

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
INTEROFFICE MEMORANDUM

TO: Chief Clerk

THRU:  Iliana Delgado, Acting Team Leader
Water Rights Permitting Team

FROM: Craig Mikes, Project Manager
Water Rights Permitting Team

SUBJECT: TXU Mining Company LP
Docket # 2007-1138-WR
WRPERM 5931
CN602518169
RN105033641, RN105033682, RN105033708, RN105033740, RN105033757,
RN105033765, RN105033831, RN105033963, RN105034060, RN105034185,
RN105033799, RN105033880, RN105033989, RN105034110, RN105034169
Application No. 5931 for a Water Use Permit
TWC §11.121, Requiring Mailed and Published Notice
Unnamed tributary of Willow Creek, Willow Creek, White Branch, unnamed
tributaries of Steele Creek, and Steele Creek, Brazos River Basin
Limestone and Robertson Counties

DATE: January 4, 2008

TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY

2008 JAN - 7 AM 10:24

CHIEF CLERKS OFFICE

An application was received from TXU Mining Company LP seeking a water use permit pursuant to Texas Water Code §11.121 and Texas Commission on Environmental Quality Rules 30 TAC §§295.1, *et seq.*

The application was received on December 9, 2005. The application was declared administratively complete and filed with the Office of the Chief Clerk on September 14, 2006. The notice of the application was filed with the Chief Clerk on November 3, 2006, and notice was subsequently published and mailed to the water right holders in the Brazos River Basin. Three requests for a public hearing were originally received. One request for a public hearing has been withdrawn.

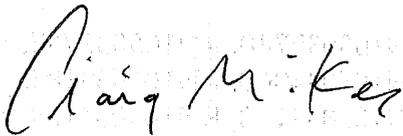
Because this application was declared administratively complete after September 1, 1999, the rules in Chapter 55, Subchapter G, Section 55.250 - 55.256 apply. The Chief Clerk shall mail notice to the applicant, executive director, public interest counsel, and timely hearing requestors not later than 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. Therefore, we request that the application be set on the February 13, 2008 Commission's Contested agenda.

Below is the caption for this application:

Consideration of an application by TXU Mining Company LP to construct and maintain five reservoirs which will impound a combined total of 1,792.10 acre feet of water for mining purposes, and to divert not to exceed 1,000 acre feet of water per year for mining purposes from or upstream of the reservoirs for use within the Willow/Heads Creek Watershed in the Kosse Lignite Mining Area in Limestone and Robertson Counties, through the year 2027 or with the cessation of mining activities. After 2027 or the cessation of mining activities, the reservoirs will remain for domestic and livestock use only. The reservoirs are on Head Creek, unnamed tributaries of Willow Creek, or unnamed tributaries of Steele Creek, which is a tributary of the Navasota River, Brazos River, Brazos River Basin, and are located approximately 9 to 11 miles southeast and northeast of the town of Kosse. The Commission will consider the application, hearing requests, and any other filings.

Attached is a draft notice for you to send.



Craig Mikes, Project Manager
Water Rights Permitting Team

Enclosure

- cc: Kellye Rila, TCEQ
- Lann Bookout, TCEQ
- Bill Billingsley, TCEQ
- Kristin Wang, TCEQ
- Chris Loft, TCEQ
- Robin Smith, TCEQ
- Ivan Ortiz, TCEQ

DOCKET No. 2007-1138-WR

TXU MINING COMPANY, L.P. - APPLICATION No. 5931

Generalized Location of Kosse Lignite Mining Area showing TXU's Five Proposed Reservoirs as Referenced in Application No. 5931

Pond D-5
Pond D-6
Pond D-7
Pond D-8
Pond D-9

LAKE LIMESTONE

LIMESTONE COUNTY
ROBERTSON COUNTY

BRA - 5165

**Kosse Lignite Mining Area
TXU Application No. 5931**



10 5 0 10 20 30 40 50 Miles

Applicant

◆ TXU Mining Company, L.P.
(Kosse Lignite Mining Area)
Application No. 5931

Protestants

☆ Brazos River Authority (BRA)
◆ Dow Chemical Company



LOCATION OF
LIMESTONE COUNTY,
BRAZOS RIVER BASIN

Gulf of Mexico

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF APPLICATION FOR A WATER USE PERMIT

APPLICATION NO. 5931

SUMMARY. TXU Mining Company LP has applied for a Water Use Permit to divert and use not to exceed 1,000 acre-feet of water per year at or upstream of five (5) diversion points located on unnamed tributaries of Willow Creek, Heads Creek, and unnamed tributaries of Steele Creek, in the Brazos River Basin, and to construct and maintain five (5) reservoirs for mining purposes within the Willow/Heads Creek Watershed in the Kosse Lignite Mining Area (LMA) in Limestone and Robertson Counties, Texas. More information on the application and how to participate in the permitting process is given below.

APPLICATION. TXU Mining Company LP, 1601 Bryan Street, Dallas, Texas 75201-3411, applicant, has applied to the Texas Commission on Environmental Quality (TCEQ) for a Water Use Permit pursuant to Texas Water Code §11.121 and TCEQ Rules 30 Texas Administrative Code §§295.1, *et seq.* Published and mailed notice of the application is being given to all water right holders of record in the Brazos River Basin pursuant to 30 TAC §295.151.

Applicant seeks authorization to construct and/or maintain five (5) reservoirs impounding a combined total of 1,792.10 acre-feet of water for mining purposes (dust suppression, construction, and miscellaneous mining activities) and will be maintained for domestic and livestock purposes after the cessation of mining activity or through the year 2027. The locations of the on-channel reservoirs are as follows:

- Pond D-5 On an unnamed tributary of Steele Creek, tributary of the Navasota River, tributary of the Brazos River, Brazos River Basin, at Latitude 31.3075°N, Longitude 96.4706°W, bearing N4.2619°W, 50,387 feet from the northwest corner of the Benjamin Earp Survey, Abstract No. A-138, approximately 9.5 miles northeast of the Town of Kosse, Texas, and located in the Charles Roberts Survey, Abstract No. 468, Limestone County, and impounding 146.6 acre-feet of water with a surface area of 8.4 acres of land.

- Pond D-6 On Heads Creek, tributary of Steele Creek, at Latitude 31.3073°N, Longitude 96.4498°W, bearing N21.823°E, 56,865 feet from the northwest corner of the Earp Survey, approximately 10.8 miles northeast

of the Town of Kosse, Texas, and located in the Roberts Survey, Limestone County, and impounding 1,351 acre-feet of water with a surface area of 91.8 acres of land.

Pond D-7 On an unnamed tributary of Steele Creek, at Latitude 31.3100°N, Longitude 96.4371°W, bearing N32.3986°E, 60,833 feet from the northwest corner of the Earp Survey, approximately 11.5 miles northeast of the Town of Kosse, Texas, and located in the G. W. McGrew Survey, Abstract No. 347, Limestone County, and impounding 76.5 acre-feet of water with a surface area of 5.2 acres of land.

Pond D-8 On an unnamed tributary of Willow Creek, tributary of Steele Creek, at Latitude 31.2649°N, Longitude 96.4600°W, bearing S57.0466°E, 55,864 feet from the northwest corner of the Earp Survey, approximately 10.6 miles southeast of the Town of Kosse, Texas, and located in the Earp Survey, Robertson County, and impounding 44.0 acre-feet of water with a surface area of 4.0 acres of land.

Pond D-9 On an unnamed tributary of Willow Creek, at Latitude 31.2618°N, Longitude 96.4672°W, bearing S11.2713°E, 54,066 feet from the northwest corner of the Earp Survey, approximately 10.2 miles southeast of the Town of Kosse, Texas, and located in the Christopher C. Seal Survey, Abstract No. 42, Robertson County, and impounding 174.0 acre-feet of water with a surface area of 9.0 acres of land.

Applicant also seeks authorization to divert and use not to exceed 1,000 acre-feet of water per year for mining purposes (dust suppression, construction, and miscellaneous mining activities) within the Willow/ Heads Creek Watershed in the Kosse LMA in Limestone and Robertson Counties, Texas.

The water will be diverted from multiple diversion points located in the watersheds within the boundary of the Kosse LMA at or upstream of five (5) proposed diversion points at a maximum combined diversion rate not exceed 13.369 cubic-feet-per-second (6,000 gallons-per-minute). The locations of the proposed diversion points are as follows:

1. At the same coordinates as Pond No. D-5.
2. At the same coordinates as Pond No. D-6.
3. At the same coordinates as Pond No. D-7.
4. At the same coordinates as Pond No. D-8.

5. At the same coordinates as Pond No. D-9.

Approximately 1,935 acre-feet of groundwater will be produced as a result of dewatering activities at the mine and pumped into the proposed ponds in order to treat and monitor the water under the TPDES wastewater permit and Railroad Commission of Texas mining permits.

Ownership of the mining rights in TXU Mining Company LP's Willow/ Heads Creek Watershed Portion in the Kosse LMA is held under multiple mining leases and actual Company ownership as evidenced by warranty deeds and leases in the application filed with the Texas Railroad Commission and in the Deed Records of Limestone and Robertson Counties, Texas.

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 December 9, 2005. Additional information and fees were received on March 1, June 1, August 7, September 7, and September 8, 2006. The application was declared administratively complete and filed with the Office of the Chief Clerk on September 14, 2006.

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 in 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. 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: November 3, 2006

DRAFT

PERMIT TO
APPROPRIATE STATE WATER

APPLICATION NO. 5931

WATER USE PERMIT NO. 5931

TYPE §11.121

Owner: TXU Mining Company LP

Address: 1601 Bryan Street
Dallas, Texas 75201-3411

Filed: September 14, 2006

DRAFT

Purpose: Mining, Domestic, and
Livestock

County: Limestone and Robertson

Watercourse: Unnamed tributaries of Steele
Creek, and unnamed tributaries
of Willow Creek and an unnamed
tributary of Heads Creek, tributaries
of Steele Creek, tributary of
the Navasota River, tributary of
the Brazos River

Watershed: Brazos River Basin

WHEREAS, Applicant seeks authorization to construct and/or maintain five (5) reservoirs impounding a combined total of 1,792.10 acre-feet of water for mining purposes (dust suppression, construction, and miscellaneous mining activities) and will be maintained for domestic and livestock purposes following the year 2027 or after the cessation of mining activity; and

WHEREAS, Pond D-5 is located on an unnamed tributary of Steele Creek, tributary of the Navasota River, tributary of the Brazos River, Brazos River Basin, at Latitude 31.3075°N, Longitude 96.4706°W, bearing N4.2619°W, 50,387 feet from the northwest corner of the Benjamin Earp Survey, Abstract No. A-138, approximately 9.5 miles northeast of the Town of Kosse, Texas, and located in the Charles Roberts Survey, Abstract No. 468, Limestone County, and impounding 146.6 acre-feet of water with a surface area of 8.4 acres of land; and

WHEREAS, Pond D-6 is located On Heads Creek, tributary of Steele Creek, at Latitude 31.3073°N, Longitude 96.4498°W, bearing N21.823°E, 56,865 feet from the northwest corner of the Earp Survey, approximately 10.8 miles northeast of the Town of Kosse, Texas, and located in the Roberts Survey, Limestone County, and impounding 1,351 acre-feet of water with a surface area of 91.8 acres of land; and

WHEREAS, Pond D-7 is located on an unnamed tributary of Steele Creek, at Latitude 31.3100°N, Longitude 96.4371°W, bearing N32.3986°E, 60,833 feet from the northwest corner of the Earp Survey, approximately 11.5 miles northeast of the Town of Kosse, Texas, and located in the G. W. McGrew Survey, Abstract No. 347, Limestone County, and impounding 76.5 acre-feet of water with a surface area of 5.2 acres of land; and

WHEREAS, Pond D-8 is located on an unnamed tributary of Willow Creek, tributary of Steele Creek, at Latitude 31.2649°N, Longitude 96.4600°W, bearing S57.0466°E, 55,864 feet from the northwest corner of the Earp Survey, approximately 10.6 miles southeast of the Town of Kosse, Texas, and located in the Earp Survey, Robertson County, and impounding 44.0 acre-feet of water with a surface area of 4.0 acres of land; and

WHEREAS, Pond D-9 is located On an unnamed tributary of Willow Creek, at Latitude 31.2618°N, Longitude 96.4672°W, bearing S11.2713°E, 54,066 feet from the northwest corner of the Earp Survey, approximately 10.2 miles southeast of the Town of Kosse, Texas, and located in the Christopher C. Seal Survey, Abstract No. 42, Robertson County, and impounding 174.0 acre-feet of water with a surface area of 9.0 acres of land; and

WHEREAS, ownership of the mining rights in TXU Mining Company LP's Willow/ Heads Creek Watershed Portion in the Kosse Lignite Mining Area (LMA) is held under multiple mining leases and actual Company ownership as evidenced by warranty deeds and leases in the application filed with the Texas Railroad Commission and in the Deed Records of Limestone and Robertson Counties, Texas; and

WHEREAS, Applicant also seeks authorization to divert and use not to exceed 1,000 acre-feet of water per year for mining purposes (dust suppression, construction, and miscellaneous mining activities) within the Willow/ Heads Creek Watershed in the Kosse LMA in Limestone and Robertson Counties, Texas through the year 2027 or the life of the mine; and

WHEREAS, the water will be diverted from multiple diversion points located in the Willow/ Heads Creek Watershed within the boundary of the Kosse LMA at or upstream of five (5) proposed diversion points at a maximum combined diversion rate not exceed 13.369 cubic-feet-per-second (6,000 gallons-per-minute). The locations of the proposed diversion points are located at or upstream of the same coordinates as the five (5) reservoirs; and

WHEREAS, Applicant indicates that approximately 1,935 acre-feet of groundwater will be produced as a result of dewatering activities at the mine and pumped into the proposed ponds in order to treat and monitor the water under the TPDES wastewater permit and Railroad Commission of Texas mining permits; and

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

WHEREAS, the Executive Director has determined that in order to minimize disturbance and adverse impacts on the environment, special conditions should be included; and

WHEREAS, three requests for a contested case hearing were received; and the Commission has determined that this permit should be issued; and

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

NOW, THEREFORE, Water Use Permit No. 5931 is issued to TXU Mining Company LP subject to the following terms and conditions:

1. IMPOUNDMENTS

Permittee is authorized to construct and/or maintain five (5) reservoirs in the Willow/Heads Creek Watershed within the boundary of the Kosse LMA, impounding a combined total of 1,792.10 acre-feet of water. The five reservoirs are further described as follows:

- A. **Pond D-5** - located on an unnamed tributary of Steele Creek, tributary of the Navasota River, tributary of the Brazos River, Brazos River Basin, at Latitude 31.3075°N, Longitude 96.4706°W, bearing N4.2619°W, 50,387 feet from the northwest corner of the Benjamin Earp Survey, Abstract No. A-138, approximately 9.5 miles northeast of the Town of Kosse, Texas, and located in the Charles Roberts Survey, Abstract No. 468, Limestone County, and impounding 146.6 acre-feet of water with a surface area of 8.4 acres of land.
- B. **Pond D-6** - located on Heads Creek, tributary of Steele Creek, at Latitude 31.3073°N, Longitude 96.4498°W, bearing N21.823°E, 56,865 feet from the northwest corner of the Earp Survey, approximately 10.8 miles northeast of the Town of Kosse, Texas, and located in the Roberts Survey, Limestone County, and impounding 1,351 acre-feet of water with a surface area of 91.8 acres of land.
- C. **Pond D-7** - located on an unnamed tributary of Steele Creek, at Latitude 31.3100°N, Longitude 96.4371°W, bearing N32.3986°E, 60,833 feet from the northwest corner of the Earp Survey, approximately 11.5 miles northeast of the Town of Kosse, Texas, and located in the G. W. McGrew Survey, Abstract No. 347, Limestone County, and impounding 76.5 acre-feet of water with a surface area of 5.2 acres of land.
- D. **Pond D-8** - located on an unnamed tributary of Willow Creek, tributary of Steele Creek, at Latitude 31.2649°N, Longitude 96.4600°W, bearing S57.0466°E, 55,864 feet from the northwest corner of the Earp Survey, approximately 10.6 miles southeast of the Town of Kosse, Texas, and located in the Earp Survey, Robertson County, and impounding 44.0 acre-feet of water with a surface area of 4.0 acres of land.
- E. **Pond D-9** - located on an unnamed tributary of Willow Creek, at Latitude 31.2618°N, Longitude 96.4672°W, bearing S11.2713°E, 54,066 feet from the northwest corner of the Earp Survey, approximately 10.2 miles southeast of the

Town of Kosse, Texas, and located in the Christopher C. Seal Survey, Abstract No. 42, Robertson County, and impounding 174.0 acre-feet of water with a surface area of 9.0 acres of land.

2. USE

- A. Permittee is authorized to divert and use not to exceed 1,000 acre-feet of water per year for mining purposes (dust suppression, construction, and miscellaneous mining activities).
- B. After cessation of mining activities, Permittee is authorized only domestic and livestock purpose of use with no other right of diversion.

3. DIVERSION

A. Location:

Permittee is authorized to divert water from multiple diversion points (DP) located in the Willow/ Heads Creek Watershed within the boundary of the Kosse LMA at or upstream of five (5) proposed diversion points. The locations of the proposed diversion points are as follows:

DP-1 - Located at the same coordinates as Pond No. D-5 above.

DP-2 - Located at the same coordinates as Pond No. D-6 above.

DP-3 - Located at the same coordinates as Pond No. D-7 above.

DP-4 - Located at the same coordinates as Pond No. D-8 above.

DP-5 - Located at the same coordinates as Pond No. D-9 above.

B. Diversion Rate:

Permittee may divert the authorized water at a combined maximum diversion rate of 13.369 cfs (6,000 gpm).

4. CONSERVATION

Permittee shall implement a conservation plan that provides for the utilization of water conservation 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.

5. SPECIAL CONDITIONS

- A. Mining Activities shall not cause dewatering of Steele Creek downstream of the proposed diversion points.
- B. Upon cessation of mining activities, the Permittee shall maintain a 50 foot wide riparian buffer zone of permanent vegetation around the perimeter of the reservoirs located in land use areas designated as fish and wildlife habitat. The buffer zone shall be graded to have a slope of no greater than 5% and planted with native vegetation at a density to ensure compete coverage at maturity. If the land use area surrounding the reservoirs is designated as grassland or pastureland, the Permittee shall maintain adequate groundcover in order to protect the water quality of the reservoirs.
- C. Permittee shall follow and implement the mining operation and reclamation plan for the Kosse Lignite Mining Area as approved by the Railroad Commission of Texas and the U.S. Army Corps of Engineers in order to minimize disturbance and adverse impacts on the environment.
- D. On December 31, 2027 or with the cessation of mining activities, Permittee shall immediately cease diversion and use of the state water for mining purposes in this permit and either apply to amend the permit or voluntarily forfeit the diversion and use of the state water for mining purposes in this permit. If Permittee does not amend or forfeit the diversion and use of the State water for mining purposes in this permit, the TCEQ may begin proceedings to cancel the diversion and use of the state water in this permit. The Commission shall be notified immediately by the Permittee upon amendment or cessation of mining activities and shall be provided with copies of appropriate documents effecting such changes.

6. TIME LIMITATIONS

- A. Construction of the three dams and reservoirs (Ponds D-7, D-8, & D-9) must begin within two years of issuance of this permit and be completed within three years of issuance of this permit.
- B. Failure to commence and/or complete construction of the proposed dams and reservoirs (Ponds D-7, D-8, & D-9) within the period stated above shall cause the authorization for use of the reservoirs to expire and become null and void without further Commission consideration unless the Permittee applies for an extension of time to commence and/or complete construction prior to the deadline for commence and completion, and the application is subsequently granted.

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

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

All other matters requested in the application which are not specifically granted by this 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 of continuing supervision of State water resources exercised by the Commission.

DRAFT
Date issued:

DRAFT

For the Commission

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Craig Mikes, Project Manager
Water Rights Permitting Team
Water Supply Division
Date: December 27, 2005

Thru: Bill Billingsley, Team Leader *CL for BB 12/29/05*
Resource Protection Team
Water Supply Division

Kristin Wang, Senior Water Conservation Specialist *ESS for KW 12/28/05*
Resource Protection Team
Water Supply Division

From: Dean Minchillo, Water Conservation Specialist *(w) 12/29/05*
Resource Protection Team
Water Supply Division

Subject: TXU Mining Company, LP.
WRPERM5931
CN602518169
Review of Industrial Water Conservation Plan for Administrative Sufficiency-
Kosse LMA

TXU Mining Company, LP. Seeks authorization to divert and use, not to exceed, 1000 acre-feet of water per year for mining (dust suppression, construction and miscellaneous) purposes within the Kosse Lignite Mining Area (LMA) in Limestone and Robertson Counties, Texas.

Water will be diverted at a maximum combined rate of, not to exceed, 13.37 cfs (6,000 gpm) at any of the proposed 6 diversion points within the Kosse LMA located on an unnamed tributary of Willow Creek, tributary of Steele Creek, and White Branch, and unnamed tributaries of Steele Creek, tributary of the Navasota River, tributary of the Brazos River, Brazos River Basin. Mining operations will cease in the 2027 and applicant is seeking a permit for diversion through the end of that year.

Approximately 1,935 acre-feet per year of groundwater will be produced as a result of dewatering activities at the mine and pumped into ponds within the watershed or returned to nearby creeks in the area.

The December 2005 Industrial Water Conservation Plan for TXU Mining Company, LP. has been reviewed for administrative sufficiency for industrial use. The submitted plan meets the minimum requirements for industrial uses as defined by TCEQ Rules, Title 30 TAC Chapter 288.3.

This application requests a small amount of state water and is not mentioned in the approved 2002 State Water Plan or the January 2001 Region "G" Water Plan. It is the Water Conservation Staff's opinion that the project is not included with the state or approved regional plans due to its insignificant impact. Therefore, it is the Staff's position that this project cannot be inconsistent with the approved 2002 State Water Plan or the January 2001 Region "G" 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."

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

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Craig Mikes
Water Rights Permitting Team

Date: August 21, 2006
RECEIVED

Thru:

From: Warren D. Samuelson, P. E.
Dam Safety Program, MC-174

AUG 22 2006
TEXAS COMMISSION
ON
ENVIRONMENTAL QUALITY

Subject: TXU Mining Company LP (Kosse Lignite Mining Area), Application (Permit No. 5931) to construct and/or maintain five mining ponds, Brazos River Basin, Limestone and Robertson Counties.

The applicant seeks authorization to store water in five reservoirs in Limestone and Robertson Counties. Pond D-5 has a surface area of 8.4 acres and impounds 146.59 acre-feet. Pond D-6 covers an area of 91.8 acres and impounds 1,351 acre-feet. Pond D-7 is proposed to cover an area of 5.2 acres and impound 76.5 acre-feet. Pond D-8 is proposed to cover an area of 4 acres and impound 44 acre-feet. Pond D-9 is proposed to cover an area of 9 acres and impound 174 acre-feet.

Ponds D-5 and D-6 are incised ponds with small dams and were formed during reclamation activities associated with the lignite mining process.

Ponds D-7, D-8, and D-9 are proposed to be constructed in the same manner; however, no plans are available. It is recommended that the permit include the following language:

TIME LIMITATIONS

- (a) Construction of the three dams must begin within two years of issuance of this permit and be completed within three years of issuance of the permit.
- (b) Failure to commence and/or complete construction of the proposed dams within the period stated above shall cause the authorization for use of the reservoirs to expire and become null and void without further Commission consideration unless the Owner applies for an extension of time to commence and/or complete construction prior to the deadline for commencement and completion, and the application is subsequently granted.



Warren D. Samuelson, P. E.
Dam Safety Program

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Craig Mikes, Application Manager
Water Rights Permitting Team

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

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

Subject: TXU Mining Company LP (Kosse Lignite Mining Area)
WRPERM5931
CN602518169
Willow / Heads Creek Watershed, Brazos River Basin

September 29, 2006

WATER AVAILABILITY ANALYSIS

Application Summary

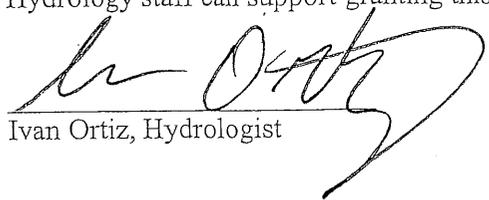
TXU Mining Company seek authorization to divert and use not to exceed 1,000 acre-feet of water per year from five diversion points to be located on Reservoirs D-5, D-6, D-7, D-8 and D-9 in the Kosse Lignite Mining Area (LMA) for mining purposes in Limestone and Robertson Counties. The proposed reservoirs will have a combined maximum capacity of 1,792.1 acre-feet of water and a combined surface area of 118.4 acres. The requested diversion points and on-channel reservoirs will be on tributaries of Steele Creek, tributary of the Navasota River, tributary of the Brazos River, Brazos River Basin. The maximum combined diversion rate will not exceed 13.4 cfs (6,000 gpm). The applicant has indicated that approximately 1,935 acre-feet of groundwater will be produced each year from dewatering activities during the mining process.

Water Availability Analysis

The Commission's water availability model (WAM) for the Brazos River Basin protects existing water rights based on the prior appropriation doctrine. The period of record for the Brazos WAM is 1940 to 1997. The applicant's request was modeled with a priority date of September 14, 2006. Resource Protection staff did not recommend an instream flow restriction for this application. Using the WAM Full Authorization simulation of the model, in which all basin rights utilize their maximum authorized amount, simulation results indicate that 100 % and 75 % of the applicant's annual demand of 1000 acre-feet would be met in 84.5 % and 89.7 % of the years, respectively. The applicant's monthly demand would be met in 92.1 % of the months.

Conclusion

Hydrology staff can support granting this application as requested.


Ivan Ortiz, Hydrologist

HYDROLOGY UNIT ANALYSIS FACT SHEET

Applicant: TXU Mining Company LP
 Water Right: 5234B
 Stream: Tributaries of Steele Creek
 Requested Amount: 1000 AF/Y

Basin: Brazos
 Counties: Limestone & Robertson
 Combined Drainage Area: 12.315 sq. miles

Changes to bwam3.dis:

FD593101	NAEA66	0	NAGR64	BGFR65
WP593101	0.96			
FD593102	NAEA66	0	NAGR64	BGFR65
WP593102	8.80			
FD593103	NAEA66	0	NAGR64	BGFR65
WP593103	0.72			
FD593104	NAEA66	0	NAGR64	BGFR65
WP593104	0.325			
FD593105	NAEA66	0	NAGR64	BGFR65
WP593105	1.51			

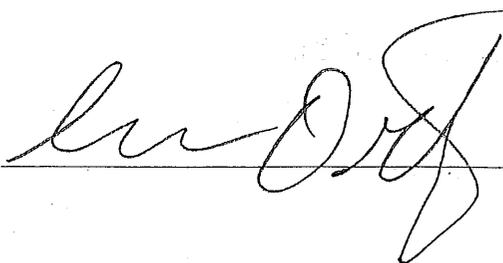
Changes to bwam3.dat:

UC 5931	75	75	85	85	90	90
UC	90	90	85	85	75	75

CP593101	NAEA66			6	406331	0.0000
CP593102	NAEA66			6	406331	0.0000
CP593103	NAEA66			6	406331	0.0000
CP593104	NAEA66			6	406331	0.0000
CP593105	NAEA66			6	406331	0.0000
CP5160P1	NAEA66			6	406331	0.0000

WR593101	0	593120060914	1	2	0.0000	P5931_1	P593115931001
WS593131	146.6	0.4897 0.7633	0	0	0		
WR593103	0	593120060914	1	2	0.0000	P5931_3	P593115931003
WS593133	76.5	0.4897 0.7633	0	0	0		
WR593105	0	593120060914	1	2	0.0000	P5931_5	P593115931005
WS593135	174	0.4897 0.7633	0	0	0		
WR593104	0	593120060914	1	2	0.0000	P5931_4	P593115931004
WS593134	44	0.4897 0.7633	0	0	0		
WR593102	1000	593120060914	1	2	0.0000	P5931_2	P593115931002
WS593132	1351	0.4897 0.7633	0	0	0		
WS593131	146.6	0.4897 0.7633	0	0	0		
OR593131		1 1					
WS593133	76.5	0.4897 0.7633	0	0	0		
OR593133		1 1					
WS593135	174	0.4897 0.7633	0	0	0		
OR593135		1 1					
WS593134	44	0.4897 0.7633	0	0	0		
OR593134		1 1					

Remarks: Resource Protection Staff did not recommend an instream flow restriction for this application.

Signature:  Date: 9/29/06

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Craig Mikes, Application Manager
Water Rights Team
Water Rights Permitting & Availability Section

Date: May 14, 2007

Through: Bill Billingsley, Team Leader
Resource Protection Team
Water Rights Permitting & Availability Section

WGS
5-15-07 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: TXU Mining Company
WRPERM 5931
CN 602518169
Water Right Application No. 5931
Willow / Heads Creek Watershed, Brazos River Basin
Robertson and Limestone Counties

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

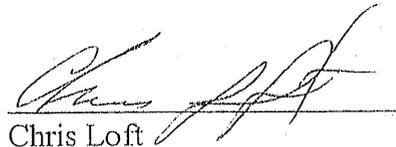
TXU Mining Company seeks a term permit through the year 2027 to divert and use not to exceed 1,000 acre-feet of water per year from five diversion points (known as Reservoirs D-5, D-6, D-7, D-8 and D-9) in the Kosse Lignite Mining Area (LMA) for mining purposes in Limestone and Robertson Counties. The proposed reservoirs will have a combined maximum capacity of 1,792.1 acre-feet of water and a combined surface area of 118.4 acres. The diversion points are on tributaries of Steele Creek, tributary of the Navasota River, tributary of the Brazos River, Brazos River Basin. The maximum combined diversion rate will not exceed 13.4 cfs (6,000 gpm). According to the applicant, approximately 1,935 acre-feet of groundwater will be produced each year from dewatering activities during the mining process.

October 12, 2006

In the October 12, 2007 environmental analysis memo, Resource Protection staff recommended as Special Condition No.2, the maintenance of a riparian buffer zone around the perimeter of the reservoirs. However, after subsequent discussions with the applicant, Resource Protection staff have agreed to modify Special Condition No. 2 as follows:

Upon cessation of mining activities, the permittee shall maintain a 50 foot wide riparian buffer zone of permanent vegetation around the perimeter of the reservoirs located in land use areas designated as fish and wildlife habitat. The buffer zone shall be graded to have a slope of no greater than 5% and planted with native vegetation at a density to ensure complete coverage at maturity. If the land use area surrounding the reservoirs is designated as grassland or pastureland, the permittee shall maintain adequate groundcover in order to protect the water quality of the reservoirs.

All other analyses and recommendations in the October 12, 2006 environmental memorandum remain unchanged unless specifically addressed in this addendum.



Chris Loft
Resource Protection Team

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Craig Mikes, Application Manager
Water Rights Team
Water Rights Permitting & Availability Section

Date: October 12, 2006

Through: Bill Billingsley, Team Leader
Resource Protection Team
Water Rights Permitting & Availability Section

BB 10/17/06

Wendy Gordon, Ph.D., Aquatic Scientist
Resource Protection Team
Water Rights Permitting & Availability Section

BB for WG
10/17/06

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

Subject: TXU Mining Company
WRPERM 5931
CN 602518169
Water Right Application No. 5931
Willow / Heads Creek Watershed, Brazos River Basin
Robertson and Limestone Counties

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

TXU Mining Company seeks a term permit through the year 2027 to divert and use not to exceed 1,000 acre-feet of water per year from five diversion points (known as Reservoirs D-5, D-6, D-7, D-8 and D-9) in the Kosse Lignite Mining Area (LMA) for mining purposes in Limestone and Robertson Counties. The proposed reservoirs will have a combined maximum capacity of 1,792.1 acre-feet of water and a combined surface area of 118.4 acres. The diversion points are on tributaries of Steele Creek, tributary of the Navasota River, tributary of the Brazos River, Brazos River Basin. The maximum combined diversion rate will not exceed 13.4 cfs (6,000 gpm). According to the applicant, approximately 1,935 acre-feet of groundwater will be produced each year from dewatering activities during the mining process.

INSTREAM USES

Recreational Uses:

There are no known recreational uses of the creeks within the Willow / Heads Creek watershed.

Aquatic and Riparian Habitats:

The Willow / Heads Creek watershed encompasses both Robertson and Limestone Counties. Robertson County covers 854 square miles of flat to gently rolling terrain. The county is characterized by rich river bottoms, upland prairies and timberland that support post oak, blackjack oak, cottonwood, elm, pecan, and mesquite trees. Limestone County comprises 931 square miles principally in the Blacklands Prairie region. The terrain is flat to rolling prairie. The vegetation includes mesquite, blackjack oak, pecan, bois d'arc and elm trees.

Mining activities have not yet begun in the Kosse LMA. The land use within the LMA is primarily pastureland. According to USGS topographic maps, Willow Creek and Heads Creek are intermittent streams. Heads Creek flows for approximately 5.4 miles to its confluence with Steele Creek, while Willow Creek flows for approximately 7.7 miles to the confluence with Steele Creek. According to the *Handbook of Texas Online*, Steele Creek passes through flat terrain with local shallow depressions surfaced by clay and sandy loams that support water-tolerant hardwood, conifers and grasses. From the mining area, Steele Creek flows for approximately 12.7 miles to the confluence with the Navasota River.

Applicant indicates that the groundwater produced through the mining process will either be pumped into the five proposed reservoirs (Table 1) for subsequent diversion or discharged into the watershed. The applicant indicates that the five reservoirs will be used for domestic and livestock purposes upon the cessation of mining and reclamation activities.

Table 1

Pond	Watercourse	Surface Area (acres)	Capacity (ac-ft)
D-5	Unnamed tributary of Steele Creek	8.4	146.6
D-6	Heads Creek	91.8	1351
D-7	Unnamed tributary of Steele Creek	5.2	76.5
D-8	Unnamed tributary of Willow Creek	4	44
D-9	Unnamed tributary of Willow Creek	9	174

Riparian zones are an integral part of aquatic ecosystems and a landscape component that has to function well if rivers are to maintain their ecological vitality in the long term (Nilsson and Svedmark 2002). Riparian areas are transitional zones between terrestrial and aquatic ecosystems and are distinguished by gradients in biophysical conditions, ecological processes, and biota. They are

areas through which surface and subsurface hydrology connect waterbodies with their adjacent uplands. They include those portions of terrestrial ecosystems that significantly influence exchanges of energy and matter with aquatic ecosystems (NRC 2002). Riparian areas provide many important functions including streamflow maintenance, nutrient cycling, chemical and other pollutant filtering, sediment trapping and redistribution, floodwater absorption and detention, fish and wildlife habitat and food provision for a wide range of biota (Naiman and Decamps 1997, Fischenich and Allen 2000, NRC 2002). Riparian buffer zones function most effectively when the following conditions are met:

- Minimum width of fifty (50) feet (Walsh et al. 1997, Fischenich and Allen 2000, EPA 2005)
- Gentle slope (5 %; maximum slope 15%) to allow sheet flow (Walsh et al. 1997, NRC 2002, EPA 2005)
- Dense vegetation (Nilsson and Svedmark 2002, NRC 2002)
- Vegetation composed of native species (EPA 2005)

In order to minimize permanent adverse impacts from the mining activities to the aquatic and riparian habitats, Resource Protection staff recommends the permittee establish riparian buffer zones using the guidelines listed above in addition to following all mitigation and reclamation requirements as set forth in the Railroad Commission of Texas (RCT) and the U.S. Army Corps of Engineers (USACE) permits.

Water Quality:

Steele Creek is a tributary of the Navasota River below Lake Limestone, which is designated as Segment No. 1209 in the *State of Texas Water Quality Inventory*. Designated uses of Segment No. 1209 include contact recreation, high aquatic life use, fish consumption and public water supply. Available data indicate the aquatic life and public water supply uses are fully supported. The fish consumption use was not assessed. The contact recreation use is not supported due to elevated levels of bacteria. Segment No. 1209 is on the 2004 303(d) list due to elevated bacteria levels. However, the proposed impoundment and term diversion of water in the Willow / Heads Creek watershed is not expected to adversely impact the water quality in Segment No. 1209.

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 more than 200 river miles from the Gulf of Mexico. As an individual event, the impoundment and term diversion of water will minimally impact the Brazos Estuary. However, the cumulative effects of all diversions and impoundments in the Brazos River Basin upon the receiving estuary are unknown at this time. A freshwater inflow study for the Brazos River Estuary is currently in progress.

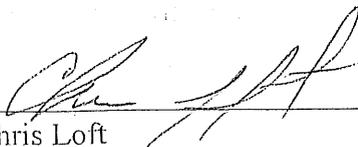
SUMMARY

TXU Mining Company seeks a term permit through the year 2027 to divert and use not to exceed 1,000 acre-feet of water per year from five diversion points (known as Reservoirs D-5, D-6, D-7, D-8 and D-9) in the Kosse Lignite Mining Area (LMA) for mining purposes in Limestone and Robertson Counties. The reservoirs will have a combined maximum capacity of 1,792.1 acre-feet of water and a combined surface area of 118.4 acres. The diversion points are on tributaries of Steele Creek, tributary of the Navasota River, tributary of the Brazos River, Brazos River Basin. The maximum combined diversion rate will not exceed 13.4 cfs (6,000 gpm). According to the applicant, approximately 1,935 acre-feet of groundwater will be produced each year from dewatering activities during the mining process.

Resource Protection staff support issuance of the permit if the following special conditions are adopted in the permit:

1. Mining activities shall not cause dewatering of Steele Creek downstream of the proposed diversion points.
2. In order to protect the water quality of the reservoirs and the ecosystems of the water bodies downstream of the reservoirs, the permittee shall maintain a riparian buffer zone of permanent vegetation around the perimeter of the reservoirs averaging 50 feet in width with the exception of reasonable access areas. The buffer zone shall be graded to have a slope no greater than 5% and planted with native vegetation at a density to ensure complete coverage at maturity.
3. Permittee shall follow and implement the mining operation and reclamation plan for the Kosse Lignite Mining Area as approved by the Railroad Commission of Texas and the U.S. Army Corps of Engineers in order to minimize disturbance and adverse impacts on the environment.

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.


Chris Loft

Resource Protection Team

LITERATURE CITED

Ellis, L.T., W. Pohl, R. Tyler. 1997-2001. Handbook of Texas Online. The Texas State Historical Association.

Environmental Protection Agency. 2005. National Management Measures to Protect and Restore Wetlands and Riparian Areas for the Abatement of Nonpoint Source Pollution. EPA-841-B-05-003.

Fischenich, J.C. and H. Allen. 2000. Stream Management. U.S. Army Corps of Engineers: Engineer Research and Development Center. ERDC/EL SR-W-00-1

Naiman , R.J. and H. Decamps. 1997. The Ecology of Interfaces: Riparian Zones. Annu. Rev. Ecol. Syst. 28:621-58.

National Research Council. 2002. Riparian Areas: Functions and Strategies for Management. National Academy Press, Washington D.C.

Nilsson, C. and M. Svedmark. 2002. Basic Principles and Ecological Consequences of Changing Water Regimes: Riparian Plant Communities. Env. Mgmt. 30:468-80.

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

Walsh P. M. et al. 1997. Use of Vegetative Controls for Treatment of Highway Runoff. Center for Research in Water Resources, Austin, Texas.

cc: Todd Chenoweth, Manager, Water Rights Permitting & Availability Section, TCEQ
Ivan Ortiz, Surface Water Availability and Interstate Compacts Team, TCEQ