water availability; or is he just misspeaking to Bradley B. Ware?

The evidence in this case, and in every other case where the Executive Director has granted a water right in the Brazos River Basin demonstrate that the Executive Director is consciously and purposefully misrepresenting water availability for Bradley B. Ware and Ware Farm only. The Commission can correct the Executive Director's factual and legal noncompliance, and restore the integrity to the water rights permitting process.

WHEREFORE, CONSIDERING THE FOREGOING, APPLICANT BRADLEY B. WARE respectfully requests the Texas Commission on Environmental Quality to GRANT APPLICANTS EXCEPTIONS AND REPLIES TO EXECUTIONS and allow all applicants for water rights appropriations access to the full amount of water available for appropriation on a first in time, first in right basis, and direct the Executive Director not to reserve water available for appropriation for some later applicants, to the detriment of citizens coming before the Commission for a fair, reasonable and nondiscriminatory determination of water available, using the most reliable information available to the Commission.

APPLICANT RESPECTFULLY REQUESTS that the Commission not take away Applicant's right to continue to divert and use State water on his small farm which has been operational for over a century, and is deserving of a continued place of water use in Texas' economic future.

Respectfully Submitted,

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Stephen P. Webb
State Bar No. 21033800

A handwritten signature in black ink, reading "Stephen P. Webb", written over a horizontal line. The signature is highly stylized and cursive.

Gwendolyn Hill Webb
State Bar No. 2 21026300

A handwritten signature in black ink, reading "Gwendolyn Hill Webb", written over a horizontal line. The signature is highly stylized and cursive.

ATTORNEYS FOR APPLICANT, BRADLEY B. WARE

CERTIFICATE OF SERVICE

I hereby certify that I have this 10th day of March, 2010, served copies of the foregoing Applicant's Response to Protestants' Exceptions to the Administrative Law Judge's Decision upon the parties to this proceeding, whose full and complete names and addresses appear below, by electronic mail, by certified mail, facsimile, hand delivery, and/or regular U.S. mail.

State Office of Administrative Hearings

Honorable Paul Keeper
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Gwendolyn Hill Webb

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Steve Ramos, Application Manager
Water Rights Permitting Team

Through: JB Lann Bookout, Team Leader
Surface Water Availability & Interstate Compacts Team

From: Kathy Alexander, Hydrologist
Surface Water Availability & Interstate Compacts Team

Subject: City of College Station
WRPERM 5913
CN 600732598
Carters Creek and Lick Creek, Brazos River Basin
Bosque County

July 21, 2008



WATER AVAILABILITY REVIEW

Application Summary

The City of College Station (City) seeks authorization to divert and reuse up to 12,881 acre-feet of historic and future groundwater-based return flows discharged from two treatment plants located on Carters Creek and Lick Creek for municipal, industrial, and agricultural use in whole or part of Brazos, Grimes, Washington, Waller, Austin, Fort Bend, and Brazoria Counties at a maximum rate of 17.29 cfs (7,758 gpm). The amount of effluent requested for reuse is up to 10,641 acre-feet from the Burton Creek outfall and up to 2,240 acre-feet from the Lick Creek outfall.

The City also seeks authorization to use the bed and banks of the Brazos River and tributaries to convey these historic and future groundwater-based return flows from the two treatment plants to a diversion point located approximately 300 river miles downstream on the Brazos River. The City estimates conveyance losses from the two treatment plants to the diversion point will be approximately 9 % of the discharged volume with an average estimated travel time of 8.24 days.

No Injury Analysis

The Commission's water availability model (WAM) for the Brazos River Basin protects existing water rights based on the prior appropriation doctrine. The period of record for the Brazos WAM is 1940 to 1997. Resource Protection staff did not recommend an instream flow restriction.

Because the applicant is requesting authorization to reuse groundwater based return flows, a water availability analysis is not necessary. However, the request must be analyzed to assess any potential impact of the conveyance and diversion of these return flows on existing water rights.

Staff first modified the Full Authorization version of the Brazos WAM dataset (all basin rights utilize their maximum authorized amount), to include an estimate of the City's historic discharges. To estimate the historic discharges, staff used discharge data submitted by the City for the period 2001-2005. Staff used the minimum

monthly value for each month of the five year period to create constant inflow records. Staff then ran a simulation and calculated the volume reliabilities of all basin water rights. Volume reliability is defined as the percentage of the total target demand for each water right that is actually supplied. Next, Staff performed a simulation using the modified version of the WAM dataset described above and included the diversion of the discharged return flows, assuming that those diversions had the most senior priority date in the basin. Staff then compared results for the two simulations.

The results indicate that when 100% (less losses) of the modeled historic discharge of 6,438 acre-feet was diverted, 221 of the approximately 1,300 water rights in the basin showed a decrease in volume reliability. The 221 rights were located throughout the basin. Thirty of the 210 rights were authorized for municipal use. The average decrease in volume reliability was 0.15% with a maximum decrease of 1.16%. Staff conducted additional simulations to determine the effects of varying levels of diversions on the volume reliability of basin water rights. The results indicate that when 50% (3,219 acre-feet less losses) of the modeled historic discharge was diverted, 183 water rights showed a decrease in volume reliability with twenty-six of those rights authorized for municipal use. The average decrease in volume reliability was 0.13% with a maximum decrease of 0.87%. When 30% (1,931 acre-feet less losses) of the modeled historic discharge was diverted, 80 water rights showed a decrease in volume reliability with fourteen of those rights authorized for municipal use. The average decrease in volume reliability was 0.07% with a maximum decrease of 0.38%. When 5% (330 acre-feet less losses) of the modeled historic discharge was diverted, 11 water rights showed a decrease in volume reliability with four of those rights authorized for municipal use. The average decrease in volume reliability was 0.03% with a maximum decrease of 0.08%.

Staff notes that no municipal water rights that were 100% firm in the original scenario were reduced below 100% in any of the simulations. Staff reviewed the applicant's estimate of losses and found them adequate.

Conclusion

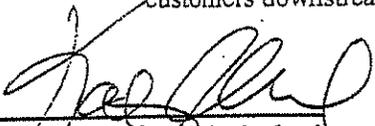
The results of the analysis indicate that the volume reliabilities of some rights were negatively affected as a result of this application, although the effects are minimal. Based on the accuracy of U.S.G.S. stream gages¹, these results indicate no practical effect on basin water rights. Requiring the City to maintain an accounting plan will mitigate any possible impacts on existing basin water rights.

Staff can recommend granting the diversion of up to 12,881 acre-feet per year of the City's historic and future groundwater based return flows so long as the permit includes the following special conditions:

1. Prior to diversion of any return flows authorized by this permit, Permittee shall apply for and be granted an amendment to this permit to add provisions providing that the Permittee have an approved daily accounting plan and requiring the maintenance of that daily accounting plan. The plan must include, at a minimum, the amount of discharged return flows from each source, the discharge point and rate, travel time, losses, and the diversion amount and rate. The plan must be provided in electronic format.
2. Permittee shall only divert the actual daily amount groundwater-based return flows discharged from the two treatment plants less the estimated losses after accounting for travel times between the discharge and diversion points.

¹ United States Department of the Interior. 2004. *Water Resources Data Texas Water Year 2004. Volume 3. San Jacinto River Basin, Brazos River Basin, San Bernard River Basin, and Intervening Coastal Basins. Water-Data Report TX-04-3. Accuracy of Field Data and Computed Results. Page 10-11.* Prepared by United States Geological Survey in cooperation with the State of Texas and other agencies.

3. Prior to diversion of groundwater-based return flows in excess of the amount currently authorized by TPDES Permit Nos. 10024006 and 10024003, described in Paragraph 2 DISCHARGE, Permittee shall apply for and be granted the right to reuse those return flows. Permittee shall amend the accounting plan to include future discharges of groundwater-based return flows prior to diverting said return flows.
4. The diversions authorized by this permit are dependant upon potentially interruptible return flows or discharges and are conditioned on the availability of those discharges. The right to divert the discharged groundwater-based return flows is subject to revocation if discharges are not available in quantities and qualities sufficient to satisfy the permit. Should the discharges be unavailable for diversion, Permittee shall immediately cease diversion under this permit and either apply to amend the permit with an alternate source, or voluntarily forfeit the permit. If Permittee does not amend or forfeit the permit, the TCEQ may begin proceedings to cancel this permit.
5. Permittee is not authorized to divert water released by the Brazos River Authority out of storage in reservoirs upstream of Permittee's diversion point for use by the Authority or its customers downstream of Permittee's diversion point.


Kathy Alexander, Hydrologist

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Iliana Delgado, Application Manager
Water Rights Permitting Team

Through: *JL* Lann Bookout, Team Leader
Surface Water Availability & Interstate Compacts Team

From: Ivan Ortiz, Hydrologist
Surface Water Availability & Interstate Compacts Team

Subject: City of Bryan
WRPERM5912
CN600373310
Still Creek and Unnamed tributaries of Burton Creek and
Turkey Creek, Brazos River Basin
Brazos County

July 10, 2007



WATER AVAILABILITY REVIEW

Application Summary

City of Bryan seeks authorization to divert and reuse up to 14,282.1 acre-feet of historic and future groundwater-based return flows per year from three treatment plants located on Still Creek and unnamed tributaries of Burton Creek and Turkey Creek for municipal, industrial, and agricultural use in whole or part of Brazos, Grimes, Washington, Waller, Austin, Fort Bend, and Brazoria Counties at a maximum rate of 17.95 cfs (8,057 gpm). The amount of effluent requested for reuse is up to 4,481 acre-feet from the Still Creek outfall, up to 8,961 acre-feet from the Burton Creek outfall, and up to 840.1 acre-feet from the Turkey Creek outfall.

The applicant also seeks authorization to use the bed and banks to convey these historic and future groundwater-based return flows from the three treatment plants to a diversion point located approximately 300 river miles downstream on the Brazos River. The applicant estimates conveyance losses from the three treatment plants to the requested diversion point to be approximately 9 % of the discharge volume and an average estimated travel time of 8.24 days.

No Injury Analysis

The Commission's water availability model (WAM) for the Brazos River Basin protects existing water rights based on the prior appropriation doctrine. The period of record for the Brazos WAM is 1940 to 1997. Resource Protection staff did not recommend an instream flow restriction.

As the applicant is requesting the reuse of groundwater based return flows, a water availability analysis is not necessary. However, the request must be analyzed to assess any potential impact on existing permits or certificates of adjudication when discharging, conveying, and diverting the applicant's historically discharged return flows.

Staff performed a simulation using the Full Authorization simulation, in which all basin rights utilize their maximum authorized amount, and calculated the volume reliabilities of all basin water rights. Staff then performed a simulation which included the applicant's estimated historic discharges and modeled diversion of the discharged effluent as the most senior water right in the basin. Staff then compared results for the two simulations.

The results indicate that when 100% of the historically discharged amount of 6,389.89 acre-feet was diverted, 56 of the approximately 1,300 water rights in the basin showed a decrease in volume reliability. Volume reliability is defined as actual amount of water diverted during the simulation period expressed as a percentage of the total permitted amount. The 56 rights were located throughout the basin. Twelve of the 56 rights were authorized for municipal use. Additional simulations were conducted to determine the effects of varying levels of diversions on basin water rights. The results indicate that when 50% (3,194.94 acre-feet) of the historically discharged amount was diverted, 39 water rights showed a decrease in volume reliability with 9 of those rights authorized for municipal use. When 30% (1,916.97 acre-feet) of the historically discharged amount was diverted, 6 water rights showed a decrease in volume reliability with 1 of those rights authorized for municipal use. When 5% (319.49 acre-feet) of the historically discharged amount was diverted, 3 water rights showed a decrease in volume reliability with none of those rights authorized for municipal use. (Table 1. lists the water rights that showed a decrease in volume reliability, the type of right, and other information about the right.)

Staff notes that no municipal water rights that were 100% firm in the original scenario were reduced below 100% by diversions of the requested return flows in any of the simulations. Staff reviewed water rights in the Brazos River Basin and determined that Certificate of Adjudication 12-5269, authorizing diversion of 935 acre-foot per year, is based on historical discharges of the applicant's return flows from the Still Creek outfall. Staff reviewed the applicant's estimate of losses and found them adequate.

Conclusion

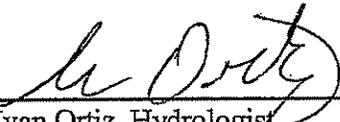
The results of the analysis indicate the potential for impacts on water rights in the Brazos River Basin. However, based on the accuracy of U.S.G.S. stream gages¹, staff is of the opinion that these

¹ United States Department of the Interior. 2004. *Water Resources Data Texas Water Year 2004. Volume 3. San Jacinto River Basin, Brazos River Basin, San Bernard River Basin, and Intervening Coastal Basins. Water-Data Report TX-04-3. Accuracy of Field Data and Computed Results. Page 10-11.* Prepared by United States Geological Survey in cooperation with the State of Texas and other agencies.

results indicate no practical effect on basin water rights. Staff is of the opinion that requiring the applicant to maintain an accounting plan will mitigate any possible impacts on existing basin water rights located downstream of the applicant's diversion point. Staff recommends that the estimate of losses be accepted.

Staff can recommend granting the diversion of up to 14,282.1 acre-feet per year of the applicant's historic and future groundwater based return flows as requested so long as the permit includes the following special conditions:

1. Prior to diversion of any water authorized by this permit, permittee shall provide to and have approved by the Executive Director a daily accounting plan that includes, at a minimum, the discharge rate and point for the groundwater based return flows, the amount discharged, travel time, losses, and diversion rate and amount. The plan must be provided in electronic format.
2. Permittee may only divert the actual daily amount of effluent discharged from the three treatment plants less the estimated losses after accounting for travel times between the discharge and diversion points.
3. Permittee may only divert the actual annual amount of effluent discharged from the Still Creek outfall less up to 935 acre-feet as authorized in Certificate of Adjudication 12-5269 when Certificate of Adjudication 12-5269 is being used.
4. Permittee shall maintain daily electronic records (in spreadsheet or database format) of the accounting plan and shall submit the plan to the Executive Director upon request.
5. The recommended maximum diversion amounts only apply to the specific diversion point authorized by this permit. Should the diversion point change, or additional points be added, the recommended diversion amounts will be adjusted accordingly.


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