

TCEQ Interoffice Memorandum

TO: Office of the Chief Clerk
Texas Commission on Environmental Quality

THRU:  Iliana Delgado, Team Leader
Water Rights Permitting Team

FROM: Sarah Henderson, Project Manager
Water Rights Permitting Team

DATE: July 15, 2016

SUBJECT: TCEQ Docket No. 2016-0162-WR
New Braunfels Utilities
WRPERM 12469, CN600522957, RN105761977
Application No. 12469 for a Water Use Permit
Texas Water Code §§ 11.121, 11.042, 11.085, Requiring Mailed and
Published Notice
Guadalupe River, Guadalupe River Basin
Guadalupe County

The Executive Director received an application from New Braunfels Utilities seeking a Water Use Permit pursuant to Texas Water Code §§ 11.121, 11.042, and 11.085 and Texas Commission on Environmental Quality Rules Title 30 Texas Administrative Code §§ 295.1, *et seq.*

The application was received on June 9, 2009. The application was declared administratively complete and filed with the Office of the Chief Clerk on November 20, 2009. Notice of the application was mailed on July 2, 2015 to the water right holders in the Guadalupe River Basin and subsequently published. Three requests for a contested case hearing were received.

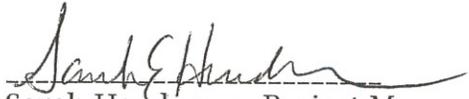
Because this application was declared administratively complete after September 1, 1999, the rules in Chapter 55, Subchapter G, Section 55.250 - 55.256 apply. The Chief Clerk shall mail notice to the applicant, executive director, public interest counsel, and timely hearing requestors not later than 35 days prior to the agenda setting. Applicants, the public interest counsel, and the executive director shall file a response no later than 23 days before agenda, and the hearing requestors shall reply no later than nine days before agenda.

The application is now technically complete and the staff has recommended that the application be granted based on the analysis in the technical review memos.

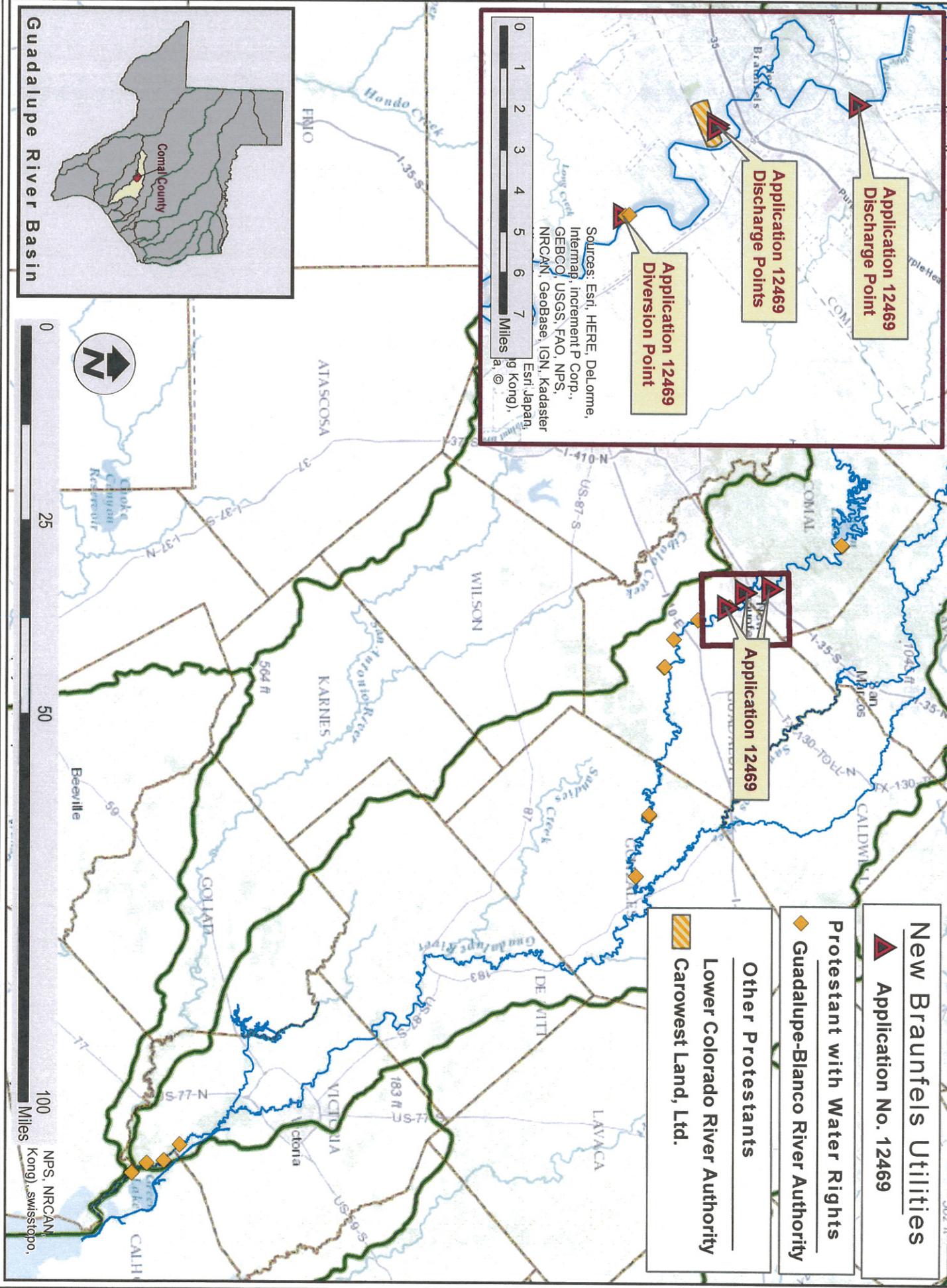
Below is the caption for this application:

Consideration of the application by New Braunfels Utilities for Water Use Permit No. 12469, seeking authorization: 1) to divert and use its historic and future surface water based and groundwater based return flows originating from its three wastewater treatment plants located on two unnamed tributaries of the Guadalupe River and the

Guadalupe River, Guadalupe River Basin for subsequent municipal, industrial, and agricultural purposes in Comal, DeWitt, Gonzales, Guadalupe, and Victoria Counties; 2) to use the bed and banks of the two unnamed tributaries of the Guadalupe River, Lake Dunlap, and the Guadalupe River to convey the return flows for subsequent diversion from Lake Dunlap on the Guadalupe River; and 3) for an exempt interbasin transfer of the authorized water to that portion of Guadalupe County within the San Antonio River Basin for municipal, industrial and agricultural purposes. The Commission will consider all timely filed hearing requests and related responses and replies. (Sarah Henderson, Dinniah Tadema)

A handwritten signature in black ink, appearing to read "Sarah Henderson", written over a horizontal line.

Sarah Henderson, Project Manager
Water Rights Permitting Team



Application 12469
Discharge Point

Application 12469
Discharge Points

Application 12469
Diversion Point

Application 12469

New Braunfels Utilities
Application No. 12469

Protestant with Water Rights

Guadalupe-Blanco River Authority

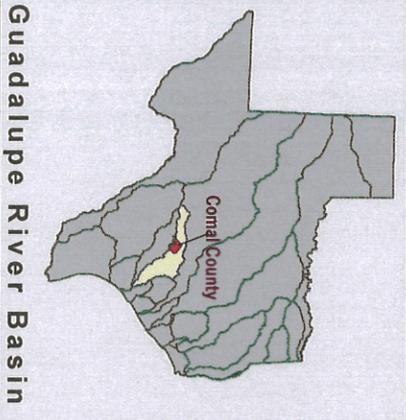
Other Protestants

Lower Colorado River Authority

Carowest Land, Ltd.

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geobase, IGN, Kadaster, Esri, Japan, (ing Kong), a, ©

0 1 2 3 4 5 6 7 Miles



Guadalupe River Basin

0 25 Miles

100 Miles
NPS, NRCAN, (ing Kong), swisstopo,

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF A WATER RIGHTS APPLICATION

APPLICATION NO. 12469

New Braunfels Utilities (NBU) has applied for a water use permit to authorize the diversion and use of its historic and future surface water based and groundwater based return flows and to authorize the use of the bed and banks of two unnamed tributaries of the Guadalupe River, Lake Dunlap, and the Guadalupe River to convey the return flows for subsequent municipal, industrial, and agricultural purposes within the Guadalupe River Basin in Comal, DeWitt, Gonzales, Guadalupe, and Victoria Counties and in that portion of Guadalupe County within the San Antonio River Basin. More information on the application and how to participate in the permitting process is given below.

APPLICATION. New Braunfels Utilities, Applicant, P.O. Box 310289, New Braunfels, Texas 78131-0289, seeks a water use permit pursuant to Texas Water Code §§11.121, 11.042, 11.085 and Texas Commission on Environmental Quality Rules 30 Texas Administrative Code (TAC) §295.1, *et seq.* Notice is being published and mailed to the water right holders of record in the Guadalupe River Basin pursuant to 30 TAC §295.151.

The Applicant seeks to authorize the diversion and use of its historic and future surface water based and groundwater based return flows, originating from its three wastewater treatment plants located on two unnamed tributaries of the Guadalupe River and the Guadalupe River, Guadalupe River Basin for subsequent municipal, industrial, and agricultural purposes in Comal, DeWitt, Gonzales, Guadalupe and Victoria Counties.

The Applicant also seeks to authorize the use of the bed and banks of the two unnamed tributaries of the Guadalupe River, Lake Dunlap, and the Guadalupe River to convey the return flows for subsequent diversion from Lake Dunlap on the Guadalupe River.

The Guadalupe-Blanco River Authority owns Certificate of Adjudication No. 18-5488 authorizing Lake Dunlap and has provided consent to this application.

The Applicant further seeks to authorize an exempt interbasin transfer for the authorized water to that portion of Guadalupe County within the San Antonio River Basin for municipal, industrial, and agricultural purposes.

The Applicant estimates the discharged return flows are currently 65% surface water and 35% groundwater, although such percentages may change in the future.

The Applicant indicates there are no channel losses between the discharge and diversion points.

The return flows, totaling up to 9,408 acre-feet of water per year, are discharged at a combined rate of 41.55 cfs (18,646 mgd) at the following three points in Comal County:

1. South Kuehler Wastewater Treatment Plant discharge point located on an unnamed tributary of the Guadalupe River, Guadalupe River Basin, approximately 1.5 miles southeast of the City of New Braunfels, bearing N 53° W, 2,558 feet from the southeast corner of the Thompson J. Original Survey No. 091, Abstract No. 608, also being Latitude 29.687222° N, Longitude 98.097500° W in Comal County at a maximum discharge rate of 19.5 cfs (8,750 gpm).
2. Gruene Wastewater Treatment Plant discharge point located on the Guadalupe River, Guadalupe River Basin, approximately 2.3 miles north of the City of New Braunfels, bearing S 23° E, 3,077 feet from the northeast corner of the Veramendi J. Original Survey No. 091, Abstract No. 2, also being Latitude 29.737777° N, Longitude 98.105833° W in Comal County at a maximum discharge rate of 4.25 cfs (1,910 gpm).
3. North Kuehler Wastewater Treatment Plant discharge point located on an unnamed tributary of the Guadalupe River, Guadalupe River Basin, approximately 1.5 miles southeast of the City of New Braunfels, bearing N 58° W, 2,847 feet from the southeast corner of the Thompson J. Original Survey No. 091, Abstract No. 608, also being Latitude 29.687222° N, Longitude 98.098611° W in Comal County at a maximum discharge rate of 17.8 cfs (7,986 gpm).

The proposed diversion point will be located at any point along the perimeter of Lake Dunlap, approximately nine miles northwest of Seguin and 4.5 miles southeast of New Braunfels, bearing S 36° E, 13,141 feet from the northwest corner of the A.M. Esnaurizar Original Survey No. 187, Abstract No. 20, also being Latitude 29.653833° N and Longitude 98.066333° W in Guadalupe County within ZIP code 78130.

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if granted, would only authorize the use of the groundwater based return flows and would contain special conditions including, but not limited to, streamflow restrictions and maintenance of an accounting plan. The application and Executive Director's draft permit are available for viewing and copying at the Office of the Chief Clerk, 12100 Park 35 Circle, Building F., Austin, TX 78753.

The application and partial fees were received on June 9, 2009. Additional information and fees were received on October 16, October 27, and October 29, and December 16, 2009. The application was declared administratively complete and filed with the Office of the Chief Clerk on November 20, 2009.

PUBLIC COMMENT / PUBLIC MEETING. Written public comments and requests for a public meeting should be submitted to the Office of Chief Clerk, at the address provided in the information section below, within 30 days of the date of newspaper publication of the notice. A public meeting is intended for the taking of public comment, and is not a contested case hearing. A public meeting will be held if the Executive Director determines that there is a significant degree of public interest in the application.

CONTESTED CASE HEARING. The TCEQ may grant a contested case hearing on this application if a written hearing request is filed within 30 days from the date of newspaper publication of this notice. The Executive Director may approve the application unless a written request for a contested case hearing is filed within 30 days after newspaper publication of this notice.

To request a contested case hearing, you must submit the following: (1) your name (or for a group or association, an official representative), mailing address, daytime phone number, and fax number, if any; (2) applicant's name and permit number; (3) the statement "[I/we] request a contested case hearing;" (4) a brief and specific description of how you would be affected by the application in a way not common to the general public; and (5) the location and distance of your property relative to the proposed activity. You may also submit proposed conditions for the requested permit which would satisfy your concerns. Requests for a contested case hearing must be submitted in writing to the Office of the Chief Clerk at the address provided in the information section below.

If a hearing request is filed, the Executive Director will not issue the permit and will forward the application and hearing request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

INFORMATION. Written hearing requests, public comments, or requests for a public meeting should be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at <http://www.tceq.texas.gov/about/comments.html> by entering WRPERM 12469 in the search field. For information concerning the hearing process, please contact the Public Interest Counsel, MC 103, at the same address. For additional information, individual members of the general public may contact the Public Education Program at 1-800-687-4040. General information regarding the TCEQ can be found at our web site at www.tceq.texas.gov. Si desea información en Español, puede llamar al 1-800-687-4040 o por el internet al <http://www.tceq.texas.gov>.

Issued: July 2, 2015

WATER USE PERMIT

PERMIT NO. 12469

TYPE §§11.121, 11.042, 11.085

Permittee: New Braunfels Utilities

Address: P.O. Box 310289
New Braunfels, TX 78131

Filed: November 20, 2009

Granted:

Purpose: Municipal, Industrial, Agricultural

Counties: Comal, DeWitt, Gonzales,
Guadalupe, and Victoria

Watercourse: Unnamed tributaries of the
Guadalupe River and the Guadalupe
River

Watershed: Guadalupe and San
Antonio River Basins

WHEREAS, New Braunfels Utilities (Applicant) seeks to authorize the diversion and use of its historic and future surface water based and groundwater based return flows originating from its three wastewater treatment plants located on two unnamed tributaries of the Guadalupe River and the Guadalupe River, Guadalupe River Basin for subsequent municipal, industrial, and agricultural purposes in Comal, DeWitt, Gonzales, Guadalupe, and Victoria Counties; and

WHEREAS, the Applicant also seeks to authorize the use of the bed and banks of the two unnamed tributaries of the Guadalupe River, Lake Dunlap, and the Guadalupe River to convey the return flows for subsequent diversion from Lake Dunlap on the Guadalupe River; and

WHEREAS, the Guadalupe-Blanco River Authority owns Certificate of Adjudication No. 18-5488 authorizing Lake Dunlap and has provided consent to this application; and

WHEREAS, the Applicant further seeks to authorize an exempt interbasin transfer for the authorized water to that portion of Guadalupe County within the San Antonio River Basin for municipal, industrial, and agricultural purposes; and

WHEREAS, the Applicant estimates the discharged return flows are 65% surface water and 35% groundwater, although such percentages may change in the future; and

WHEREAS, the Applicant indicates there are no channel losses between the discharge and diversion points; and

WHEREAS, the return flows, totaling up to 9,408 acre-feet of water per year, are discharged at a combined rate of 41.55 cfs (18,646 gpm) at the following three points in Comal County:

1. South Kuehler Wastewater Treatment Plant discharge point located on an unnamed tributary of the Guadalupe River, Guadalupe River Basin, approximately 1.5 miles southeast of the City of New Braunfels, bearing N 53° W, 2,558 feet from the southeast corner of the Thompson J. Original Survey No. 091, Abstract No. 608, also being Latitude 29.687222° N, Longitude 98.097500° W at a maximum discharge rate of 19.5 cfs (8,750 gpm); and
2. Gruene Wastewater Treatment Plant discharge point located on the Guadalupe River, Guadalupe River Basin, approximately 2.3 miles north of the City of New Braunfels, bearing S 23° E, 3,077 feet from the northeast corner of the Veramendi J. Original Survey No. 091, Abstract No. 2, also being Latitude 29.737777° N, Longitude 98.105833° W at a maximum discharge rate of 4.25 cfs (1,910 gpm); and
3. North Kuehler Wastewater Treatment Plant discharge point located on an unnamed tributary of the Guadalupe River, Guadalupe River Basin, approximately 1.5 miles southeast of the City of New Braunfels, bearing N 58° W, 2,847 feet from the southeast corner of the Thompson J. Original Survey No. 091, Abstract No. 608, also being Latitude 29.687222° N, Longitude 98.098000° W at a maximum discharge rate of 17.8 cfs (7,986 gpm); and

WHEREAS, the proposed diversion point will be located at any point along the perimeter of Lake Dunlap, approximately nine miles northwest of Seguin and 4.5 miles southeast of New Braunfels, bearing S 36° E, 13,141 feet from the northwest corner of the A.M. Esnaurizar Original Survey No. 187, Abstract No. 20, also being Latitude 29.653833° N and Longitude 98.066333° W in Guadalupe County; and

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

WHEREAS, this permit, if granted, is subject to the requirements and orders of the South Texas Watermaster; and

WHEREAS, the Executive Director finds that it cannot support granting an authorization to divert and use that portion of the Applicant's historically discharged return flows that originate from surface water; and

WHEREAS, the Executive Director finds that it can support granting an authorization to divert and use that portion of the Applicant's discharged return flows that originate from groundwater, not to exceed 9,408 acre-feet of water per year; and

WHEREAS, the Executive Director recommends that special conditions be included in the permit; and

WHEREAS, ~~no requests for a contested case~~ hearing were received for this application;
and

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

NOW, THEREFORE, Water Use Permit No. 12469 is issued to New Braunfels Utilities subject to the following terms and conditions:

1. USE

- A. Permittee is authorized to divert and use not to exceed 9,408 acre-feet of its groundwater based return flows per year and any future groundwater based return flows, for municipal, industrial, and agricultural purposes in Comal, DeWitt, Gonzales, Guadalupe, and Victoria Counties in the Guadalupe River Basin.
- B. Permittee is authorized to use the bed and banks of two unnamed tributaries of the Guadalupe River, Lake Dunlap, and the Guadalupe River to convey not to exceed 9,408 acre-feet of its groundwater based return flows per year, and any future groundwater based return flows originating from its wastewater treatment plants in the Guadalupe River Basin.
- C. Permittee is further authorized an exempt interbasin transfer of the authorized water to that portion of Guadalupe County within the San Antonio River Basin for municipal, industrial, and agricultural purposes.

2. DISCHARGE

The return flows will be discharged, at a combined rate of 41.55 cfs (18,646 gpm), at the following three locations in Comal County:

- A. South Kuehler Wastewater Treatment Plant discharge point located on an unnamed tributary of the Guadalupe River, Guadalupe River Basin, approximately 1.5 miles southeast of the City of New Braunfels, bearing N 53° W, 2,558 feet from the southeast corner of the Thompson J. Original Survey No. 091, Abstract No. 608, also being Latitude 29.687222° N, Longitude 98.097500° W at a discharge rate of 19.5 cfs (8,750 gpm).
- B. Gruene Wastewater Treatment Plant discharge point located on the Guadalupe River, Guadalupe River Basin, approximately 2.3 miles north of the City of New Braunfels, bearing S 23° E, 3,077 feet from the northeast corner of the Veramendi J. Original Survey No. 091, Abstract No. 2, also being Latitude 29.737777° N, Longitude 98.105833° W at a discharge rate of 4.25 cfs (1,910 gpm).

C. North Kuehler Wastewater Treatment Plant discharge point located on an unnamed tributary of the Guadalupe River, Guadalupe River Basin, approximately 1.5 miles southeast of the City of New Braunfels, bearing N 58° W, 2,847 feet from the southeast corner of the Thompson J. Original Survey No. 091, Abstract No. 608, also being Latitude 29.687222° N, Longitude 98.098611° W at a discharge rate of 17.8 cfs (7,986 gpm).

3. DIVERSION

A. Permittee is authorized to divert its groundwater based return flows from any point along the perimeter of Lake Dunlap on the Guadalupe River, Guadalupe River Basin, approximately nine miles northwest of Seguin and 4.5 miles southeast of New Braunfels, bearing S 36° E, 13,141 feet from the northwest corner of the A.M. Esnaurizar Original Survey No. 187, Abstract No. 20, also being Latitude 29.653833° N and Longitude 98.066333° W in Guadalupe County.

B. Permittee is authorized to divert its groundwater based return flows at a maximum diversion rate not to exceed the combined discharge rate of its groundwater based return flows and not to exceed 41.55 cfs (18,646 gpm).

4. TIME PRIORITY

The groundwater based return flows authorized to be conveyed via the bed and banks of a State watercourse in this permit do not have a priority date and are not subject to priority calls from senior water rights.

5. SPECIAL CONDITIONS

A. Diversions of return flows shall be authorized when streamflow exceeds the following values at USGS Gage No. 08169792 (Guadalupe River at Seguin):

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Season	Winter			Spring			Summer			Fall		
Subsistence Flow (cfs)	118	118	118	118	118	118	118	118	118	101	101	101

B. Permittee shall implement measures to minimize impacts to aquatic resources due to entrainment or impingement including, but not limited to, the installation of screens at the diversion facilities.

C. Diversions authorized by this permit are dependent upon potentially interruptible return flows or discharges and are conditioned on the availability of those discharges. The right to divert the discharged return flows is subject to revocation if

discharges become permanently unavailable for diversion and may be subject to reduction if the return flows are not available in quantities and qualities sufficient to fully satisfy the permit. Should the discharges become permanently unavailable for diversion, Permittee shall immediately cease diversion under this permit and either apply to amend the permit, or voluntarily forfeit the permit. If Permittee does not amend or forfeit the permit, the Commission may begin proceedings to cancel this permit.

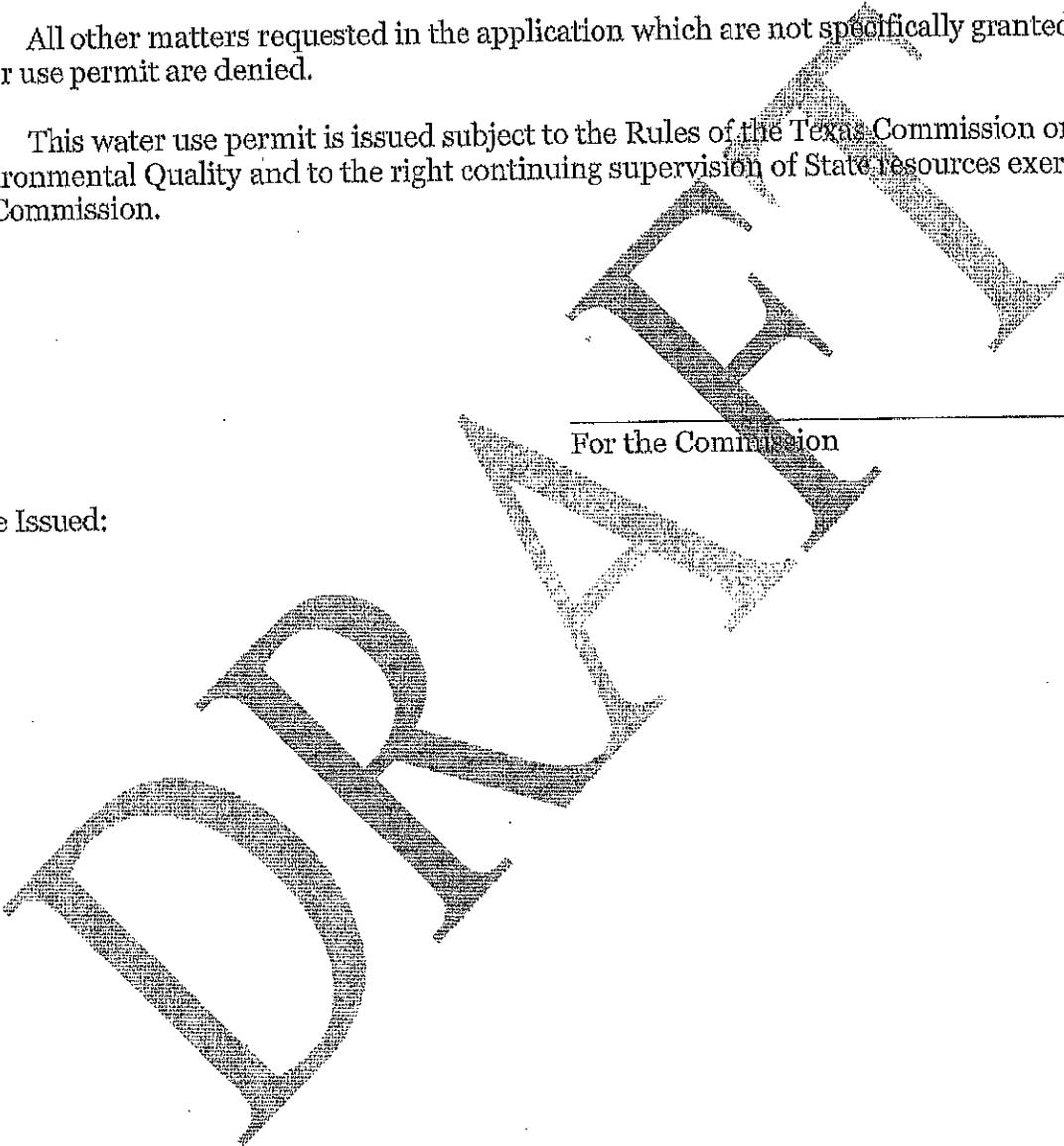
- D. Permittee shall only divert groundwater based return flows that are actually discharged.
- E. Permittee shall only divert and use return flows pursuant to Paragraph 1. USE and Paragraph 3. DIVERSION in accordance with the most recently approved accounting plan (*New Braunfels Utilities Accounting Plan*). Permittee shall maintain the plan in electronic format and make the data available to the South Texas Watermaster upon request. Any modifications to the accounting plan shall be approved by the Executive Director. Any modification to the accounting plan that changes the permit terms must be in the form of an amendment to the permit. Should Permittee fail to maintain the accounting plan or notify the Executive Director of any modifications to the plan, Permittee shall immediately cease diversion of discharged return flows, and either apply to amend the permit, or voluntarily forfeit the permit. If Permittee fails to amend the accounting plan or forfeit the permit, the Commission may begin proceedings to cancel the permit. Permittee shall immediately notify the Executive Director upon modification of the accounting plan and provide copies of the appropriate documents effectuating such changes.
- F. The *New Braunfels Utilities Accounting Plan* may be modified at any time by the Watermaster or other Executive Director staff if any modifications are deemed necessary.
- G. Prior to diversion of any groundwater based return flows in excess of the combined discharge amount currently authorized by TPDES permits 10232-001, 10232-002 and 10232-003, Permittee shall apply for and be granted the right to reuse those return flows. Permittee must amend the *New Braunfels Utilities Accounting Plan* to include these future return flows prior to diverting said return flows.
- H. Permittee shall install and maintain a measuring device which accounts for, within 5% accuracy, the quantity of water diverted from the point(s) authorized above in Paragraph 3. DIVERSION and maintain measurement records.
- I. Permittee shall allow representatives of the TCEQ reasonable access to the property to inspect the measuring device and records.
- J. Permittee shall contact the South Texas Watermaster prior to diversion of water authorized by this permit.

This water use permit is issued subject to all superior water rights in the Guadalupe River Basin.

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

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

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



For the Commission

Date Issued:

Texas Commission on Environmental Quality
INTEROFFICE MEMORANDUM

To: Sarah Henderson, Project Manager
Water Rights Permitting Team
Water Rights Permitting & Availability Section

Through: Kathy Alexander, Ph.D.
Technical Specialist
Water Availability Division

From: Christine Peters, Senior Hydrologist
Water Rights Permitting & Availability Section

Subject: New Braunfels Utilities
WRPERM 12469
CN 600522957
Guadalupe River, Guadalupe River Basin
Guadalupe County

Date: February 12, 2015

WATER AVAILABILITY ANALYSIS ADDENDUM

Application Summary

NBU in its application estimated that on average, 65% of the discharge is from surface water and 35% is from groundwater. On September 30, 2014, NBU submitted additional information and indicating that they have undertaken the development of additional groundwater resources that will, over time, result in a change to the percentage of groundwater based return flows that would be available for NBU's diversion and use. Staff recognizes these percentages can change depending on the source of water that NBU utilizes in its treatment system. NBU provided additional information in support of a change that would allow NBU to divert any groundwater based effluent that it discharged. NBU provided information indicating that the impact from diversion of up to 9,408 acre-feet of water per year on other water rights is minimal. NBU submitted a revised accounting plan on December 5, 2014 in support of its amended application. Additionally, NBU seeks additional authorization to use the bed and banks of Lake Dunlap to convey its return flows.

Water Availability Review and No Injury Analysis

Regarding the request to use the bed and banks of Lake Dunlap to convey return flows, the Guadalupe Blanco River Authority (owner of Lake Dunlap) has consented to the application. Staff performed the same analysis as described in its June 30, 2014 memorandum to determine if other water rights would be affected if all NBU source water is groundwater. The analysis indicated that 76 water rights would be negatively affected by the diversion of the groundwater based return flows, although the impact

affected by the diversion of the groundwater based return flows, although the impact was minimal. The difference in reliability without the diversion of the groundwater based return flows and with the diversion of the groundwater based return flows ranged from 0.03% to 1.05%. The results of the analysis indicate that although the reliabilities of some rights were negatively affected as a result of this application, the effects are minimal.

NBU submitted an accounting plan (*New Braunfels Accounting Plan*) that accounts for the amount of discharged return flows, adjusted for the portion of those return flows originating from groundwater, and the amount of divertible return flows. Staff reviewed the accounting plan and found it adequate. In addition, the permit would be subject to the requirements and orders of the South Texas Watermaster. The Watermaster actively manages water rights on a daily basis and protects senior water rights in times of shortage, based on their priority dates. Therefore, staff's opinion is that any possible impacts on existing basin water rights, should those impacts be determined to exist, would be mitigated by South Texas Watermaster operations and the accounting plan.

Conclusion

TWC 11.042(b) specifically allows for the use of waters of the state for the conveyance of groundwater-based return flows. NBU's groundwater based return flows would not be considered to be part of the natural flow of the Guadalupe River. Pursuant to TWC 11.042(b), the only limitations on the amount of groundwater based return flows NBU could reuse are for losses, environmental interests, and protection of any water rights that were granted based on the use or availability of those return flows. Therefore, staff can support granting NBU's request to reuse that portion of NBU's discharges that originate from groundwater, up to a maximum of 9,408 acre-feet subject to NBU's accounting plan.

Staff found no impacts to other water rights and therefore no changes to staff's previous conclusion dated June 30, 2014; however staff recommends the following modifications to Draft Permit No. 12469:

Special Condition 5D should be deleted because it is no longer applicable to the amended application.

1. In lieu of Special Condition 5.C: Diversions authorized by this permit are dependent upon potentially interruptible return flows or discharges and are conditioned on the availability of those discharges. The right to divert the discharged return flows is subject to revocation if discharges become permanently unavailable for diversion and may be subject to reduction if the return flows are not available in quantities and qualities sufficient to fully satisfy the permit. Should the discharges become permanently unavailable for diversion, Permittee shall immediately cease diversion under this permit and either apply to amend the permit, or voluntarily forfeit the permit. If Permittee does not amend or forfeit the permit, the Commission may begin proceedings to cancel this permit.

2. In lieu of Special Condition 5.E: Permittee shall only divert and use return flows pursuant to Paragraph 1. USE and Paragraph 3. DIVERSION in accordance with the most recently approved accounting plan (*New Braunfels Accounting Plan*). Permittee shall maintain the plan in electronic format and make the data available to the South Texas Watermaster upon request. Any modifications to the accounting plan shall be approved by the Executive Director. Any modification to the accounting plan that changes the permit terms must be in the form of an amendment to the permit. Should Permittee fail to maintain the accounting plan or notify the Executive Director of any modifications to the plan, Permittee shall immediately cease diversion of discharged return flows, and either apply to amend the permit, or voluntarily forfeit the permit. If Permittee fails to amend the accounting plan or forfeit the permit, the Commission may begin proceedings to cancel the permit. Permittee shall immediately notify the Executive Director upon modification of the accounting plan and provide copies of the appropriate documents effectuating such changes.
3. In lieu of Special Condition 5.F: The *New Braunfels Utilities Accounting Plan* may be modified at any time by the Watermaster or other Executive Director staff if any modifications are deemed necessary.
4. In lieu of Special Condition 5.G: Prior to diversion of any groundwater based return flows in excess of the combined discharge amount currently authorized by TPDES permits 10232-001, 10232-002 and 10232-003, Permittee shall apply for and be granted the right to reuse those return flows. Permittee must amend the *New Braunfels Accounting Plan* to include these future return flows prior to diverting said return flows.

HYDROLOGY UNIT ANALYSIS FACT SHEET

Applicant: New Braunfels Utilities Basin: Guadalupe River Basin
 Water Right: 12469 County: Guadalupe
 Stream: Guadalupe River Requested Amount: 9,408 acre-feet

Changes to gsarun3.dat:

** NBU 12469 Groundwater based Return flows**

CI381901	35	33	42	38	44	36
CI	43	37	38	41	39	43
CINORTHK	154	136	153	148	163	166
CI	178	173	165	169	166	178
CISOUTHK	211	199	231	226	231	227
CI	247	237	248	259	257	276

** IF/WR/ Records

**

**New Braunfels Utilities, App. No. 12469,

IF384301 82306 IFNBUR11010102

NBU_IF1

**groundwater based return flows

WR548801 0. MUN111010102 1

12469_GW

NBU

TS	ADD	1989	400	368	426	412	438	429	468	447.	451	469
462	497											

IF384301 0 IFNBUR11010102

NBU_IF2

IF384301 82306 IFNBUR20091120

NBU_IF3

The application was declared administratively complete on November 20, 2009.

Water Availability Review and No Injury Analysis

Resource Protection staff recommends the following Special Condition be included in the permit, if granted:

Permittee shall only divert authorized return flows under this permit when streamflow exceeds the following values at USGS Gage No. 08169792 (Guadalupe River at Seguin):

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Season	Winter			Spring			Summer			Fall		
Subsistence Flow	118	118	118	118	118	118	118	118	118	101	101	101

Staff reviewed NBU's request to reuse its return flows by determining the availability of return flows originating from surface water and then evaluating whether NBU's reuse of return flows, irrespective of the source, would affect senior water rights. First, staff reviewed water rights in the Guadalupe River Basin to determine whether any existing water rights were explicitly granted based on NBU's return flows and determined that, based on available commission records, no water rights were explicitly granted based on these return flows.

The Water Rights Analysis Package (WRAP) simulates management of the water resources of a river basin. TCEQ uses WRAP in the evaluation of water right permit applications using priority-based water allocation. WRAP is a generalized simulation model for application to any river basin, and input datasets must be developed for the particular river basin of concern. The TCEQ developed water availability models (WAMs) for Texas' river basins that include geographical information, water right information, naturalized flows, evaporation rates, and specific management assumptions. Hydrology staff operates WRAP to evaluate water rights applications to determine water availability and to ensure that senior water rights are protected.

In order to evaluate whether reuse of that portion of the return flows originating from groundwater would affect other water rights that may have been granted based on the use or availability of this portion of the return flows, and to determine availability of return flows originating from surface water, staff used the Full Authorization Simulation of the Guadalupe WAM in which all water rights use their authorized amounts and return flows are not included. The period of record for the Guadalupe WAM is 1934 through 1989.

Staff first modified the Guadalupe WAM to include the historically discharged

groundwater-based return flows from NBU's three treatment plants. NBU submitted discharge information for the period 2004 through 2008. However, staff used more current TCEQ data (through 2012), calculated the minimum monthly discharge for each month for each treatment plant and used 35% of that value to represent the portion of NBU's return flows that were based on groundwater. Staff first performed a simulation without NBU's diversion of groundwater-based return flows 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 NBU's diversion of the groundwater-based return flows, assuming that those diversions had the most senior priority date in the basin. Staff then compared results for the two simulations.

The analysis indicates that 115 water rights would be negatively affected by diversion of the groundwater-based portion of the historically discharged return flows, although the impact was minimal. The difference in volume reliability without the diversion of the groundwater-based return flows and with the diversion of groundwater-based return flows ranged from 0.01% to 1.39%. The results of the analysis indicate that although the volume reliabilities of some rights were negatively affected as a result of this application, the effects are minimal.

NBU submitted an accounting plan (*New Braunfels Accounting Plan*) that accounts for the amount of discharged return flows, adjusted for the portion of those return flows originating from groundwater, and the amount of divertible return flows. Staff reviewed the accounting plan and found it adequate. In addition, the permit would be subject to the requirements and orders of the South Texas Watermaster. The Watermaster actively manages water rights on a daily basis and protects senior water rights in times of shortage, based on their priority dates. Therefore, staff's opinion is that any possible impacts on existing basin water rights, should those impacts be determined to exist, would be mitigated by South Texas Watermaster operations and the accounting plan.

Staff then used the modified Guadalupe WAM, which included discharges and diversion of groundwater-based return flows, and added the historically discharged surface water-based return flows from NBU's three treatment plants. Staff calculated the monthly discharge amount as discussed above and used 65% of that value to represent the portion of NBU's return flows that were based on surface water. Staff then modeled diversion of these return flows at a priority date of November 20, 2009. The simulation results indicate that 100 percent and at least 75 percent of the surface water-based return flows were not available in any year of the period of record and that at least 75 percent of the monthly demand would be met in 17 percent of the months. Staff then iteratively reduced the amount of diverted surface water to determine whether any portion of NBU's surface water-based return flows was available and found that the simulation results were unchanged.

Reviews of requests for interbasin transfers are conducted in accordance with §11.085 of the Texas Water Code and TCEQ rules regarding IBTs. NBU's request for an interbasin transfer is exempt under TWC §11.085 (v)(4). Therefore, staff did not perform a review under TWC §11.085.

Conclusion

TWC 11.042(b) specifically allows for the use of waters of the state for the conveyance of groundwater-based return flows. NBU's groundwater-based return flows would not be considered to be part of the natural flow of the Guadalupe River. Pursuant to TWC 11.042(b), the only limitations on the amount of groundwater-based return flows NBU could reuse are for losses, environmental interests, and protection of any water rights that were granted based on the use or availability of those return flows. Therefore, staff can support granting NBU's request to reuse that portion of NBU's discharges that originate from groundwater.

Based on the simulation results, staff cannot support granting an authorization to reuse that portion of NBU's historically discharged return flows that originate from surface water. Regarding reuse of return flows that may be discharged in the future as a result of authorized increases in discharges from the three treatment plants, NBU can apply to reuse those return flows when the increased discharges are authorized under the respective TPDES permits.

The maximum amount of the authorization should be limited to 3293 acre-feet per year (35% of the combined discharge amount under the three TPDES permits). Staff recommends that the following special conditions be included in the permit:

1. Diversions authorized by this permit are dependent upon potentially interruptible return flows or discharges and are conditioned on the availability of those discharges. The right to divert the discharged return flows is subject to revocation if discharges become permanently unavailable for diversion and may be subject to reduction if the return flows are not available in quantities and qualities sufficient to fully satisfy the permit. Should the discharges become permanently unavailable for diversion, Permittee shall immediately cease diversion under this permit and either apply to amend the permit, or voluntarily forfeit the permit. If Permittee does not amend or forfeit the permit, the Commission may begin proceedings to cancel this permit.
2. Permittee shall only divert 35% of the daily return flows that are actually discharged.
3. Permittee shall only divert and use return flows pursuant to Paragraph 1. USE and Paragraph 3. DIVERSION in accordance with the most recently approved accounting plan (*New Braunfels Accounting Plan*). Permittee shall maintain the

The maximum amount of the authorization should be limited to 3293 acre-feet per year (35% of the combined discharge amount under the three TPDES permits). Staff recommends that the following special conditions be included in the permit:

1. Diversions authorized by this permit are dependent upon potentially interruptible return flows or discharges and are conditioned on the availability of those discharges. The right to divert the discharged return flows is subject to revocation if discharges become permanently unavailable for diversion and may be subject to reduction if the return flows are not available in quantities and qualities sufficient to fully satisfy the permit. Should the discharges become permanently unavailable for diversion, Permittee shall immediately cease diversion under this permit and either apply to amend the permit, or voluntarily forfeit the permit. If Permittee does not amend or forfeit the permit, the Commission may begin proceedings to cancel this permit.
2. Permittee shall only divert 35% of the daily return flows that are actually discharged.
3. Permittee shall only divert and use return flows pursuant to Paragraph 1. USE and Paragraph 3. DIVERSION in accordance with the most recently approved accounting plan (*New Braunfels Accounting Plan*). Permittee shall maintain the plan in electronic format and make the data available to the South Texas Watermaster upon request. Any modifications to the accounting plan shall be approved by the Executive Director. Any modification to the accounting plan that changes the permit terms must be in the form of an amendment to the permit. Should Permittee fail to maintain the accounting plan or notify the Executive Director of any modifications to the plan, Permittee shall immediately cease diversion of discharged return flows, and either apply to amend the permit, or voluntarily forfeit the permit. If Permittee fails to amend the accounting plan or forfeit the permit, the Commission may begin proceedings to cancel the permit. Permittee shall immediately notify the Executive Director upon modification of the accounting plan and provide copies of the appropriate documents effectuating such changes.
4. The *New Braunfels Utilities Accounting Plan* may be modified at any time by the Watermaster or other Executive Director staff if any modifications are deemed necessary.
5. Prior to diversion of any return flows in excess of 35% of the combined amount currently authorized by TPDES permits 10232-001, 10232-002 and 10232-003, Permittee shall apply for and be granted the right to reuse those return flows. Permittee must amend the accounting plan to include these future return flows prior to diverting said return flows.

HYDROLOGY UNIT ANALYSIS FACT SHEET

Applicant: New Braunfels Utilities
 Water Right: 12469
 Stream: Guadalupe River

Basin: Guadalupe
 County: Guadalupe
 Requested Amount: 9408 acre-feet/year

Modification to *.dis file:-

**City of New Braunfels, App. No. 12469

FDNORTHK CP06

WPNORTHK 1.54

FDSOUTHK CP06

WPSOUTHK 3.01

**Modification to *.dat file:-

UCIFNBUR 7254 6552 7254 7020 7254 7020 = 82306

UC 7254 7254 7020 6209 6008 6209

**

** NBU 12469

CPNORTHK 383001 6 none 0.0000

CPSOUTHK 383001 6 none 0.0000

**

** NBU 12469 Groundwater based Return flows***

CI381901 12 12 15 13 15 13

CI 15 13 13 14 14 15

CINORTHK 54 48 54 52 57 58

CI 62 61 58 59 58 62

CISOUTHK 74 70 81 79 81 79

CI 86 83 87 91 90 97

**

** NBU 12469 Surface water based Return flows***

CI381901 23 21 27 25 29 23

CI 28 24 25 27 25 28

CINORTHK 100 88 99 96 106 108

CI 116 112 107 110 108 116

CISOUTHK 137 129 150 147 150 148

CI 161 154 161 168 167 179**

**New Braunfels Utilities, App. No. 12469,

IF384301 82306 IFNBUR11010102 NBU_IF1

**groundwater based return flows

WR548801 0. MUN11010102 1 12469_GW NBU

TS ADD 1989 140 130 150 144 153 150 163 157 158 164 162 174

IF384301 0 IFNBUR11010102 NBU_IF2

IF384301 82306 IFNBUR20091120 NBU_IF3

WR548801 0. MUN120091120 1 12469_SW NBU

TS ADD 1989 260 238 276 168 285 279 305 290 293 305 300 323

Remarks: Resource Protection staff recommended instream flow requirements for this application.

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Sarah Henderson, Project Manager Date: June 26, 2014
Water Rights Permitting Team
Water Rights Permitting & Availability Section

Through: *CL* Chris Loft, Team Leader
6/26/14 Resource Protection Team
Water Rights Permitting & Availability Section

From: *RH* Robert Hansen, Senior Aquatic Scientist
6/26/14 Resource Protection Team
Water Rights Permitting & Availability Section

Subject: New Braunfels Utilities
WRPERM 12469
Application No. 12469 for a Water Use Permit
CN600522957
Guadalupe River
Guadalupe River Basin
Guadalupe County

Environmental reviews of water right applications are conducted in accordance with §11.042, §11.147, §11.1491, §11.150, and §11.152 of the Texas Water Code and with Texas Commission on Environmental Quality (TCEQ) administrative rules which include 30 Texas Administrative Code (TAC) §297.53 through §297.56. These statutes and rules require the TCEQ to consider the possible impacts of the granting of a water right on fish and wildlife habitat, water quality, and instream uses associated with the affected body of water. Possible impacts to bays and estuaries are also addressed.

ENVIRONMENTAL ANALYSIS

Application Summary: New Braunfels Utilities (NBU) seeks authorization to use the bed and banks of the Guadalupe River and its tributaries to discharge and transport 8.4 million gallons/day (MGD), approximately 9,408 acre-feet of water per year of historical and future groundwater and surface water return flows authorized by TPDES Permit Nos. WQ0010232001 (South Kuehler Wastewater Treatment Facility), WQ0010232002 (Gruene Road Wastewater Treatment Facility), and WQ0010232003 (North Kuehler Wastewater Treatment Facility). The Gruene Wastewater Treatment Facility discharges directly to the Guadalupe River approximately 5 miles upstream of Lake Dunlap and the two Kuehler Wastewater Treatment Facilities discharge to an unnamed tributary of the Guadalupe River approximately 0.5 mile from Lake Dunlap. NBU also seeks to divert

and use the historical and future groundwater and surface water return flows from anywhere along the perimeter of Lake Dunlap, Guadalupe River, Guadalupe River Basin for municipal, industrial and agricultural purposes.

INSTREAM USES

Aquatic and Riparian Habitats: Major land uses within Guadalupe County include farming and ranching, mining, and oil and gas production. The northwestern portion of the county is part of the Blackland Prairie and much of the land in the county is considered prime farmland. According to the *Handbook of Texas Online*, Guadalupe County soils vary from dark, calcareous clays in the northwest to fine, sandy loam in the Upper Coastal Plain portion of the county. These soils support grasses, mesquite, and scrub brush in the drier regions of the county and water-tolerant hardwoods and conifers near the creeks and rivers. The Guadalupe River was developed in the 1920s and 1930s as a source of hydroelectric power. Lake Dunlap and Lake McQueeney were impounded downstream of New Braunfels and provide many recreational opportunities. Photos provided by the applicant depict the proposed diversion reach along the perimeter of Lake Dunlap.

Lake Dunlap impounds the Guadalupe River downstream of the confluence with the Comal River. According to a 2005 report by Texas Parks and Wildlife Department (TPWD), Lake Dunlap is a 410-acre impoundment constructed in 1928 for water supply, hydroelectric generation, and recreation. Substrate in the upper portion of the lake is composed primarily of rock and gravel, while substrate in the middle and lower portions of the reservoir is composed of clays, sand, and silt. The fish community includes gizzard shad (*Dorosoma cepedianum*), bluegill (*Lepomis macrochirus*), largemouth bass (*Micropterus salmoides*), Guadalupe bass (*Micropterus treculii*), spotted bass (*Micropterus punctulatus*), white crappie (*Pomoxis annularis*), black crappie (*Pomoxis nigromaculatus*), redear sunfish (*Lepomis microlophus*) and channel catfish (*Ictalurus punctatus*) (TPWD 2005). The shoreline is comprised of bulkheads and cutbanks and the littoral habitat includes native aquatic plant species such as American lotus (*Nelumbo lutea*), spatterdock (*Nuphar luteum*), and water willow (*Justicia Americana*) (TPWD 2005).

The Texas Commission on Environmental Quality (TCEQ) regulates bed and banks authorizations to convey groundwater and surface water based effluent under the authority of Texas Water Code §11.042. That provision allows the commission to place special conditions in the authorization to "maintain instream uses and freshwater inflows to bays and estuaries." On August 8, 2012, TCEQ adopted environmental flow standards for the Guadalupe and San Antonio Rivers, their associated tributaries, and San Antonio Bay. By rule, these environmental flow standards are considered adequate to support a sound ecological environment. This review is conducted in accordance with §11.042 of the Texas Water Code, and although this is not a new appropriation of water, will utilize TCEQ administrative rules which include 30 Texas Administrative Code (TAC) §298 Subchapter E (Guadalupe, San Antonio, Mission, and Aransas Rivers, and

Mission, Copano, Aransas, and San Antonio Bays) to provide consistency in water rights administration. The nearest stream gage to the proposed diversion reach in 30 TAC §298.380(c) is United States Geological Survey (USGS) Gage No. 08173900 – Guadalupe River at Gonzales. However, USGS Gage No. 08169792 – Guadalupe River at Seguin is located upstream of USGS Gage No. 08173900 and closer to the proposed diversion reach. Therefore, a drainage area adjustment was used to determine the appropriate environmental flow values for the Guadalupe River near Seguin. The resulting environmental flows for this segment of the Guadalupe River are shown in the following table:

Environmental flow values (cfs) at Gage No. 08169792 – Guadalupe River at Seguin, TX.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Season	Winter			Spring			Summer			Fall		
Subsistence Flow	118	118	118	118	118	118	118	118	118	101	101	101

Diversions of water under this permit shall be authorized when streamflows exceed the above values at USGS Gage No. 08169792 (Guadalupe River at Seguin).

Recreational Uses: There are numerous recreational opportunities on the Guadalupe River and Lake Dunlap including boating, water skiing, jet skiing, and fishing. Sections of the upper, middle, and lower reaches of the river are suitable for canoeing. The lower Guadalupe River has numerous sand bars that lend themselves to camping and day use. The proposed addition of bed and banks authorization and a diversion reach should not adversely impact recreational uses.

Water Quality: Based on the *Atlas of Texas Surface Waters* (TCEQ 2004), Lake Dunlap is part of Segment No. 1804 (Guadalupe River Below Comal River). According to the *Texas Surface Water Quality Standards*, Title 30 of the Texas Administrative Code, Chapter 307, designated uses for this segment include high aquatic life use, contact recreation, public water supply, and aquifer protection (TCEQ 2010). According to the *Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)* (TCEQ 2010), all designated uses are fully supporting. The addition of bed and banks authorization and a diversion reach should not adversely impact water quality.

Coastal Zone Management Review: Freshwater inflows are important for maintaining the historical productivity of bays and estuaries along the Gulf Coast. As an individual event, the reuse of return flows should have minimal impacts to the bays and estuaries of the Guadalupe River Basin.

SUMMARY

New Braunfels Utilities (NBU) seeks authorization to use the bed and banks of the Guadalupe River and its tributaries to discharge and transport 8.4 MGD, approximately 9,408 acre-feet of water per year of historical and future groundwater and surface water return flows authorized by TPDES Permit Nos. WQ0010232001, WQ0010232002, and WQ0010232003. NBU also seeks to divert and use the historical and future groundwater and surface water return flows from anywhere along the perimeter of Lake Dunlap, Guadalupe River, Guadalupe River Basin for municipal, industrial and agricultural purposes.

Resource Protection staff recommends the following Special Conditions be included in the permit, if granted:

1. Diversions of return flows shall be authorized when streamflow exceeds the following values at USGS Gage No. 08169792 (Guadalupe River at Seguin):

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Season	Winter			Spring			Summer			Fall		
Subsistence Flow	118	118	118	118	118	118	118	118	118	101	101	101

2. In order to minimize entrainment and impingement of aquatic organisms, the permittee shall install screens on any new or modified diversion structure(s) with a mesh size no greater than 0.25 inches and a maximum flow-through screen velocity of 0.5 feet per second.

This instream use assessment was conducted using current TCEQ operation procedures and policies and available data and information. Authorizations granted to the permittee by the water rights permit shall comply with all rules of the Texas Commission on Environmental Quality, and other applicable State and Federal authorizations.

LITERATURE CITED

TCEQ, 2004. Atlas of Texas Surface Waters: Maps of the Classified Segments of Texas Rivers and Coastal Basins. Publication No. GI-316. Texas Commission on Environmental Quality. Austin, Texas.

TCEQ, 2010. Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d). Texas Commission on Environmental Quality.

TCEQ. 2010. Texas Surface Water Quality Standards §307.1 – 307.10. Texas Commission on Environmental Quality.

TPWD. 2005. Statewide freshwater fisheries monitoring and management program 2005 Survey Report. Prepared by John Findeisen and Todd Neahr. Inland Fisheries Division, District I-E, Mathis, Texas.

Vivian Elizabeth Smyrl. "GUADALUPE COUNTY", *Handbook of Texas Online* (<http://www.tshaonline.org/handbook/online/articles/hcg12>), accessed February 25, 2013. Published by the Texas State Historical Association.

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Sarah Henderson, Project Manager
Water Rights Permitting Team
Water Rights Permitting & Availability Section
Date: June 26, 2014

Thru: *AL* Chris Loft, Team Leader
6/26/14 Resource Protection Team
Water Rights Permitting & Availability Section

JA
6/26/14 Jennifer Allis, Senior Water Conservation Specialist
Resource Protection Team
Water Rights Permitting & Availability Section

From: Kristin Wang, Senior Water Conservation Specialist
KW
6/26/14 Resource Protection Team
Water Rights Permitting & Availability Section

Subject: New Braunfels Utilities
WRPERM 12469
CN600522957
Application No. 12469 for a Water Use Permit
Water Conservation Review

New Braunfels Utilities (NBU) has applied for a Water Use Permit for authorization to appropriate, divert, and use up to 9,408 acre-feet of NBU historic and future surface water-based return flows and groundwater-based return flows, irrespective of their source, discharged pursuant to their Texas Pollutant Discharge Elimination System (TPDES) permits, for municipal, industrial, and agricultural purposes. NBU also seeks to use the bed and banks of the Guadalupe River and its tributaries to convey NBU return flows from the wastewater treatment plant outfalls associated with the TPDES permits to the proposed diversion(s) anywhere along the perimeter of Lake Dunlap, located on the Guadalupe River, Guadalupe River Basin, Guadalupe County.

Pursuant to Texas Water Code (TWC), Section 11.085(v)(4), NBU also seeks authorization for an exempt interbasin transfer of NBU return flows from that portion of Guadalupe County located in the Guadalupe River Basin to that portion of said County located in the adjoining San Antonio River Basin, for municipal, industrial, and agricultural purposes.

An application to divert return flows from a stream results in a new source of water for the applicant. Therefore, for the purposes of a conservation review under 30 Texas Administrative Code (TAC) Section 295.9, staff believes that it meets the definition of an application to appropriate water and requires a technical review. This does not mean

that TCEQ would or would not consider this application to be an "appropriation" of water in other contexts. Although this review evaluates the entire NBU water system, this review is specifically triggered by the portion of this application that pertains to surface water return flows.

The applicant is required to provide evidence that the amount of water appropriated will be beneficially used, i.e., effectively managed and not wasted pursuant to TWC Section 11.134(b)(3)(A). Also, the applicant must provide evidence that reasonable diligence will be used to avoid waste and achieve water conservation pursuant to TWC Section 11.134(b)(4). To provide that evidence, the applicant must submit a water conservation plan in accordance with 30 TAC Chapter 288. In applications where a new appropriation of water is requested, the review includes an analysis of whether the requested appropriation is reasonable and necessary for the proposed uses in accordance with TWC Section 11.134 and 30 TAC Section 297.50.

The purpose of this review is to:

- (1) determine whether reasonable water conservation goals have been set;
- (2) determine whether the proposed strategies can achieve the stated goals;
- (3) determine whether there is a substantiated need for the water and whether the amount to be appropriated is reasonable for the proposed use; and
- (4) determine whether the water conservation plan addresses a water supply need in a manner that is consistent with the state water plan and the relevant approved regional water plan.

If these criteria are met, then staff considers this sufficient evidence to conclude that the applicant will avoid waste and achieve water conservation. This review forms a basis for permit conditions and limitations as provided by TWC Section 11.134.

The water conservation and drought contingency plans submitted by New Braunfels Utilities were reviewed by staff and found to be administratively complete per 30 TAC Chapter 288 for municipal uses. In the 2014 water conservation plan, NBU states that with continued public education/awareness, city ordinances, meter replacement and repair, more water-conserving plumbing fixtures replacement, and a cost based water rate structure they anticipate a water use reduction of 1 gallon per capita per day (gpcd) per year. Therefore, NBU provides the following specific and quantified five and ten-year goals for gpcd:

2015 - 156 gpcd
2020 - 151 gpcd
2025 - 146 gpcd

Additionally, NBU's current goal for unaccounted water loss is 6.5%. NBU currently tracks this on a monthly and a rolling 12-month average. NBU will continue to maintain this goal in order to minimize the unaccounted water loss.

Staff has determined that NBU's programs and strategies appear to be reasonable for achieving the goals for reduction in per capita water use within its service area.

Staff conducted an analysis of the needs for water. According to the approved 2011 South Central Texas Regional Water Plan, New Braunfels will have a projected water need of 13,920 acre-feet by the year 2060.

The 2011 water plan includes the Recycled Water Programs water management strategy as a way to generate the recommended new supplies for Region L and lists NBU as one of the water utility districts with an available or projected supply of recycled water. The request for authorization to appropriate, divert, and use up to 9,408 acre-feet of NBU historic and future surface water-based return flows and groundwater-based return flows can help to meet the projected needs in the Region L water planning area. The application is consistent with the approved 2011 South Central Texas (L) Regional Water Plan and 2012 State Water Plan.

Staff recommends the following water conservation language be included in the permit if surface water based return flows are granted:

Permittee shall implement water conservation plans that provide for the utilization of those practices, techniques, and technologies that reduce or maintain the consumption of water, prevent or reduce the loss or waste of water, maintain or improve the efficiency in the use of water, increase the recycling and reuse of water, or prevent the pollution of water, so that a water supply is made available for future or alternative uses. Such plans shall include a requirement that in every water supply contract entered into, on or after the effective date of this permit, including any contract extension or renewal, that each successive wholesale customer develop and implement conservation measures. If the customer intends to resell the water, then the contract for resale of the water shall have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures.

In addition, staff recommends that, if surface water based return flows are granted, the following special condition should be included in the permit:

Ninety days prior to the diversion of water, for industrial and/or agricultural uses, the applicant must submit a water conservation plan to TCEQ to comply with 30 TAC Sections 288.3 and/or 288.4, accordingly.