

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
INTEROFFICE MEMORANDUM

TO: Chief Clerk
DATE: June 26, 2009

THRU: Iliana Delgado, Team Leader
Water Rights Permitting Team

FROM: Craig Mikes, Project Manager
Water Rights Permitting Team

SUBJECT: San Angelo Water Supply Corporation
Docket No. 2008-1617-WR
ADJ 1318
CN601374275, RN102721461
Application No. 14-1318C to Amend Certificate of Adjudication No. 14-1318
TWC §11.122, Requiring Downstream Mailed and Published Notice
Middle Concho River, Colorado River Basin
Tom Green County

CHIEF CLERKS OFFICE

2009 AUG - 7 AM 9: 58

TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY

The Executive Director received an application from the San Angelo Water Supply Corporation seeking to amend Certificate of Adjudication No. 14-1318 pursuant to Texas Water Code §11.122 and Texas Commission on Environmental Quality Rules 30 TAC §§295.1, *et seq.*

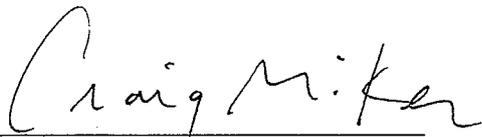
The application was received on March 30, 2005. The application was declared administratively complete and filed with the Office of the Chief Clerk on April 5, 2006. The notice of the application was filed with the Chief Clerk on August 25, 2005, and notice was subsequently published and mailed to the downstream water right holders of record in the Colorado River Basin. The revised notice of the application was filed with the Chief Clerk on April 18, 2006, and notice was subsequently published and mailed to the downstream water right holders of record in the Colorado River Basin. 44 requests for a public 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:

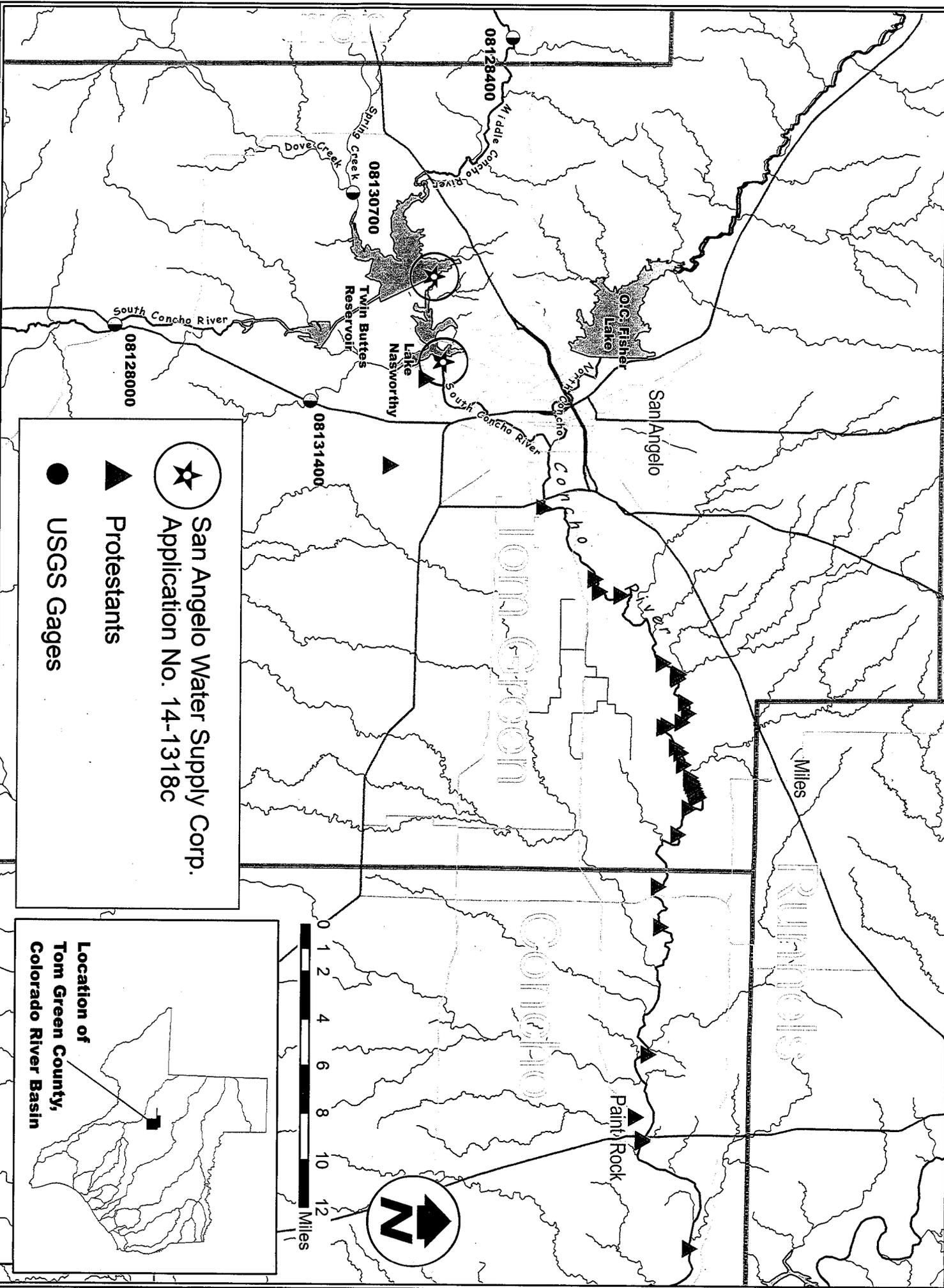
Consideration of San Angelo Water Supply Corporation's application to amend Certificate of Adjudication No. 14-1318 to modify Special Condition 5.C. to change the wording concerning what flows must be allowed free passage through a conduit constructed in the Twin Buttes Reservoir dam. Special Condition 5.C. of the Certificate currently states that a conduit shall be constructed in the aforesaid dam with the inlet at elevation 1,885.00 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate for the purpose of permitting the free passage of the normal flow through the dam at all times and the passage of those waters to which the Commission may determine lower appropriators are entitled. Certificate of Adjudication No. 14-1318 also currently authorizes the Owner to divert and use not to exceed 25,000 acre-feet of water per year from Twin Buttes Reservoir on the Middle Concho River, Spring Creek, and the South Concho River for agricultural purposes to irrigate 15,000 acres of land within the boundaries of Tom Green County Water Control and Improvement District No. 1. Owner is also authorized to divert and use not to exceed 29,000 acre-feet of water per year from Twin Buttes Reservoir for municipal purposes. The time priority of this water right is May 6, 1959. The commission shall also consider hearing requests, responses, and other filings. (Robin Smith, Craig Mikes)



Craig Mikes, Project Manager
Water Rights Permitting Team

Enclosures

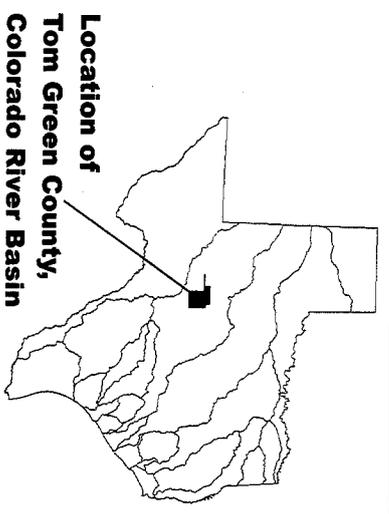
cc: Kellye Rila, TCEQ
Lann Bookout, TCEQ
Iliana Delgado, TCEQ
Christopher Loft, TCEQ
Scott Swanson, TCEQ
Stephen Densmore, TCEQ
Robin Smith, TCEQ
Kathy Alexander, TCEQ



 San Angelo Water Supply Corp.
Application No. 14-1318C

 Protestants

 USGS Gages


Location of
Tom Green County,
Colorado River Basin




0 1 2 4 6 8 10 12
Miles

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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AMENDMENT TO
CERTIFICATE OF ADJUDICATION

CERTIFICATE NO. 14-1318C

TYPE: 11.122

Owner:	San Angelo Water Supply Corporation	Address:	P.O. Box 1928 San Angelo, Texas 76902
Filed:	April 5, 2006	Granted:	
Purpose:	Municipal and Agricultural (Irrigation)	County:	Tom Green
Watercourse:	Middle Concho River, Spring Creek, and South Concho River, Tributaries of the Colorado River	Watershed:	Colorado River Basin

WHEREAS, Certificate of Adjudication No. 14-1318 authorizes the Owner to divert and use not to exceed 25,000 acre-feet of water per year from Twin Buttes Reservoir on the Middle Concho River, Spring Creek, and the South Concho River for agricultural purposes to irrigate 15,000 acres of land within the boundaries of Tom Green County Water Control and Improvement District No. 1; and

WHEREAS, Owner is also authorized to divert and use not to exceed 29,000 acre-feet of water per year from Twin Buttes Reservoir for municipal purposes; and

WHEREAS, the time priority of this water right is May 6, 1959; and

WHEREAS, Certificate of Adjudication No. 14-1318 contains multiple special conditions; and

WHEREAS, Special Condition 5.C. of the Certificate states that a conduit shall be constructed in the aforesaid dam with the inlet at elevation 1,885.00 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate for the purpose of permitting the free passage of the normal flow through the dam at all times and the passage of those waters to which the Commission may determine lower appropriators are entitled; and

WHEREAS, on March 30, 2005, the Owner submitted an application to amend Certificate of Adjudication No. 14-1318 in order to modify Special Condition 5.C. to read "a conduit shall be constructed in the aforementioned dam with the inlet at elevation 1,885.0 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate. Certificate holder shall permit and provide for the free passage of inflows to Twin Buttes Reservoir through the conduit in amounts to which lower appropriators are entitled as determined by the Watermaster or the commission based on streamflow gages located on upstream watercourses that the Watermaster or the commission considers appropriate for making such determinations"; and

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

WHEREAS, this amendment, if granted, is subject to requirements and orders of the Concho Watermaster; and

WHEREAS, the Executive Director recommends the Commission grant Certificate of Adjudication No. 14-1318C if Special Condition 5.C. is modified to read "A conduit shall be constructed in the aforementioned dam with the inlet at elevation 1,885.0 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate. Owner shall permit the free passage of inflows through Twin Buttes Reservoir via the conduit as required by Special Condition 2.C. of Certificate of Adjudication No. 14-1318C, and in such amounts as determined by the Watermaster or the Executive Director for downstream water right holders and domestic and livestock users"; and

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

WHEREAS, the Owner submitted an accounting plan, the *City of San Angelo Water Rights Accounting Plan* that includes a method for determining inflows to Twin Buttes Reservoir; and

WHEREAS, review of the *City of San Angelo Water Rights Accounting Plan* has been conducted by staff including the Concho Watermaster and it is agreed that the plan will serve to clearly define a diversion process for the City and will give the Watermaster the ability to adjust for possible effects in the System; and

WHEREAS, the Executive Director recommends that the existing accounting plan be modified further by the Watermaster as needed to incorporate any additional accounting requirements necessary to ensure efficient administration of water rights; and

WHEREAS, forty-four (44) contested case hearing requests have been received; and

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

NOW, THEREFORE, this amendment to Certificate of Adjudication No.14-1318, designated Certificate of Adjudication No. 14-1318C, is issued to San Angelo Water Supply Corporation subject to the following terms and conditions:

1. CONSERVATION

Owner 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 of waste or 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 use or alternative uses. Such plans shall include a requirement that in every wholesale water contract entered into, on or after the effective date of this amendment, including any contract extension or renewal, that each successive wholesale customer develop and implement conservation measures. If the

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customer intends to resell the water, then the contract for resale of the water must have water conservation requirements so that each successive wholesale customer in the resale of the water shall be required to implement water conservation measures.

2. SPECIAL CONDITIONS

- A. Owner shall install measuring devices which accounts for, within 5% accuracy, the quantity of water diverted at each diversion point. Owner shall allow representatives of the TCEQ Concho Watermaster reasonable access to the property to inspect the measuring device.
- B. In lieu of Special Condition 5.C. in Certificate of Adjudication No. 14-1318, Special Condition 5.C. now states that a conduit shall be constructed in the aforementioned dam with the inlet at elevation 1,885.0 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate. Owner shall permit for the free passage of inflows through Twin Buttes Reservoir via the conduit as required by Special Condition 2.C. of Certificate of Adjudication No. 14-1318C, and in such amounts as determined by the Watermaster or the Executive Director for downstream water right holders and domestic and livestock users.
- C. Owner shall only store water in accordance with the *City of San Angelo Water Rights Accounting Plan*. Owner shall maintain electronic records (in spreadsheet or database format) of the accounting plan and shall submit them to the Executive Director upon request.
- D. The *City of San Angelo Water Rights Accounting Plan* may be modified at any time by the Watermaster or the Executive Director in pursuance of their statutory duties under Chapter 11 of the Texas Water Code, with prior notice to the Owner, if any modifications are deemed necessary. Should the accounting plan be modified, the modified accounting plan will supersede the accounting plan that was in effect prior to the modifications.
- E. This amendment is issued contingent upon the Owner's maintenance of and compliance with the *City of San Angelo Water Rights Accounting Plan*. Any modifications to the *City of San Angelo Water Rights Accounting Plan* shall be approved by Watermaster or any other Executive Director staff. Any modification of the plan that changes the Certificate terms must be in the form of an amendment to the Certificate. Should the Owner fail to maintain the accounting plan or notify the Executive Director of any modifications to the plan, Owner shall immediately cease diversion operations and either apply to amend the certificate, or voluntarily forfeit this amendment. If Owner fails to amend the accounting plan or forfeit this amendment, the Commission may begin proceedings to cancel the amendment. The Commission shall be notified immediately by the Owner upon modification of the accounting plan and provided with copies of the appropriate documents effectuating such changes.

- F. Owner shall ensure that the USGS stream gages, 08128000, 08128400, 08130700, and 08131400, referenced in the accounting plan in Special Condition 2.C. above and used in determining the inflow into Twin Buttes Reservoir, be maintained through the owner's existing contractual arrangement with the U.S. Geological Survey (USGS) or another owner of the gages. Should owner fail to ensure through owner's contractual arrangement with the USGS, or another owner of the gages, that the gages are adequately maintained as necessary to comply with the accounting plan, the Commission may begin enforcement proceedings against the owner.
- G. Authorization herein is subject to the continued compliance with Special Condition 2.F. above. Should the gages used in the accounting plan become inoperable, Owner shall immediately notify the Commission, and submit an interim alternative plan for calculating inflow into Twin Buttes Reservoir during the period while the gages are inoperable. Within 20 days following the initial notice to the Commission of inoperable gages, Owner shall submit to the Commission a plan and schedule for either fully restoring the inoperable gages or using different gages for calculating inflows into Twin Buttes Reservoir. Should different gages be used, Owner shall, within 10 days, develop and submit a revision to the *City of San Angelo Water Rights Accounting Plan* incorporating the new gages and the Commission shall be provided with copies of the appropriate documents effecting such changes.
- H. In order to provide sufficient flows for the maintenance of instream uses, the Owner shall pass all inflows into Twin Buttes Reservoir necessary to maintain streamflow at the Lake Nasworthy dam outlet equal to or exceeding the following values in cubic feet per second:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.9	1.0	1.7	1.3	2.3	2.3	1.7	1.3	1.7	1.3	1.3	1.0

- I. Owner shall contact the Concho Watermaster prior to diversion of the authorized water.

This amendment is issued subject to all terms, conditions, and provisions contained in Certificate of Adjudication No. 14-1318, as amended, except as specifically amended herein.

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

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

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

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

DRAFT
Date issued

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For the Commission

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



REVISED NOTICE OF AN APPLICATION TO AMEND A CERTIFICATE OF ADJUDICATION

APPLICATION NO. 14-1318C

San Angelo Water Supply Corporation has applied for an amendment to Certificate of Adjudication No. 14-1318 to modify Special Condition 5C of the original Certificate, relating to passage of certain flows, in the Colorado River Basin, Tom Green County. More information on the application and how to participate in the permitting process is given below.

APPLICATION. San Angelo Water Supply Corporation, P.O. Box 1928, San Angelo, Texas 76902, applicant, has applied to the Texas Commission on Environmental Quality (TCEQ) for an amendment to a Certificate of Adjudication pursuant to §11.122, Texas Water Code, and Texas Commission on Environmental Quality Rules 30 Texas Administrative Code (TAC) §295.1, *et seq.* Notice of the application is being published and mailed pursuant to 30 TAC §295.158(b) to the 936 downstream water right holders of record in the Colorado River Basin.

Certificate of Adjudication No. 14-1318 authorizes the owner, San Angelo Water Supply Corporation, to maintain a dam and reservoir on the Middle Concho River, South Concho River, and Spring Creek, tributaries of the Colorado River, Colorado River Basin, Tom Green County, and to impound therein not to exceed 170,000 acre-feet of water.

Certificate of Adjudication No. 14-1318 also authorizes the owner to divert and use not to exceed 29,000 acre-feet of water per year from the reservoir for municipal purposes and an additional 25,000 acre-feet of water per year from the reservoir for agricultural purposes to irrigate a maximum of 15,000 acres of land within the boundaries of the Tom Green County Water Control and Improvement District No. 1. The maximum combined diversion rate at Diversion Point No. 1 is 270 cfs, 150 cfs of that being for agricultural (irrigation) purposes and 120 cfs being for municipal purposes. The maximum diversion rate for Diversion Point No. 2 is 120 cfs. Several special conditions apply.

Special Condition 5C currently states "A conduit shall be constructed in the aforesaid dam with the inlet at elevation 1883.5 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate for the purpose of permitting the free passage of the normal flow through the dam at all times and the passage of those waters to which the Department may determine lower appropriators are entitled."

San Angelo Water Supply Corporation has a concurrent application, Application No. 14-1318B, to amend Special Condition 5C to modify the elevation referenced for the inlet to the conduit through the dam from 1,883.5 feet above mean sea level to the actual built elevation of 1,885.0 feet above mean sea level. The Commission will review Application No. 14-1318B as submitted by the applicant and may or may not grant that application as requested.

San Angelo Water Supply Corporation, applicant, now seeks an amendment to Certificate of Adjudication No. 14-1318, referred to as Application No. 14-1318C, to further modify Special Condition 5C.

On December 5, 2005, the applicant requested that the original proposed language for Special Condition 5C be revised. The original proposed language reads as follows:

A conduit shall be constructed in the aforesaid dam with the inlet at elevation 1885 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate for the

purpose of being able to permit the passage of normal flow, as that term may be scientifically defined, through the dam at such times as needed to meet the calls of senior water right holders downstream.

The applicant now proposes the modified language for Special Condition 5C read as follows:

A conduit shall be constructed in the aforementioned dam with the inlet at elevation 1885.0 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate. Certificate holder shall permit and provide for the free passage of inflows to Twin Buttes Reservoir through the conduit in amounts to which lower appropriators are entitled as determined by the Watermaster or the commission based on streamflow gages located on upstream watercourses that the Watermaster or the commission considers appropriate for making such determinations.

The Commission will review the application as submitted by the applicant and may or may not grant the application as requested.

The Commission may make other modifications to Special Condition 5C or eliminate Special Condition 5C altogether.

The application was received on March 30, 2005. Additional fees and information were received on June 27, 30, and December 5, 2005. The original notice was issued on August 25, 2005. **The amended application was declared administratively complete and filed with the Office of the Chief Clerk on April 5, 2006.** The Executive Director has not completed its technical review of the application.

PUBLIC COMMENT / PUBLIC MEETING. Written public comments and requests for a public meeting should be received in 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 of the date of newspaper publication of the notice. The Executive Director may approve the application unless a written request for a contested case hearing is filed.

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 to 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 TCEQ 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. For information concerning the hearing process, please contact the Public Interest Counsel, MC 103, the same address. For additional information, individual members of the general public may contact the Office of Public Assistance at 1-800-687-4040. General information regarding the TCEQ can be found at our web site at www.tceq.state.tx.us. Si desea información en Español, puede llamar al 1-800-687-4040.

Issued: April 18, 2006

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF AN APPLICATION TO AMEND A CERTIFICATE OF ADJUDICATION

APPLICATION NO. 14-1318C

San Angelo Water Supply Corporation has applied for an amendment to Certificate of Adjudication No. 14-1318 to modify Special Condition 5C of the original Certificate in the Colorado River Basin, Tom Green County. More information on the application and how to participate in the permitting process is given below.

APPLICATION. San Angelo Water Supply Corporation, P.O. Box 1928, San Angelo, Texas 76902, applicant, has applied to the Texas Commission on Environmental Quality (TCEQ) for an amendment to a Certificate of Adjudication pursuant to §§11.122 and 11.042, Texas Water Code, and Texas Commission on Environmental Quality Rules 30 Texas Administrative Code (TAC) §295.1, *et seq.* Notice of the application is being published and mailed pursuant to 30 TAC §295.158(b) to the 936 downstream water right holders of record in the Colorado River Basin.

Certificate of Adjudication No. 14-1318 authorizes the owner, San Angelo Water Supply Corporation, to maintain a dam and reservoir on the Middle Concho River, South Concho River, and Spring Creek, tributaries of the Colorado River, Colorado River Basin, Tom Green County, and to impound therein not to exceed 170,000 acre-feet of water.

Certificate of Adjudication No. 14-1318 also authorizes the owner to divert and use not to exceed 29,000 acre-feet of water per year from the reservoir for municipal purposes and an additional 25,000 acre-feet of water per year from the reservoir for agricultural purposes to irrigate a maximum of 15,000 acres of land within the boundaries of the Tom Green County Water Control and Improvement District No. 1. The maximum combined diversion rate at Diversion Point No. 1 is 270 cfs, 150 cfs of that being for agricultural (irrigation) purposes and 120 cfs being for municipal purposes. The maximum diversion rate for Diversion Point No. 2 is 120 cfs. Several special conditions apply.

Special Condition 5C currently states "A conduit shall be constructed in the aforesaid dam with the inlet at elevation 1883.5 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate for the purpose of permitting the free passage of the normal flow through the dam at all times and the passage of those waters to which the Department may determine lower appropriators are entitled."

San Angelo Water Supply Corporation has a concurrent application, Application No. 14-1318B, to amend Special Condition 5C to modify the elevation referenced for the inlet to the conduit through the dam from 1,883.5 feet above mean sea level to the actual built elevation of 1,885.0 feet above mean sea level, to add an additional diversion point on the south end of the Twin Buttes Dam on the South Concho River, use the bed and banks of the South Concho River between the Twin Buttes Dam and Lake Nasworthy, and subsequently impound that water in Lake Nasworthy for authorized diversion and use. The Commission will review Application No. 14-1318B as submitted by the applicant and may or may not grant that application as requested.

San Angelo Water Supply Corporation, applicant, now seeks an amendment to Certificate of Adjudication No. 14-1318, referred to as Application No. 14-1318C, to modify Special Condition 5C to read as follows:

A conduit shall be constructed in the aforesaid dam with the inlet at elevation 1885 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate for the purpose of being able to permit the passage of normal flow, as that term may be scientifically defined, through the dam at such times as needed to meet the calls of senior water right holders downstream.

The Commission will review the application as submitted by the applicant and may or may not grant the application as requested.

The application was received on March 30, 2005. Additional fees and information were received on June 27 and 30, 2005. The application was declared administratively complete and filed with the Office of the Chief Clerk on July 12, 2005.

PUBLIC COMMENT / PUBLIC MEETING. Written public comments and requests for a public meeting should be received in 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 of the date of newspaper publication of the notice. The Executive Director may approve the application unless a written request for a contested case hearing is filed.

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 to 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 TCEQ 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. For information concerning the hearing process, please contact the Public Interest Counsel, MC 103, the same address. For additional information, individual members of the general public may contact the Office of Public Assistance at 1-800-687-4040. General information regarding the TCEQ can be found at our web site at www.tceq.state.tx.us. Si desea información en Español, puede llamar al 1-800-687-4040.

Issued: August 25, 2005

WHEREAS, the Commission has complied with the requirements of the Texas Water Code and Rules of the Texas Natural Resource Conservation Commission in issuing this amendment.

NOW, THEREFORE, this amendment to Certificate of Adjudication No. 14-1318 is issued to the San Angelo Water Supply Corporation, subject to the following terms and conditions:

1. In lieu of the authorization included in the certificate for the San Angelo Water Supply Corporation to divert and use not to exceed 25,000 acre-feet of water per annum from Twin Buttes Reservoir for the irrigation of 10,000 acres of land within the boundaries of Tom Green County Water Control and Improvement District No. One, the owner is authorized to use this water for the irrigation of 15,000 acres of land within the District's boundaries.
2. Special Condition 3.B. of the certificate, which requires the return to the Concho River of municipal water diverted from the reservoir for use by the City of San Angelo but not consumed, is hereby deleted.

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

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

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

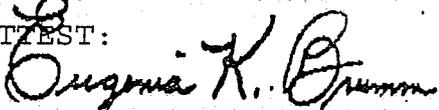
This amendment is issued subject to the Rules of the Texas Natural Resource Conservation Commission and to the right of continuing supervision of State water resources exercised by the Commission.

TEXAS NATURAL RESOURCE
CONSERVATION COMMISSION



For the Commission

DATE ISSUED: MAY 9 1997

ATTEST:


Eugenia K. Brumm, Chief Clerk

CERTIFICATE OF ADJUDICATION

CERTIFICATE OF ADJUDICATION: 14-1318 OWNER: San Angelo Water
Supply Corporation
P. O. Box 1928
San Angelo, Texas 76902

COUNTY: Tom Green PRIORITY DATE: May 6, 1959

WATERCOURSE: Middle Concho River BASIN: Colorado River
South Concho River
and Spring Creek

WHEREAS, by final decree of the 51st District Court of Tom Green County, in Cause No. 44,900-A, In Re: The Adjudication of Water Rights in the Concho River Segment of the Colorado River Basin, dated June 14, 1979, a right was recognized under Permit 1949, authorizing the San Angelo Water Supply Corp. to appropriate waters of the State of Texas as set forth below;

NOW, THEREFORE, this certificate of adjudication to appropriate waters of the State of Texas in the Colorado River Basin is issued to the San Angelo Water Supply Corp., subject to the following terms and conditions:

1. IMPOUNDMENT

Owner is authorized to maintain an existing dam and reservoir on the Middle Concho River, Spring Creek and the South Concho River and impound therein not to exceed 170,000 acre-feet of water. Point on the dam at the center of the Middle Concho River is S 89° 30' W, 7150 feet from the southeast corner of the Valentine Kaerner Survey 183, Abstract 1551, Tom Green County, Texas.

2. USE

- A. Owner is authorized to divert and use not to exceed 29,000 acre-feet of water per annum from the aforesaid reservoir for municipal purposes. However, the 29,000 acre-feet herein authorized includes the 25,000 acre-feet authorized for municipal and industrial purposes under Certificate of Adjudication 14-1319.
- B. Owner is also authorized to divert and use not to exceed an additional 25,000 acre-feet of water per annum from the aforesaid reservoir to irrigate a maximum of 10,000 acres of land within the boundaries of the Tom Green County WCID No. 1.

3. DIVERSION

A. Location:

- (1) At the outlet works of Twin Buttes Reservoir which is N 77° W, 8160 feet from the southeast corner of the Valentine Kaerner Survey 183, Abstract 1551, Tom Green County, Texas.
- (2) At the headgate structure located near the south end of the dam authorized by Certificate of Adjudication 14-1319, which is N 64° W, 3215 feet from the southeast corner of the J. F. Fuchs Survey 172, Abstract 204, Tom Green County, Texas.

B. Rate:

Maximum combined diversion rate at diversion point 1 is 270 cfs (150 cfs-irrigation and 120 cfs-municipal). Maximum diversion rate at diversion point 2 is 120 cfs.

4. PRIORITY

The time priority of owner's right is May 6, 1959.

5. SPECIAL CONDITIONS

- A. Owner shall be limited to storage in and diversion from the aforesaid reservoir below elevation 1940.2 feet above mean sea level (top of conservation pool).
- B. All water hereunder for use through the municipal water system of the City of San Angelo except that which escapes or is consumed as a consequence of the reasonable and beneficial use thereof shall forthwith be discharged into the Concho River at the surplus water return points, the location of which with reference to the corner of an original land grant or survey shall be filed with and approved by the Department. Prior to discharging such return water into the Concho River, owner shall use reasonable diligence to treat and purify such return water so as not to materially impair the quality of the water of the receiving stream.
- 1835 → C. A conduit shall be constructed in the aforesaid dam with the inlet at elevation 1883.5 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate for the purpose of permitting the free passage of the normal flow through the dam at all times and the passage of those waters to which the Department may determine lower appropriators are entitled.
- D. Owner is authorized to use the bed and banks of the Middle Concho River to convey and deliver water to be appropriated hereunder to Nasworthy Reservoir. The waters herein appropriated for municipal use shall be released through the existing gate structure of Nasworthy Dam and owner is authorized to use the bed and banks of the South Concho River below Nasworthy Dam to convey and deliver said water to the point of diversion at the existing intake and pumping facilities of the City of San Angelo. The waters herein appropriated for irrigation use shall be released through Nasworthy Dam by means of a headgate structure to be located near the south end of said dam for the point of diversion of irrigation water.
- E. All waters diverted for irrigation use hereunder except that which escapes or is consumed as a reasonable and beneficial use thereof and in the manner specified herein shall forthwith be discharged at the four following surplus water return points:
- (1) At a point located N 24° 30' E, 2035 feet from the Southwest corner of the Heinrich Falter Survey 140, Abstract 198, Tom Green County, Texas;
 - (2) At three points located S 65° W, 5280 feet, S, 3365 feet and N 78° 30' E, 5075 feet from the Northwest corner of the A. D. Grigsby Survey 106, Abstract 5885, Tom Green County, Texas.
- F. The owner shall install a metering instrument at each diversion point which will automatically record the total amount of water diverted. The owner shall make determinations of water surface elevations in the herein permitted reservoir and in Nasworthy Reservoir by means of recording gages set to U. S. Geological Survey or U. S. Coast and Geodetic Survey datum, each of which shall be protected by a well house designed for such purposes and the Department shall be furnished complete records of such determinations. Owner shall also relocate, or cause to be relocated, the existing streamflow stations on Spring Creek and Middle Concho River which will be inundated by the reservoir and establish, or cause to be established, recording streamflow stations on Pecan and Dove Creeks. Owner shall maintain daily

records of waters released through the conduit hereinabove required to be constructed in said dam. All streamflow stations shall be set to the same datum described above and the Department shall be furnished complete records of the house, and the streamflow stations and the installation, design and operation thereof shall be subject to approval of the Department.

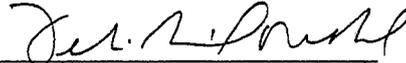
- G. The authorized irrigated area under this certificate shall be coterminous with the boundaries of the Tom Green County WCID No. 1. The owner shall notify the Department of all changes in the boundaries of said District.

The locations of pertinent features related to this certificate are shown on Pages 8 & 9 of the Concho River Certificates of Adjudication Maps, copies of which are located in the offices of the Texas Department of Water Resources and the office of the County Clerk.

This certificate of adjudication is issued subject to all terms, conditions and provisions provided for in the final decree of the 51st District Court of Tom Green County, in Cause No. 44,900-A, In Re: The Adjudication of Water Rights in the Concho River Segment of the Colorado River Basin, dated June 14, 1979, and supersedes all rights of the owner asserted in that cause.

This certificate of adjudication is issued subject to the Rules of the Texas Department of Water Resources and its continuing right of supervision of State water resources consistent with the public policy of the State as set forth in the Texas Water Code.

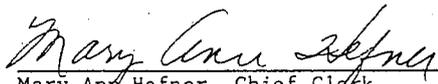
TEXAS WATER COMMISSION


Felix McDonald, Chairman

DATE ISSUED:

March 12, 1980

ATTEST:


Mary Ann Hefner, Chief Clerk

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Craig Mikes, Application Manager **Date:** January 15, 2008
Water Rights Team
Water Rights Permitting & Availability Section

Through: Bill Billingsley, Team Leader *JB* *1/15/08*
Resource Protection Team
Water Rights Permitting & Availability Section

WJG
1-15-08 Wendy Gordon, Ph.D., Aquatic Scientist
Resource Protection Team
Water Rights Permitting & Availability Section

From: Chris Loft, Aquatic Scientist
Resource Protection Team
Water Rights Permitting & Availability Section

Subject: San Angelo Water Supply Corporation
ADJ 1318
CN 601374275
Water Right Application No. 14-1318C
Twin Buttes Reservoir, Colorado River Basin
Tom Green 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 TCEQ administrative rules which include 30 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 ADDENDUM

Certificate of Adjudication 14-1318 authorizes the owner to maintain a dam and reservoir (Twin Buttes Reservoir) on the Middle Concho River, South Concho River, and Spring Creek, tributaries of the Colorado River, Colorado River Basin, and to impound therein up to 170,000 acre-feet of water. The owner is authorized to divert and use up to 29,000 acre-feet of water per year for municipal purposes and 25,000 acre-feet of water per year for agricultural purposes.

Special Condition 5C states, "A conduit shall be constructed in the aforesaid dam with the inlet at

elevation 1,883.5 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate for the purpose of permitting the free passage of normal flow through the dam at all times and the passage of those waters to which the Department may determine lower appropriators are entitled.”

Applicant seeks to amend the certificate to modify the language in Special Condition 5C to the following, “A conduit shall be constructed in the aforementioned dam with the inlet at elevation 1885.0 feet mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate. Certificate holder shall permit and provide for the passage of inflows to Twin Buttes Reservoir through the conduit in amounts to which lower appropriators are entitled as determined by the Watermaster or the Commission.” The applicant points out that there is no accepted scientific definition of “normal flows” and wishes to clarify the language in the special condition.

In the January 9, 2007 environmental analysis memo, Resource Protection staff recommended the following special condition:

In order to provide sufficient flows for the maintenance of instream uses of the Concho River, the permittee shall pass all inflows into Twin Buttes Reservoir necessary to maintain streamflow at USGS Gage 08136000 to equal or exceed the following instantaneous values in cubic feet per second on a monthly basis:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.3	1.5	2.5	2.0	3.5	3.5	2.5	2.0	2.5	2.0	2.0	1.5

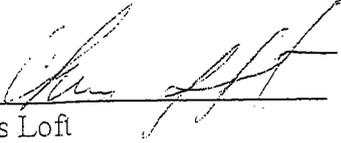
However, during a June 21, 2007 meeting the applicant requested that the outlet of Lake Nasworthy Dam be used as the reference location for streamflow restrictions. Resource Protection staff recalculated streamflow restrictions for Lake Nasworthy using a drainage area ratio of 0.66 and have subsequently modified the special Condition as follows:

In order to provide sufficient flows for the maintenance of instream uses, the permittee shall pass all inflows into Twin Buttes Reservoir necessary to maintain streamflow at the Lake Nasworthy dam outlet equal to or exceeding the following values in cubic feet per second:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0.9	1.0	1.7	1.3	2.3	2.3	1.7	1.3	1.7	1.3	1.3	1.0

All other analyses and recommendations in the January 9, 2007 environmental memorandum remain unchanged unless specifically addressed in this addendum.

San Angelo Water Supply Corporation, ADJ 1318C
Page 3 of 3
January 15, 2008

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

Chris Loft
Resource Protection Team

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Craig Mikes
Water Rights Permitting Team

January 16, 2008

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

From: Stephen Densmore
Surface Water Availability & Interstate Compacts Team

Subject: Addendum to San Angelo Water Supply Corp.
Application 14-1318C
CN601374275
Middle Concho,
Colorado River Basin
Tom Green County

WATER AVAILABILITY ANALYSIS ADDENDUM

San Angelo Water Supply Corporation has supplied refinements and modifications to the method for determining total inflow into Twin Buttes Reservoir. The modified method would use an additional USGS gage (08131400) Pecan Creek near San Angelo, Texas. Total flow would be computed using the following formula:

$$\text{Total flow} = \text{flow at 0812800} + \text{flow at 08128400} * 1.068 + \text{flow at 08130700} + \text{flow at 08121400} * 1.320$$

In addition, the applicant included permit 14-1318C in the *City of San Angelo Water Rights Accounting Plan*. Staff reviewed the *City of San Angelo Water Rights Accounting Plan* and found it acceptable.

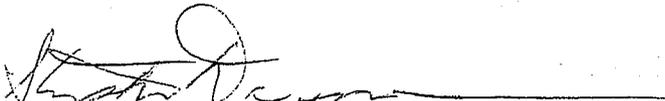
Conclusion

Staff can recommend granting the amendment to Certificate of Adjudication 14-1318C if the formula shown above is used to determine total flow at Twin Buttes dam and the owner provides for the free passage of inflows into Twin Buttes Reservoir in amounts determined by the Watermaster.

Staff also recommends the following special condition:

1. Owner ensures that the USGS stream gages used in the formula to determine the flow into Twin Buttes Reservoir be maintained.
2. Owner shall only store water in accordance with the *City of San Angelo Water Rights Accounting Plan*. Any future changes to this accounting plan must be approved by the Executive Director. Owner shall maintain electronic records (in spreadsheet or database format) of the accounting plan and shall submit them to the Executive Director upon request.

The amendment would be subject to the rules and decisions of the South Texas (Concho River) Watermaster.



Stephen Densmore

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Craig Mikes, Application Manager
Water Rights Team

Date: January 9, 2007

Through: Bill Billingsley, Team Leader
Resource Protection Team *BB 1/9/07*

W.G.
1/9/07 Wendy Gordon, Ph.D., Aquatic Scientist
Resource Protection Team

From: John Botros, Aquatic Scientist *J. Gordon*
Resource Protection Team

Subject: San Angelo Water Supply Corporation
ADJ 1318; CN 601374275
Application 14-1318C to Amend Certificate of Adjudication 14-1318
Twin Buttes Reservoir, Colorado River Basin
Tom Green 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 TCEQ administrative rules which include 30 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.

Application Summary: Certificate of Adjudication 14-1318 authorizes the owner to maintain a dam and reservoir (Twin Buttes Reservoir) on the Middle Concho River, South Concho River, and Spring Creek, tributaries of the Colorado River, Colorado River Basin, and to impound therein up to 170,000 acre-feet of water. The owner is authorized to divert and use up to 29,000 acre-feet of water per year for municipal purposes and 25,000 acre-feet of water per year for agricultural purposes.

Special Condition 5C states, "A conduit shall be constructed in the aforesaid dam with the inlet at elevation 1,883.5 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate for the purpose of permitting the free passage of normal flow through the dam at all times and the passage of those waters to which the Department may determine lower appropriators are entitled."

Applicant seeks to amend the certificate to modify the language in Special Condition 5C to the following, "A conduit shall be constructed in the aforementioned dam with the inlet at elevation 1885.0 feet mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate. Certificate holder shall permit and provide for the passage of inflows to Twin Buttes Reservoir through the conduit in amounts to which lower appropriators are entitled as determined by the Watermaster or the

Commission.” The applicant points out that there is no accepted scientific definition of “normal flows” and wishes to clarify the language in the special condition.

INSTREAM USES

Aquatic and Riparian Habitats: According to the *Handbook of Texas Online*, the Concho River flows for fifty-eight miles through flat and rolling terrain in Tom Green and Concho counties to its confluence with the Colorado River. The surrounding soils are generally dark and calcareous stony clays and loams, dark brown to red brown calcareous sandy clays and loams and red brown to gray brown sandy and clay loams. Vegetation along the river consists of water-tolerant hardwoods and conifers, grasses, scrub brush, creosote bush, cacti, oak, juniper and mesquite. USGS topographic maps show numerous small dams in this reach of the river. According to the Texas Parks and Wildlife Department (TPWD), the Concho water snake (*Nerodia paucimaculata*), a threatened species, is present in Tom Green County. Streamflow, which is strongly correlated with many critical physicochemical characteristics of rivers such as water temperature, channel geomorphology and habitat diversity, can be considered the master variable that limits the distribution and abundance of riverine species and regulates the ecological integrity of flowing water systems (Poff et al 1997). Maintaining the natural flow regime or variability plays a critical role in sustaining native biodiversity and ecosystem integrity in rivers (Poff et al 1997).

TCEQ default methodology for determining flow restrictions is the Lyon’s Method. The Lyon’s method recommends minimum flows of 40% of the median monthly flows for October through February and 60% of the median monthly flows for March through September in order to protect aquatic habitat. This methodology produces flow numbers for each month of the year to mimic natural flow patterns. The nearest active USGS gage (Concho River at San Angelo) is located approximately 1.2 miles downstream of the City of San Angelo’s diversion point. USGS gage 08136000 was used in calculating the monthly medians for the period of record from 1964-2005 and the monthly Lyons Method flow values are presented in Table 1. This period of record was chosen since construction of the dam at Twin Buttes Reservoir was completed February 13, 1963.

Table 1. Monthly Median and Lyon Method Flows (in cfs) at USGS Gage 08136000

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
median	3.1	3.4	4.4	3.4	5.6	5.5	4.2	3.6	4.5	4.5	4.6	3.8
Lyons	1.0	1.5	2.5	2.0	3.5	3.5	2.5	2.0	2.5	2.0	2.0	1.5

Implementation of the recommended flow restrictions as measured at USGS Gage 08136000 should provide sufficient maintenance flows to the aquatic and riparian habitats in the Concho River.

Water Quality: According to the *Atlas of Texas Surface Waters*, Twin Buttes Reservoir is designated as Segment 1423. According to the *Texas Water Quality Inventory and 303(d) List*, the designated uses of Segment 1423 are high aquatic life use, contact recreation, general use, fish consumption and public water supply. The public water supply and general uses are supported. The aquatic life, contact recreation and fish consumption uses were not assessed. Immediately downstream of Twin Buttes reservoir is Lake Nasworthy (Segment 1422); immediately downstream of Lake Nasworthy is Segment 1421 (South Concho and Concho Rivers). The public water supply use is threatened in Segment 1421 due to elevated

levels of sulfate, chloride, nitrate plus nitrite nitrogen, total dissolved solids and excessive algal growth. Increased drinking water treatment costs may result due to the threats to the public water supply use. The aquatic life use is not supported in the upper reaches of this segment. Segment 1421 is on the 2004 303(d) List due to an impaired macrobenthos community.

For determining minimum flows that would sustain water quality, the seven day, two-year low flow (7Q2) is used. The 7Q2 is often considered the lowest allowable flow which provides adequate assimilation of pollutants, and it is the low flow value used in water quality modeling for Texas Pollutant Discharge Elimination System (TPDES) permitting. The 7Q2 is statistically derived from historical daily gaged flow data. The most recent 7Q2 value calculated by the TCEQ for the Concho River at USGS Gage 08136000 is 1.3 cfs for the period of 1975-2003. Since the recommended monthly flow values are greater than the 7Q2 value of 1.3 cfs for all months except for January, adequate water quality maintenance should be provided during these months. However, during the month of January, the monthly flow recommendation is less than the 7Q2 value, and therefore may not provide adequate flow to protect water quality. In order to provide sufficient flow to maintain water quality, diversions during the month of January should be limited to times when streamflow of the Concho River at USGS Gage 08136000 equals or exceeds 1.3 cfs.

Bay and Estuary Freshwater Inflows: Freshwater inflows are critical for maintaining the historical productivity of bays and estuaries along the Gulf Coast. The proposed project is located greater than 200 river miles from the Gulf of Mexico. The proposed amendment should have minimal impact to the Colorado River's estuary system.

Recreational Uses: According to the TPWD publication, *An Analysis of Texas Waterways*, the upper section of the Concho River downstream of San Angelo is scenic, containing high steep banks lined with elm, willow and mesquite. In this section the river is narrow and shallow, yet a minimum amount of water for recreational use is available at all times. Flow is largely regulated by three major reservoirs located on the three upper forks of the Concho. The Concho River flows predominately through rolling hills and semi-arid ranch and farm land. The proposed amendment to the certificate should have negligible impacts to the recreational uses of the river.

Summary and Conclusions: Applicant seeks to amend Certificate of Adjudication 14-1318 to modify the language in Special Condition 5C to the following, "A conduit shall be constructed in the aforementioned dam with the inlet at elevation 1885.0 feet mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate. Certificate holder shall permit and provide for the passage of inflows to Twin Buttes Reservoir through the conduit in amounts to which lower appropriators are entitled as determined by the Watermaster or the Commission."

The applicant seeks to modify the language in the special condition in order to be required to release water from the reservoir only when required to do so by the Watermaster or the Commission. The final decree authorizing Certificate of Adjudication 14-1318 states, "the permittee shall store only storm and flood water of said stream [Middle Concho], subject to all the rights of prior appropriators and lawful diverters below." Special Condition 5C also contains the language, "...passage of normal flow through the dam at all times." Although staff agrees with the applicant that there is no accepted scientific definition of "normal flow," the phrase "at all times" is significant for providing the flows necessary for

maintenance of instream uses of the Concho River that the applicant's proposed language does not necessarily provide. Therefore, it is staff's opinion that the applicant's request constitutes a potential new environmental impact due to extended periods of a lack of or reductions in streamflow downstream of Twin Buttes Reservoir, and flow restrictions to maintain the instream uses of the Concho River downstream of the City of San Angelo's diversion point are warranted for this amendment.

Resource Protection staff recommends the following special condition be adopted into the proposed amendment to Certificate of Adjudication 14-1318:

1. In order to provide sufficient flows for the maintenance of instream uses of the Concho River, the permittee shall pass all inflows into Twin Buttes Reservoir necessary to maintain streamflow at USGS Gage 08136000 to equal or exceed the following instantaneous values in cubic feet per second on a monthly basis:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.3	1.5	2.5	2.0	3.5	3.5	2.5	2.0	2.5	2.0	2.0	1.5

This instream use assessment was conducted using current TCEQ operation procedures and policies and available data and information. The recommendations in this environmental analysis are intended for the protection of instream uses and do not necessarily provide protection to downstream water rights; that analysis is addressed in the hydrology memo and further restrictions may be applicable as necessary. 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

Poff, N.L., J.D. Allan, M.B. Bain, J.R. Karr, K.L. Pretegaard, B.D. Richter, R.E. Sparks, and J.C. Stromberg. 1997. The Natural Flow Regime. *Bioscience* 47:769-784.

TCEQ. 2004. 2004 Texas Water Quality Inventory and 303(d) List. Texas Commission on Environmental Quality.

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.

TPWD. 1979. An Analysis of Texas Waterways. Texas Parks and Wildlife Department.

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Craig Mikes
Water Rights Permitting Team

January 11, 2007

Through: ^{AP} Lann Bookout, Team Leader
Surface Water Availability & Interstate Compacts Team

From: Stephen Densmore
Surface Water Availability & Interstate Compacts Team

Subject: San Angelo Water Supply Corp.
Application 14-1318C
CN601374275
Middle Concho,
Colorado River Basin
Tom Green County

WATER AVAILABILITY ANALYSIS

Application Summary

Certificate of Adjudication No. 14-1318 authorizes the owner, San Angelo Water Supply Corporation, to maintain a dam and reservoir (Twin Buttes) on the Middle Concho River, South Concho River, and Spring Creek, tributaries of the Colorado River, Colorado River Basin, and to impound therein not to exceed 170,000 acre-feet of water. The certificate also authorizes the owner to divert and use not to exceed 29,000 acre-feet of water from the reservoir for municipal purposes and an additional 25,000 acre-feet from the reservoir for agricultural purposes to irrigate a maximum of 15,000 acres of land within the boundaries of the Tom Green County Water Control and Improvement District (WCID) No. 1. Special Condition 5C of the certificate states that "a conduit shall be constructed in the aforesaid dam with the inlet at elevation 1883.5 feet above mean sea level, having an opening of not less than five feet in diameter and equipped with a regulating gate for the purpose of permitting the free passage of the normal flow through the dam at all times and the passage of those water to which the Department may determine lower appropriators are entitled".

San Angelo Water Supply Corporation has applied for an amendment to Certificate of Adjudication No. 14-1318 (14-1318C) to modify Special Condition 5C of the original Certificate by removing "the free passage of the normal flow" clause and replacing it with the following:

A conduit shall be constructed in the aforementioned dam with the inlet at elevation 1885.0 feet above mean sea level, having an opening of not less than five feet in diameter

and equipped with a regulating gate. Certificate holder shall permit and provide for the free passage of inflows to Twin Buttes Reservoir through the conduit in amounts to which lower appropriators are entitled to as determined by the Watermaster or the Commission based on streamflow gages located on upstream watercourses that the Watermaster or the Commission considers appropriate for making such determinations.

The application was declared administratively complete and filed with the Office of the Chief Clerk on April 5, 2006.

Water Availability Analysis

No water availability analysis was conducted for this application, staff did conduct an analysis to determine the location and availability of streamflow gages to determine the flow at Twin Buttes Reservoir. At the present time, the U. S. Geological Survey (USGS) maintains gages on the Middle and South Concho Rivers and Spring Creek that report daily mean flow. These gages would reflect the flow originating from 2097 square miles of the 2813 square miles of contributing drainage above Twin Buttes. Table 1 list the gage number, gage name, and contributing drainage area for each gage. Figure 1 shows the location of the gages.

Table 1

Gage	Name	Drainage Area (sq miles)
08128000	S Concho @ Christoval	354
08128400	M Concho above Tankersley	1116
08130700	Spring Creek above Twin Buttes	627
Total		2097

The applicant has requested that the "normal flow" clause be removed due to the fact that there is no hydrological definition of "normal flow". Normal flow or line of highest ordinary flow has been legally defined as "flows at or below the highest line of flow which the stream reaches and maintains for a sufficient length of time to become characteristic when its waters are in their ordinary, normal, and usual condition, uninfluenced by recent rainfall or surface run-off".¹ Texas Commission on Environmental Quality rules also refer to normal flow as baseflow.² However, baseflow can change over time because of land use practices and groundwater pumpage. It has been reported that, in this area, the lack of an effective brush control program and increases in groundwater pumpage have affected the baseflow and that the Middle Concho River above Twin

¹ Motl v. Boyd 116 Tex. 82, 286 S.W. 458

² 30 TAC §297.1

Buttes Reservoir and Spring Creek are now non-perennial.³ Staff conducted an analysis of the last four years of record of the USGS gages above Twin Buttes, which monitors 74.5% of the drainage area of Twin Buttes, to try to determine the "normal flow". Figures 2 through 4 display the daily flows at the three gages for the period January 1, 2002 through December 31, 2005. The results of the analysis are shown in Table 2. Based on the analysis and review of reports on flow conditions staff could not determine what "normal flow" would be. However, staff is of the opinion that these gages could be used to aid the Commission or the Watermaster in determining what inflows would need to be passed for downstream water rights.

Table 2

Gage	08128000	08128400	08130700
Median Flow (CFS)	9.1	0	1.7
Average Flow (CFS)	18.3	5.4	10.5
Mode (CFS)	16	0	0
25 th Percentile (CFS)	5.7	0	0
Baseflow (CFS)	0.10	0	0
No. Days of Zero Flow	0	1028	532
No. Years of Zero Flow	0	3	3
90 Day Minimum Flow (CFS)	2.76	0	0
90 Day Maximum Flow (CFS)	81	64	49.2

Conclusion

Staff can recommend granting of the amendment to the Certificate of Adjudication if a method of determining total flow at Twin Buttes dam is developed that includes the daily mean flow from USGS gages 0812800, 08128400, and 08130700 and the owner provides for the free passage of inflows into Twin Buttes Reservoir in amounts to as determined by the Watermaster.

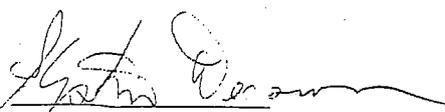
Total flow could be computed using the following formula:

$$\text{Total flow} = \text{flow at 0812800} + \text{flow at 08128400} * 1.6415 + \text{flow at 08130700} + \text{diversions below gages to Twin Buttes} + \text{diversions above gages}$$

Staff also recommends the following special condition:

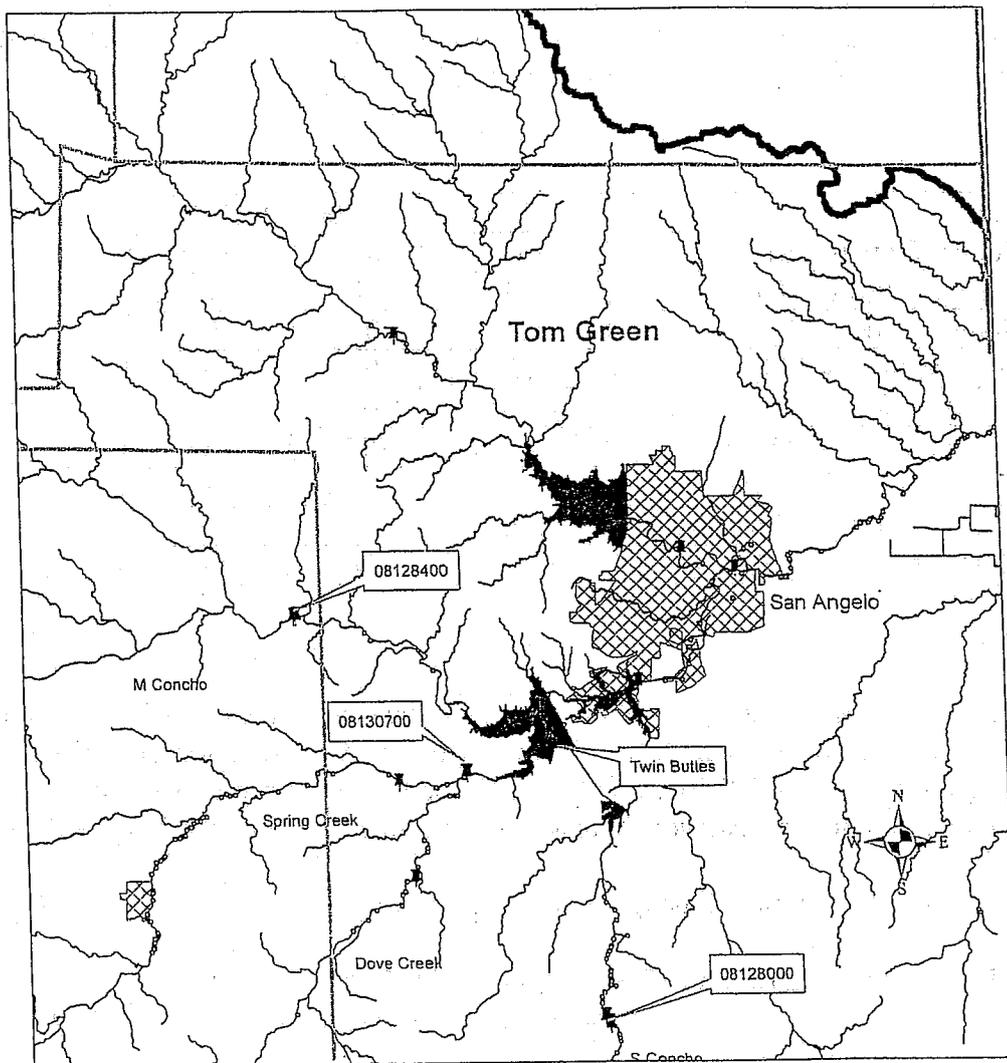
1. The owner ensures that the three USGS stream gages used in determining the flow into Twin Buttes Reservoir be maintained.

The amendment would be subject to the rules and decisions of the South Texas (Concho River) Watermaster.


Stephen Densmore

³ Concho River and Upper Colorado River Basins Brush Control Feasibility Study, Upper Colorado River Authority, December 2000

USGS Gages for Application 14-1318C



Legend

- Water Rights
- County
- ▨ Cities
- ▭ Concho Basin
- Streams
- USGS Gage

Figure 2. 8128000 S Concho

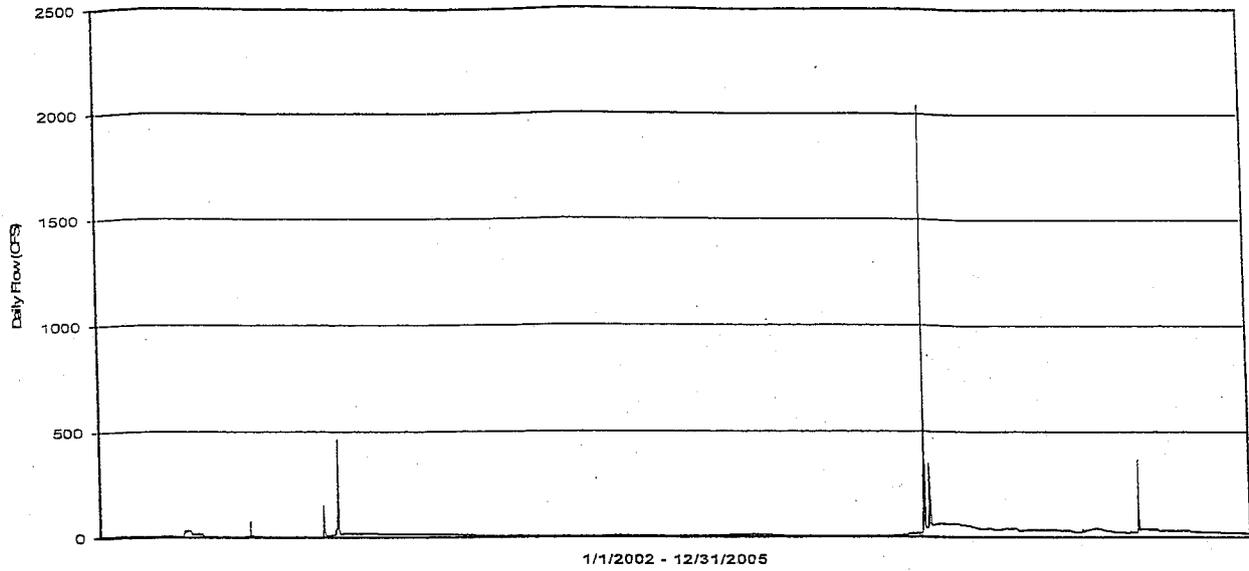


Figure 3. 8128400 M Concho

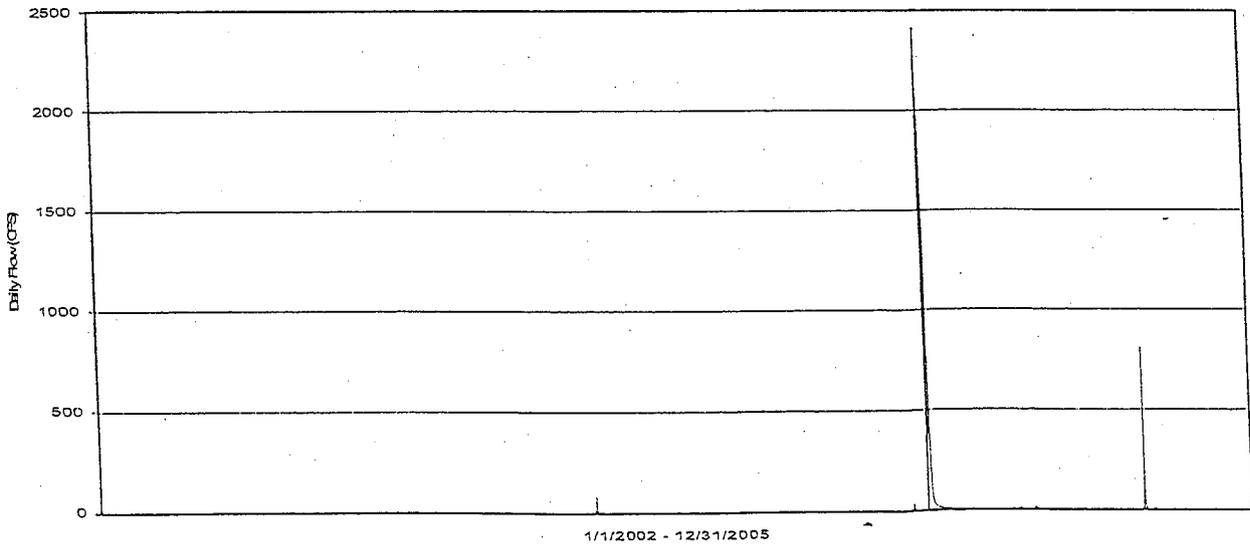
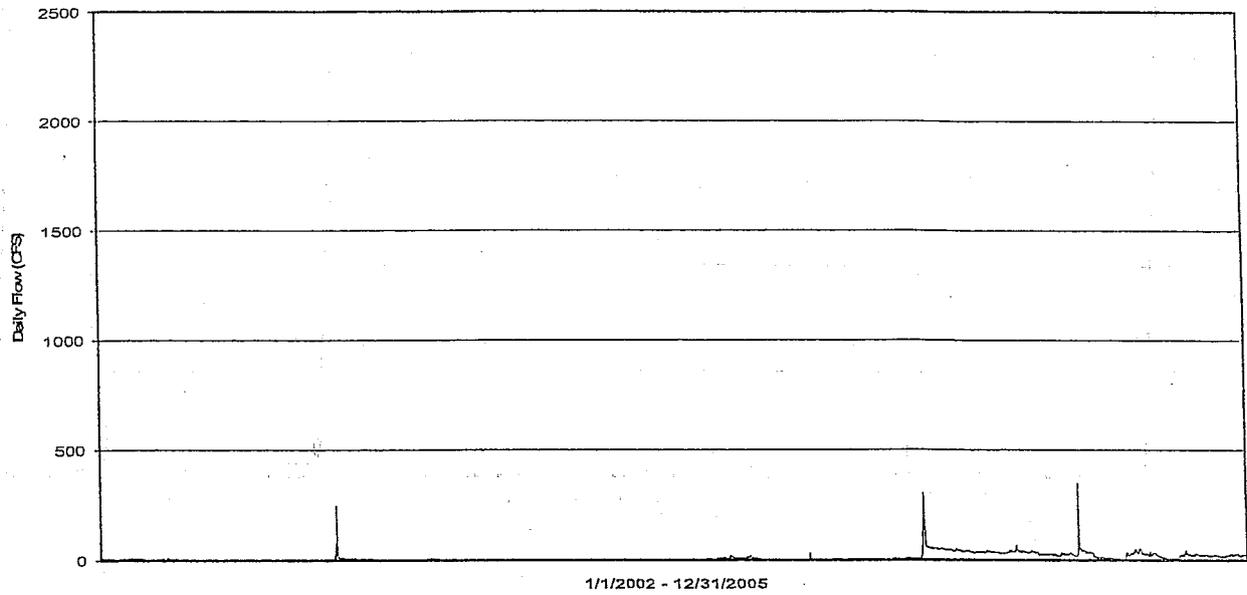


Figure 4 8130700 Spring Creek



Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Craig Mikes, Project Manager
Water Rights Permitting Team
Water Supply Division

Date: April 15, 2004

Thru: Bill Billingsley, Team Leader
Resource Protection Team
Water Supply Division

BB 4/18/05

Thru: Kristin Wang, Senior Water Conservation Specialist
Resource Protection Team
Water Supply Division

KW 4/15/05

From: E. Scott Swanson, Water Conservation Specialist
Resource Protection Team
Water Supply Division

ESS 4/19/05

Subject: San Angelo WSC
WR 1318
CN601374275
Review of Water Conservation and Drought Contingency Plan for Administrative Completeness.

COA No. 14-1318 authorizes owner to maintain a dam and reservoir on the Middle Concho River, Colorado River Basin, and to impound therein not to exceed 170,000 acre-feet of water.

Applicant seeks to amend COA 14-1318 to modify Special Condition 5C to change the language clarifying that normal stream flow will be passed through the dam only when called upon to meet the calls of senior water right holders downstream.

Because San Angelo WSC and the City of San Angelo are cross listed in the Certificate, it was determined that the City of San Angelo's Water Conservation and Drought Contingency Plan would serve in meeting the requirements. The water conservation and drought contingency plan for the City of San Angelo was reviewed and found to meet the minimum requirements as defined in Title 30, Texas Administrative Code Chapter 288.

The applicant's request is not inconsistent with the approved 2002 State Water Plan and the January 2001 Region "F" Water Plan.

The following standard water conservation language should be included in the permit:

"Owners 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 wholesale water contract entered into, on or after the effective date of this amendment, 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 must have water conservation requirements so that each successive wholesale customer in the resale of the water be required to implement water conservation measures."

No further review is required by the Water Conservation Staff of the Resource Protection Team.