Luminant

Rafael Flores
Senior Vice President &
Chief Nuclear Officer
rafael.flores@luminant.com

Luminant Power
P O Box 1002
6322 North FM 56
Glen Rose, TX 76043

T 254.897.5590
F 254.897.6652
C 817.559.0403

CP-200901112
Log # TXNB-09029

Ref. # 10 CFR 52

August 10, 2009

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555
ATTN: David B. Matthews, Director
Division of New Reactor Licensing

SUBJECT: COMANCHE PEAK NUCLEAR POWER PLANT, UNITS 3 AND 4
DOCKET NUMBERS 52-034 AND 52-035
FINAL PARTIAL RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING THE ENVIRONMENTAL REVIEW OF THE COMBINED LICENSE APPLICATION OF COMANCHE PEAK UNITS 3 AND 4

REFERENCE: Letter, M. Willingham to D. Woodlan, "Request for Additional Information Regarding the Environmental Review of the Combined License Application for Comanche Peak Nuclear Power Plant, Units 3 and 4," dated June 26, 2009 (ML091460707)

Dear Sir:

Luminant Generation Company LLC (Luminant) hereby submits the last of three letters responding to specific questions posed in the referenced letter for the Combined License Application for Comanche Peak Nuclear Power Plant Units 3 and 4. The specific responses in the Attachment to this letter are:

ALT-01	HYD-11	HYD-17	SOC-10
HP-01	HYD-12	HYD-18	SOC-16
HR-04	HYD-13	HYD-19	SOC-23
HYD-07	HYD-15	SOC-05	TE-03

When support documents such as calculations or reports are provided, only the revision used to support the application is submitted. Any subsequent revisions to those documents will be retained and will be available for review or audit on site.

There are no commitments in this letter.

Should you have any questions regarding these responses, please contact Don Woodlan (254-897-6887, Donald.Woodlan@luminant.com) or me.

Enclosures 1-4, 8, and 10-12 contain confidential, proprietary, and sensitive unclassified non-safeguards information to be withheld from public disclosure under 10 CFR 2.390.

D090
NRO

I state under penalty of perjury that the foregoing is true and correct.

Executed on August 10, 2009

Sincerely,

Luminant Generation Company LLC

RD Griffith for

Rafael Flores

Attachment Response to Request for Additional Information Regarding the Environmental Review of the Combined License Application for Comanche Peak Nuclear Power Plant, Units 3 and 4 (electronic)

Enclosures

1. Generic Research Design for Archaeological Surveys of Oncor Electric Delivery Electric Transmission Line Projects in Texas, February 2008 (HR-04)
2. CWS-13-05-230-002, Rev. B, Conceptual Design of Makeup Water Screening System for Lake Granbury Intake Structure, June 12, 2008 (HYD-11)
3. CWS-13-05-230-001, Rev. G, Conceptual Structural Design of Circulating Water, Makeup Water and Blowdown Water Systems, April 7, 2009 (HYD-12)
4. DRN-12-05-500-001, Rev. A, Conceptual Design of Grading and Drainage of COLA Building Structures (HYD-13)
5. Upper Basin, www.brazos.org, FY2008 (SOC-10)
6. Acton Municipal Utility District, www.amud.com, July 8, 2009 (SOC-10)
7. Transportation and Traffic Engineering Study. Comanche Peak Steam Electric Station, October 1987 (SOC-16)
8. Vegetation Management Guidelines, June 2007 (TE-03)
9. Transmission Engineering Standards, Construction, 720-003 Construction Specification for Transmission Line Right-of-Way Clearing, August 7, 2007 (TE-03)
10. Oncor Electric Delivery Company, Overhead Electric Environmental Guidelines for Small-Scale Construction/Maintenance Projects, Revision 3, February 2008 (TE-03)
11. Oncor Electric Delivery Co., Overhead Electric Environmental Guidelines for Vegetation Maintenance on Right-of Way and Company Facilities, Revision 3, February 2008 (TE-03)
12. Oncor Electric Delivery Co. LLC, Electric & Transmission Line Projects Disturbing 5 or More Acres, Storm Water Pollution Prevention Plan, Example Only EHST Project Number 00-0000 March 2009 (TE-03)

Cc - Stephen Monarque, w/ attachment
Michael Willingham, w/attachment

Electronic Distribution w/Attachments 1 and 2

mike.blevins@luminant.com
Brett.Wiggs@luminant.com
Rafael.Flores@luminant.com
mlucas3@luminant.com
jeff.simmons@energyfutureholdings.com
Bill.Moore@luminant.com
Brock.Degeyter@energyfutureholdings.com
rbird1@luminant.com
Matthew.Weeks@luminant.com
Allan.Koenig@luminant.com
Timothy.Clouser@luminant.com
Ronald.Carver@luminant.com
Bruce.Turner@luminant.com
Eric.Evans@luminant.com
Robert.Reible@luminant.com
donald.woodlan@luminant.com
John.Conly@luminant.com
JCaldwell@luminant.com
David.Beshear@txu.com
Ashley.Monts@luminant.com
Fred.Madden@luminant.com
Dennis.Buschbaum@luminant.com
Carolyn.Cosentino@luminant.com
masahiko_kaneda@mnes-us.com
nan_sirirat@mnes-us.com
masanori_onozuka@mnes-us.com
ck_paulson@mnes-us.com
joseph_tapia@mnes-us.com
russell_bywater@mnes-us.com
diane_yeager@mnes-us.com
kazuya_hayashi@mnes-us.com
mutsumi_ishida@mnes-us.com
rjb@nei.org
kak@nei.org
cp34update@certrec.com
michael.takacs@nrc.gov
michael.johnson@nrc.gov
David.Matthews@nrc.gov
Balwant.Singal@nrc.gov
paul.kallan@nrc.gov
Stephen.Monarque@nrc.gov
jeff.ciocco@nrc.gov
michael.willingham@nrc.gov
john.kramer@nrc.gov
Brian.Tindell@nrc.gov
Elmo.Collins@nrc.gov
Loren.Plisco@nrc.gov
Laura.Goldin@nrc.gov
James.Biggins@nrc.gov
William.Ward@nrc.gov
sfrantz@morganlewis.com
tmatthews@morganlewis.com

Enclosure 1

MHI Ref: HF-MNS-09027

MITSUBISHI HEAVY INDUSTRIES, LTD.

AFFIDAVIT

I, Yoshiki Ogata, state as follows:

1. I am the General Manager, APWR Promoting Department, of Mitsubishi Heavy Industries, LTD ("MHI"), and have been delegated the function of reviewing MHI's US-APWR documentation to determine whether it contains information that should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4) as trade secrets and commercial or financial information which is privileged or confidential.

2. In accordance with my responsibilities, I have reviewed the enclosed documents entitled "Conceptual Structural Design of Circulating Water, Makeup Water and Blowdown Water Systems." dated April 7, 2009, "Conceptual Design of Makeup Water Screening System for Lake Granbury Intake Structure" dated June 12, 2008 and "Conceptual Design of Grading and Drainage of COLA Building Structures" dated March 21, 2008, and have determined that the documents contain proprietary information that should be withheld from public disclosure.

3. The information identified as proprietary in the enclosed documents has in the past been, and will continue to be, held in confidence by MHI and its disclosure outside the company is limited to regulatory bodies, customers and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and is always subject to suitable measures to protect it from unauthorized use or disclosure.

4. The basis for holding the referenced information confidential are as follows:

   A. They include the know-how and outputs obtained from analyses or designing which required significant cost to MHI. It required the performance of detailed design calculations, supporting analyses and testing extending over several years. The referenced information is not available in public sources and could not be gathered readily from other publicly available information. MHI knows of no way the information could be lawfully acquired by organizations or individuals outside of MHI.

   B. They include the information directly referred from documents or books the copyrights of which are reserved.

5. The referenced information is being furnished to the Nuclear Regulatory Commission ("NRC") in confidence and solely for the purpose of information to the NRC staff.

6. Public disclosure of the referenced information would assist competitors of MHI in their design of new nuclear power plants without the costs or risks associated with the design of new systems and components. Disclosure of the information identified as proprietary would therefore have negative impacts on the competitive position of MHI and the Licensors in the U.S. nuclear plant market.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information and belief.

Executed on this 18th day of July 2009.

Y. Ogata

Yoshiki Ogata,
General Manager- APWR Promoting Department
Mitsubishi Heavy Industries, LTD.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

Luminant Generation Company LLC Project No. 0754

Comanche Peak Nuclear Power Plant, Units 3 and 4

AFFIDAVIT

I, Lee Maurer, being duly sworn, hereby depose and state I am Senior Manager Engineering of Oncor Electric Delivery Company LLC ("Oncor") and do hereby affirm and state:

1. I am authorized to execute this affidavit on behalf of Oncor.

2. Oncor is providing information in support of the combined license application by Luminant Generation Company LLC for the Comanche Peak Nuclear Power Plant, Units 3 and 4. The information being disclosed is Oncor's Vegetation Management Guidelines, June 2007 (internal, Oncor Elect. Delivery). Its disclosure would place Oncor at a distinct disadvantage in conducting business as competitors could analyze the data to identify strengths and weaknesses, and then seek to capitalize on those perceived strengths and weaknesses. As such, this information is protectable under 10 CFR 2.390(a)(4), because:

   i. This information is and has been held in confidence by Oncor.

   ii This information is of a type that is customarily held in confidence by Oncor, and there is a rational basis for doing so because the information contains sensitive commercial information concerning operations of Oncor.

   iii. This information is being submitted to the NRC voluntarily and in confidence,

   iv. This information is not available in public sources and could not be gathered readily from other publicly available information.

   v. Public disclosure of this information would create substantial harm to the competitive position of Oncor by disclosing its internal commercial information.

3. Accordingly, Oncor requests that the designated documents be withheld from public disclosure pursuant to the policy reflected in 10 CFR 2.390(a)(4).

Lee Maurer

STATE OF TEXAS
COUNTY OF TARRANT

Subscribed and sworn to me, a Notary Public, in and for the State of Texas, this 7th day of August, 2009.

LAURA DELAPAZ
Notary Public, State of Texas
My Commission Expires
February 20, 2010

Confidential information submitted under 10 CFR 2.390 - Proprietary Commercial Information

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of

Luminant Generation Company LLC) Project No. 0754

Comanche Peak Nuclear Power Plant, Units 3 and 4

AFFIDAVIT

I, Deborah A. Boyle, being duly sworn, hereby depose and state I am the Sr. Director Oncor Environment, Health Safety & Training, of Oncor Electric Delivery Company LLC ("Oncor") and do hereby affirm and state:

1. I am authorized to execute this affidavit on behalf of Oncor.

2. Oncor is providing information in support of the combined license application by Luminant Generation Company LLC for the Comanche Peak Nuclear Power Plant, Units 3 and 4. The information being disclosed includes (i) Oncor Electric Delivery Co., Overhead Electric Environmental Guidelines for Small-Scale Construction/Maintenance Projects, Rev. 3, Feb. 2008, Cover page & Guideline 1-10; (ii) Oncor Electric Delivery Co., Overhead Electric Environmental Guidelines for Vegetative Maintenance on Right-of-Way and Company Facilities, Rev. 3, Feb. 2008, Cover page & Guideline 1-9; (iii) Oncor Electric Delivery Co. LLC, Electric & Transmission Line Projects Disturbing 5 or More Acres, Storm Water Pollution Prevention Plan, Example Only EHST Project Number 00- 0000 March 2009; and (iv) Generic Research Design for Archaeological Surveys of ONCOR Electric Delivery/Electric Transmission Line Projects in Texas, ONCOR N.D. Its disclosure would place Oncor at a distinct disadvantage in conducting business as competitors could analyze the data to identify strengths and weaknesses, and then seek to capitalize on those perceived strengths and weaknesses. As such, this information is protectable under 10 CFR 2.390(a)(4), because:

   i. This information is and has been held in confidence by Oncor.

   ii This information is of a type that is customarily held in confidence by Oncor, and there is a rational basis for doing so because the information contains sensitive commercial information concerning operations of Oncor.

   iii. This information is being submitted to the NRC voluntarily and in confidence,

   iv. This information is not available in public sources and could not be gathered readily from other publicly available information.

   v. Public disclosure of this information would create substantial harm to the competitive position of Oncor by disclosing its internal commercial information.

3. Accordingly, Oncor requests that the designated documents be withheld from public disclosure pursuant to the policy reflected in 10 CFR 2.390(a)(4).

Deborah A. Boyle

STATE OF TEXAS
COUNTY OF DALLAS

Subscribed and sworn to me, a Notary Public, in and for the State of Texas, this 28th day of July, 2009.

Eloise B. Long

ELOISE B. LONG
Notary Public, State of Texas
My Commission Expires
March 28, 2012

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Comanche Peak, Units 3 and 4

Luminant Generation Company LLC

Docket Nos. 52-034 and 52-035

RAI REGARDING THE ENVIRONMENTAL REVIEW

DATE OF RAI ISSUE: 6/26/2009

QUESTION NO.: ALT-01 (9.2.3.1.1.2-1)

Provide an estimate for the land use requirements for the six-unit 3,180 MW(e) coal-fired plant alternative described in the ER based on the land use requirements of actual large coal plants.

In Section 9.2.3.1.1.2, Land Use [Coal], the ER states that 5,406 acres would be needed for the alternative six coal-fired units based on the NUREG-1437 estimate of 1700 acres per 1000 MW(e). However, the NRC acknowledges that this reference provides an unrealistically high estimate resulting in projected land needs that exceed the available land at the Comanche Peak site. In order to determine the ability for the proposed coal-fired alternative to be located at the Comanche Peak site, a more realistic estimate is needed. The land use requirements will impact the need for additional land or the need to locate a portion of the generating capacity at another location. Use a minimum of three regional plants or other plants in Luminant's fleet to provide an average land use requirement in acres per MW(e). Provide the names, locations, and sizes of each plant used in the estimate.

ANSWER:

Plot plans for three of Luminant's lignite coal plants were reviewed to gather site acreage usage data. This data, along with the other facility attributes requested, are provided in the table below. These acreage figures do not include any mining, lakes, or waste disposal facilities, nor do they include any "excess" land that may be owned by Luminant in the vicinity around the facilities.

Plant Site Name	Total Site MW(e)	Total Site Acreage	Location
Martin Lake	2400	95	Rusk County, Tx
Sandow 5	590	30	Milam County, Tx
Oak Grove	1800	100	Robertson County, Tx
Totals	4790	225	
Average acres per MW(e)		0.047	
Average acres per 1000 MW(e)		47	

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: HP-01 (3.5.1.3-1)

Provide information on the design (including location) and planned operation of the evaporation pond to limit tritium concentration in Squaw Creek reservoir.

ANSWER:

The primary purpose of the evaporation pond is to provide a means to receive, store, and process treated radioactive effluent from the CPNPP Unit 3 and 4 liquid radioactive waste management system when the tritium concentration in the SCR is approaching a predetermined limit. The evaporation pond is not designed as a normal discharge. When the tritium concentration in SCR is approaching predetermined limit the radioactive effluent is discharged to the evaporation pond.

During normal operation, the tritium concentration of the liquid effluents from all four units in the SCR can be close to, but it is controlled not to exceed the administrative limit. When the tritium concentration in the SCR is analyzed to be getting close to the limit, liquid effluent from Units 3 and 4 is to be diverted to the evaporation pond.

Using the maximum tritium concentration in the effluent (assuming maximum Tritium Distribution Factor, full-power operation, and an operating margin of 20 percent tritium concentration in the SCR), effluent up to about 50 percent of the Unit 3 and 4 total would need to divert into the pond for temporary storage until the tritium concentration in the SCR comes below the target concentration. This change of tritium concentration in the SCR may be a result from seasonal rainfalls, additional makeup water from Lake Granbury, or higher spill over rate from the SCR into the Brazos River. The evaporation pond is designed to meet following design standards. (Others may be applicable as the design is finalized.)

Texas Commission of Environmental Quality (TCEQ)

TCEQ 330, Municipal Solid Waste

TCEQ 217.203, Design Criteria for Natural Treatment Facilities

American Society for Testing and Materials (ASTM)

ASTM D3020, Specification for Polyethylene and Ethylene Copolymer Plastic Sheeting for Pond, Canal and Reservoir Lining

ASTM D5514-06, Standard Test Method of Large Scale Hydrostatic Puncture Testing of Geosynthetics

ASTM D7002-03, Standard Practice for Leak Location on Exposed Geomembranes Using the Water Puddle System

The pond is an open-type, to allow water to naturally evaporate, and is constructed with two layers of High Density Polyethylene (HDPE) material suitable for this function. A drainable mesh mat with a minimum thickness of 30 mils is provided in between the two layers of HDPE to allow movement of leakage from the top layer of HDPE.

The pond is constructed with a total depth of 6 feet, with 4 feet of liquid and 2 feet of freeboard. A layer of clay, with permeability less than 1E-7 centimeter per second, supports the pond. A berm is constructed to prevent surface water from entering the pond during rainy seasons.

The pond is equipped with a centrifugal pump to return the water to the SCR via the discharge box. Evaporation pond water is only returned to SCR if the SCR tritium concentration is sufficiently low to accommodate the evaporation pond effluent. The return piping is connected to the circulating water return line. The effluent is sampled before discharge and is monitored for radionuclide concentration by a radiation monitor, which can turn off the pump, actuate an isolation valve and initiate an alarm signal to the Main Control Room and the Radwaste Control Room for operator actions.

The pond is located approximately 0.4 mile southwest of CPNPP Units 3 and 4 power block as described in FSAR Subsection 2.3.5.2.2 and ER Figure 3.4-3 (Sheet 3 of 3).

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: HR-04 (5.1.3.2-1)

Provide a copy of the document titled: *Generic Research Design for Archaeological Surveys of ONCOR Electric Delivery/Electric Transmission Line Projects in Texas*, ONCOR N.D.

ANSWER:

The requested document is attached with an affidavit supporting its proprietary classification.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: HYD-07 (2.3.1-7)

Provide all available site-specific soils and hydrogeologic data relevant to the proposed 384-acre onsite storage and evaporation ponds and blowdown treatment facility.

ANSWER:

The evaporation and storage ponds associated with the blowdown treatment facility will be designed and constructed in accordance with the Texas Commission on Environmental Quality (TCEQ) requirements. These requirements will ensure protection of the groundwater because they include protective features that preclude leakage from the ponds. Consequently, site-specific soils and hydrogeologic data are not needed.

The Texas Commission on Environmental Quality (TCEQ) establishes the standards to maintain the quality of the water in the state consistent with public health and enjoyment, protection of wildlife, operation of industries, and economic development of the state.

Impact on R-COLA

None.

Impact on S-COLA

None

Impact on DCD

None.

QUESTION NO.: HYD-11 (3.4.2-1)

Provide design details and calculations for the intake structure flow patterns, including screen opening size(s), through screen velocities under differing reservoir conditions, and assumptions of how the reservoir ambient flow field will affect the intake structure performance and hydraulics.

ANSWER:

The design document for the design detail and calculation (CWS-13-05-230-002, Rev B) is attached.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: HYD-12 (3.4.2-2)

Provide for reference design details for the proposed submerged multiport diffuser for blowdown effluent to Lake Granbury, including horizontal and vertical alignment and location relative to significant bathymetric features of the reservoir.

ANSWER:

The design document for the design detail (CWS-13-05-230-001, Rev G) is attached.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: HYD-13 (3.6.3.2-1)

Provide for reference details of how storm water will be routed, collected, treated and disposed for the Unit 3 and 4 facilities.

ANSWER:

The document for detailed water drainage (DRN-12-05-500-001, Rev. A) is attached.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: HYD-15

Provide estimates of the water availability, physical, and water quality impacts on Brazos River system of Brazos River system water management changes that would be induced by the implementation water rights adequate for operation of Units 3 and 4, including water quality impacts to Possum Kingdom Lake, Lake Granbury, and the Brazos River downstream of Lake Granbury. Include quantitative multi-year time series simulation data on the elevation, inflows, releases, and water quality of reservoirs in the Brazos River system.

ANSWER:

Further discussions with the NRC revealed the need to provide results for the modified WAM simulations, the executable code, and a description of the modifications that were made to the TCEQ WAM. The requested information is attached.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: HYD-17 (5.2-3)

Provide a more detailed description and justification of how the SMALL level of impact to groundwater and surface water was determined.

ANSWER:

Because the evaporation and storage ponds associated with the blowdown treatment facility will be designed and constructed in accordance with the Texas Commission on Environmental Quality (TCEQ) requirements, there will be no impact to groundwater and surface water. The TCEQ requirements include protective features that preclude leakage from the ponds.

The TCEQ establishes the standards to maintain the quality of the water in the state consistent with public health and enjoyment, protection of wildlife, operation of industries, and economic development of the state.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: HYD-18 (5.3-1)

Provide a characterization, with supporting data and rationale, of the ambient flow field and bathymetry that would affect or be affected by the proposed Units 3 and 4 intake and outfall structures, accounting for the site-specific bathymetry of lower Lake Granbury including a description of how spatial patterns of velocity and temperature are dependent on reservoir elevation, low-level outlet (sluice gate) flow, spillway flow, degree of thermal stratification, and the overall magnitude of release from DeCordova Bend Dam.

ANSWER:

The requested information was provided to the NRC on May 26, 2009, via Luminant letter TXNB-09021 (ML091490263). The question was discussed further with the NRC reviewer at the July 2009 Hydrology Safety Site Visit. The reviewer expressed some doubt that certain statements in the ER were adequately supported. Although Luminant believes the studies support the conclusions, Luminant will delete the statements regarding low intake velocity and the distance between the discharge and intake locations in ER Subsections 5.2.1.6 and 5.3.2.1. The ER markup pages are attached.

Impact on R-COLA

See attached marked-up ER Revision 0 Subsections 5.2.1.6 and 5.3.2.1.

Impact on S-COLA

None.

Impact on DCD

None.

Attachments:

None.

QUESTION NO.: HYD-19 (5.3-2)

Provide a site-specific assessment of the flow field and water quality parameter distributions and related impacts in the portion of Lake Granbury extending from approximately one mile upstream of the proposed Units 3 and 4 water intake structure to DeCordova Bend Dam that will result from full-power operation of four units, with particular emphasis on the conditions that would exist during periods of minimum release from DeCordova Bend Dam and minimum inflow to Lake Granbury.

ANSWER:

The information was provided to the NRC on May 26, 2009 via Luminant letter TXNB-09021 (ML091490263).

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: SOC-05 (2.5.2.2.3-1)

Provide the following information about local traffic conditions:

1. The exact location (indicated by mile marks on a road map) of road segments for which traffic counts are provided in Sect. 2.5.2.2.3 of the ER.

2. Peak hour traffic counts and Level of Service (LOS) for all road segments for which traffic counts are provided in Sect. 2.5.2.2.3 of the ER.

3. The Level of Service that would apply when "capacity" as described in Section 4.4.1.3 of each direction of travel on a two-lane highway).

4. Road segments and intersections near CPNPP where congestion is currently experienced during shift changes for normal operations of CPNPP Units 1 and 2, and peak hour traffic counts and LOS for those segments and intersections.

5. Road segments and intersections near CPNPP where congestion is currently experienced during CPNPP 1 and 2 maintenance and refueling outages, and peak hour traffic counts and LOS for those segments and intersections.

6. Road segments and intersections near CPNPP where congestion is currently experienced due to traffic related to oil and gas exploration and extraction activities.

7. Peak hour traffic counts and LOS for key segments of US 377 in and around Granbury and for the intersections of US 67 and SR 144 in Glen Rose (if not addressed above) Peak hour traffic counts and LOS for key road segments and intersections in Cleburne and Stephenville that are on the main route to CPNPP.

ANSWER:

(1) Information provided to the NRC in the UTR Revision 3 on May 14, 2009, via Luminant Letter TXNB-09011.

(2) Levels of Service (LOS) are not available for road segments in Texas without a specific traffic study. Traffic studies are performed when a roadway is deemed sufficiently congested, often as the result of public complaints. Peak traffic counts for the road segments mentioned in Subsection 2.5.2.2.3 are not available from the Texas Department of Transportation (TxDOT). Peak traffic counts are only available for road segments with permanent ATR stations. ATR is defined as Automatic Traffic Recorders and are permanent locations that record traffic 24-hrs a day all year.

(3) According to the Highway Capacity Manual, the capacity of a highway is "the maximum hourly rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, traffic, and control conditions." The LOS of a two-lane highway at capacity would depend upon the average time spent following and the average speed. For a two-lane highway, the highest volume attainable under LOS E defines the capacity of the highway, generally 3,200 passenger cars per hour total in both directions.

(4) Local officials reported no traffic congestions on FM 51 and FM 56. Congestion is not currently experienced during CPNPP Units 1 and 2 shift changes. The maximum number of workers involved in peak hour morning and evening shift changes during operations is related to the number of workers. Assuming a single worker per vehicle, the maximum number of vehicles involved in peak morning shift changes for CPNPP Units 1 and 2 is approximately 900 vehicles on an average day, with the peak afternoon/evening number at approximately 200 vehicles. All other hours are approximately 100 vehicles. These vehicle numbers include all people going in and out of the plant, including cars, trucks, and deliveries.

As discussed in Subsection 2.5.2.2.3, FM 56 has an annual average daily traffic (AADT) count of 3500 south of the plant entrance and 8500 to the north. These numbers include CPNPP plant personnel. Thus, if all the peak morning workers came from the south, it would only amount to approximately 26 percent of the daily traffic. If all the peak morning workers came from the north, it would amount to approximately 11 percent of the total daily traffic. Because the traffic is split between the northern and southern approaches, the impact to each direction is less than the percents listed above.

LOS and peak traffic counts are not available as discussed in Part 2 of this response.

(5) Congestion is not currently experienced during CPNPP Units 1 and 2 outages. During a standard outage there are 1600 vehicles during the peak morning shift change, 400 vehicles for peak afternoon/evening, and 150 vehicles at all other hours. Thus, if all the peak morning workers including outage workers came from the south, it would amount to approximately 46 percent of the daily traffic. If all the peak morning workers came from the north, it would amount to approximately 19 percent of the total daily traffic. During a large outage, there are 3000 vehicles during the peak morning shift change, 1200 vehicles for peak afternoon/evening, and 800 vehicles at all other hours. Thus, during a large out if all the peak morning workers including outage workers came from the south, it would amount to approximately 86 percent of the daily traffic. If all the peak morning workers came from the north, it would amount to approximately 38 percent of the total daily traffic.

(6) Information provided to the NRC in the UTR Revision 3 on May 14, 2009, via Luminant Letter TXNB-09011.

(7) There are no permanent ATR stations in Erath, Hood, Johnson, or Somervell County. Thus, LOS and peak traffic counts are not available for the key road segments around Cleburne, Glen Rose, Granbury, and Stephenville.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: SOC-10 (2.5.2.7.1-1)

Provide the following information about local water and waste water treatment systems:

1. Whether the Lake Granbury Surface Water and Treatment System is currently in operation. If not, an explanation is needed of any financial or technical issues that may inhibit future operations

2. The water treatment capacity and average daily consumption for the Cities of Granbury and Tolar (currently reported differently in Table 2.5-20 and in the text of Section 2.5.2.7.1 of the ER)

3. Current peak daily consumption (to supplement the average daily consumption) for all water treatment facilities listed in Table 2.5-20 of the ER

4. Names of municipalities served by each water treatment system shown in Table 2.5-20 of the ER

5. For all wastewater processing facilities, the same information shown for water systems in Table 2.5-20 of the ER, plus current peak demand, name of municipality served, and an identification of which wastewater facilities serve combined systems (those that handle both sanitary sewage and storm water runoff)

ANSWER:

1, 2, and parts of 5. The information in the response to these questions were addressed by Luminant's response to NRC Information Needs SOC-10 in the Updated Tracking Report (UTR) Revision 3 provided to the Staff on May 12, 2009, via Luminant Letter TXNB-09011 and includes the status of the Lake Granbury Surface Water and Treatment System (SWATS), the water treatment capacity and average daily consumption for the cities of Granbury and Tolar, and the maximum capacity and current usage of the wastewater treatment facilities. Question 5 is being separated into two parts, 5a and 5b. Part 5a was addressed by the Update Tracking Report, Revision 3. Part 5b is answered to below.

3. Current peak consumption for the water treatment systems shown in Table 2.5-20 is provided in the table below.

Name	PWS #	Peak Daily Consumption (gpd)
Hood County		
Acton MUD	1110007	5.503
Acton Water Co. Royal Oaks	1110055	0.070
Arrowhead Shores (Merged/Annexed with Oak Trail Shores)		
Bentwater on Lake Granbury	1110116	0.221
Blue Water Shores	1110079	0.114
Boynton Water Co.	1110042	0.010
Brazos River Acres	1110028	0.178

Name	PWS #	Peak Daily Consumption (gpd)
Brazos River Authority Lake Granbury SWATS	1110100	5.150
Canyon Creek Addition	1110070	0.145
City of Granbury	1110001	3.151
City of Lipan	1110011	Unknown
City of Tolar	1110012	0.166
Comanche Cove & Heritage Heights	1110060	0.282
Comanche Harbor & Port Ocall	1110022	0.197
Comanche Peak North	1110050	0.089
Country Meadows Subdivision	1110089	Unknown
Eastwood Village	1110052	0.093
Fall Creek Utility Company	1110114	Unknown
Granbury Acres Water System	1110109	0.060
Hideaway Bay Estates	1110002	0.038
Hunterwoods Subdivision Water System	1110083	Unknown
Laguna Tres Subdivision	1110019	0.158
Laguna Vista Subdivision	1110095	0.105
Lake County Acres	1110059	Unknown
Lakeside Hills (Merged/Annexed with Hunterwood Subdivision Water System)		
Long Creek Water Co.	1110017	0.093
Mallard Pointe Subdivision	1110112	Unknown
Mesa Grande WSC	1110018	0.051
Midhaven Estates	1110094	0.148
Montego Bay Estates	1110044	0.068
Mooreland Water Co.	1110006	0.062
Mountain View Subdivision	1110035	0.185
Nolan Creek Estates	1110080	Unknown

Name	PWS #	Peak Daily Consumption (gpd)
North Fork Creek	1110074	0.154
North Fork Creek II	1110088	Unknown
Oak Trail Shores	1110004	0.573
Peninsula Addition	1110115	0.050
Rain WSC	1110037	0.031
Rancho Brazos Subdivision	1110036	0.060
Ridge Utilities Inc.	1110084	0.051
River Country Acres	1110045	0.058
River Run Subdivision	1110076	0.025
Rock Harbor Estates	1110024	0.050
Rolling Hills Water Service Inc.	1110032	Unknown
Scenic Ridge Addition	1110098	0.024
Shady Grove Subdivision	1110085	0.031
Sky Harbour WSC	1110016	0.091
South Harbor Subdivision	1110056	0.092
Summerlin Addition (Merged/Annexed with City of Granbury)		
Sunchase Meadows	1110087	0.202
Sunset Acres Mobile Home Park	1110077	0.026
Sunset Canyon Water Moore Estates	1110102	0.010
Western Hills Harbor	1110005	0.158
Whipporwill Bay Subdivision	1110027	0.110
Somervell County		
Cheyenne Hills Water Supply	2130035	0.025
City of Glen Rose	2130001	1.126
Country Meadows	2130008	Unknown
Greenfields on Squaw Creek	2130036	0.005
Happy Hill Farm	2130009	Unknown

Name	PWS #	Peak Daily Consumption (gpd)
Oak River Ranch	2130031	Unknown
Squaw Creek Subdivision Water System	2130021	0.032
Sunset Park Subdivision	2130022	0.024

4. The public water systems are organized by Certificates of Convenience and Necessity (CCNs) that are issued by the TCEQ. The CCNs authorize a utility to provide water and/or sewage service to a specific area. The CCNs associated with the public water systems shown in Table 2.5-20 are provided in the table below, along with locations. The distance and direction from the CPNPP centerpoint was determined based on shapefiles provided by the TCEQ and the TWDB.

CCN #	CCN Name	Public Water System Name	PWS #	Distance from CPNPP	Location
10904	City of Granbury	City of Granbury	1110001	8 mi N	City of Granbury
		Summerlin Addition (Merged/Annexed with City of Granbury)			
11077	Sky Harbour WSC	Sky Harbour WSC	1110016	13.2 mi NNE	North of Granbury on the north side of LG
11157	Aqua Texas Inc.	Bentwater on Lake Granbury	1110116	2.8 mi E	Between CPNPP and SH 144
		Brazos River Acres	1110028		
		Country Meadows Subdivision	1110089		
		Eastwood Village	1110052		
		Hunterwoods Subdivision Water System	1110083		
		Lake County Acres	1110059		
		Mallard Pointe Subdivision	1110112		
		Midhaven Estates	1110094		
		Mountain View Subdivision	1110035		
		Nolan Creek Estates	1110080		

CCN #	CCN Name	Public Water System Name	PWS #	Distance from CPNPP	Location
		North Fork Creek	1110074		
		North Fork Creek II	1110088		
		Peninsula Addition	1110115		
		River Country Acres	1110045		
		Rock Harbor Estates	1110024		
		Sunchase Meadows	1110087		
		Sunset Acres Mobile Home Park	1110077		
		Whipporwill Bay Subdivision	1110027		
		Lakeside Hills (Merged/Annexed with Hunterwood Subdivision Water System)			
11306	Rain Water Supply Corporation	Rain WSC	1110037	11.6 mi N	North of Granbury and south of LG
11468	CPN Water Works Company	Comanche Peak North	1110050	10.1 mi NNE	East of Granbury and LG
		Scenic Ridge Addition	1110098		
		Shady Grove Subdivision	1110085		
11603	Mooreland Water Co.	Mooreland Water Co.	1110006	8.3 mi N	South of western portion of Granbury
11609	Laguna Tres LTD	Laguna Tres Subdivision	1110019	12.4 mi N	North of Granbury on the north side of LG
		South Harbor Subdivision	1110056		
11983	Laguna Vista LTD	Laguna Vista Subdivision	1110095	13.2 mi	North of Granbury on the north side of LG
12037	Crest Water Company	Oak River Ranch	2130031	7.5 mi SE	Southeast of Rainbow
12055	Sunset Park Addition	Sunset Park Subdivision	2130022	4.6 mi S	West of Glen Rose
12088	Mesa Grande	Mesa Grande WSC	1110018	11.6 mi N	North of Granbury

CCN #	CCN Name	Public Water System Name	PWS #	Distance from CPNPP	Location
	WSC				on the south side of LG
12283	City of Lipan	City of Lipan	1110011	20 mi NW	City of Lipan
12724	Rolling Hills Water Service Inc.	Rolling Hills Water Service Inc.	1110032	16.1 mi NNE	North of Oak Trails Shores CDP and LG
12809	Texas H2O Inc.	Boynton Water Co.	1110042	6.9 mi NE	South of Granbury and LG
		Canyon Creek Addition	1110070		
		Long Creek Water Co.	1110017		
		Ridge Utilities Inc.	1110084		
		Sunset Canyon Water Moore Estates	1110102		
12884	Fall Creek Utility Company	Fall Creek Utility Company	1110114	8.7 mi NE	North of Pecan Plantation and east of LG
12895	Cheyenne Hills Water Supply	Cheyenne Hills Water Supply	2130035	8.5 mi SE	East of Rainbow
12902	Aqua Texas Inc.	Greenfields on Squaw Creek	2130036	2.8 mi SE	Southeast of CPNPP and north of Glen Rose
		Squaw Creek Subdivision Water System	2130021		
12971	Acton MUD	Acton MUD	1110007	7.5 mi NE	In Pecan Plantation and east of Granbury
12983	Monarch Utilities I LP	Acton Water Co. Royal Oaks	1110055	6.7 mi N	In and around Granbury
		Comanche Cove & Heritage Heights	1110060		
		Comanche Harbor & Port Ocall	1110022		
		Granbury Acres Water System	1110109		
		Hideaway Bay Estates	1110002		
		Montego Bay Estates	1110044		

CCN #	CCN Name	Public Water System Name	PWS #	Distance from CPNPP	Location
		Oak Trail Shores	1110004		
		Rancho Brazos Subdivision	1110036		
		Western Hills Harbor	1110005		
		Arrowhead Shores (Merged/Annexed with Oak Trail Shores)			
O0858	Hood County Utilities Inc.	Blue Water Shores	1110079	8.2 mi NE	North of Pecan Plantation and east of LG
O0858	Hood County Utilities Inc.	River Run Subdivision	1110076	9.7 mi NE	North of Pecan Plantation and east of LG
P0026	Brazos River Authority	Brazos River Authority Lake Granbury SWATS	1110100	11 mi NE	East of LG and north of Pecan Plantation
P0651	City of Glen Rose	City of Glen Rose	2130001	3.7 mi SE	City of Glen Rose
P0835	City of Tolar	City of Tolar	1110012	8.9 mi NW	City of Tolar
N/A	N/A	Country Meadows	2130008	13.6 mi NE	Northeast of Granbury
N/A	N/A	Happy Hill Farm	2130009	4.5 mi E	Between SH 144 and the Brazos River

Of the water systems described above, seven water systems serve municipalities. Acton MUD serves the City of Granbury and Pecan Plantation CDP in addition to the following residential areas (see attachment):

- Bluffs
- DeCordova Bend Estates
- DeCordova Hills
- D. R. Bales Addition
- Enchanted Village - LPWWS
- Forest Oaks
- Fountain Village

- Grand Harbor
- Grande Cove
- Gran Tera
- Holiday Estates
- Indian Harbor
- Kemah Ct. Addition
- Lakes of Timber Cove - LPWWS
- Main Place
- Nassau Bay
- Port Ridglea
- Ranches of DeCordova
- Rollins Addition
- Secluded Oaks
- Stewart Oaks
- Stoney Creek - LPWWS
- The Trees
- Thistle Ridge
- Timber Cove - LPWWS
- Treaty Oaks - Sewer provided by Aqua Texas
- Walnut Creek
- Wildwood Estates
- Willow Ridge

The Brazos River Authority Lake Granbury Surface Water and Treatment System serves the city of Granbury, Acton MUD, the city of Keene, Johnson County Fresh Water Supply District No. 1, and Johnson County Special Utility District (see attachment). The city of Granbury water system, the city of Tolar water system, the city of Lipan water system, and the city of Glen Rose water system serve their respective municipalities. Monarch Utilities I LP serves the city of Granbury. The remaining water systems in the table serve RV parks, subdivisions, and other residential areas outside city limits.

5b. The maximum capacity and average usage for the wastewater treatment plants is provided in Subsection 2.5.2.7.1. The number of connections is not relevant to wastewater treatment. The wastewater treatment plants listed serve their respective municipalities. The Glen Rose wastewater treatment plant serves the city of Glen Rose and handles both sanitary sewage and storm water runoff. It has a peak usage of 400,000 gpd. The City of Lipan wastewater treatment plant has a capacity of 100,000 gpd with a

peak usage of 20,000 gpd. It does not handle storm water runoff. The Tolar wastewater treatment plant has a peak usage of 85,000 gpd, and is a sanitary sewage system that does not handle storm water runoff. The Granbury wastewater treatment plant also does not handle storm water runoff and has a peak usage of 1.1-1.2 million gpd.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: SOC-16 (4.4.1.3-1)

Provide the following information about construction period impacts to transportation:

1. The construction-period impacts to local traffic identified in the 1987 traffic study referenced in Section 4.4.1.3 of the ER (and a copy of that document, if possible)

2. A detailed description of any improvements made in terms of traffic signals, widened lanes, and additional signage after the 1987 traffic study

3. Projected Level of Service for the road segments and intersections mentioned under Section 2.5.2.2.3 (above) during shift change times during the peak construction period for CPNPP Units 3 and 4, taking into account the presence of Unit 1 and 2 operations workers and the periodic presence of Unit 1 and 2 outage workers.

ANSWER:

1. The 1987 traffic by DeShazo, Starek, and Tang is provided as an attachment as part of the response for this request.

2. Improvements to roads such as traffic signals, widened lanes, or additional signage were made to FM 56 at the site access road in response to suggestions made in the 1987 traffic study. A detailed description of the widened lanes on FM 56 is discussed in the RAI response to SOC-04.

3. The maximum number of workers involved in peak hour morning and evening shift changes due to the operations of CPNPP Units 1 and 2 are as follows. Assuming a single worker per vehicle, the maximum number of vehicles involved in peak morning shift changes for CPNPP Units 1 and 2 is approximately 900 vehicles on an average day, with the peak afternoon/evening number at approximately 200 vehicles. All other hours are approximately 100 vehicles. These vehicle numbers include all people going in and out of the plant, including cars, trucks, and deliveries. During outages the number of vehicles increases. During a standard outage there are 1600 vehicles during the peak morning shift change, 400 vehicles for peak afternoon/evening, and 150 vehicles at all other hours. During a large outage, there are 3000 vehicles during the peak morning shift change, 1200 vehicles for peak afternoon/evening, and 800 vehicles at all other hours.

During the construction of CPNPP Units 3 and 4, additional workers are onsite as described in Subsection 4.4.1.3. An additional 2601 vehicle are expected, with 60 daily truck deliveries. As described in Subsection

4.4.1.3, it is anticipated that there will be one shift during construction. The total number of vehicles, combining the operational staff for Units 1 and 2, onsite workforce for Units 3 and 4, and outage workers, is approximately 5100 vehicles. The peak morning total, including outage workers, is approximately 4400 vehicles. FM 51 and FM 56 have a LOS A as mentioned in Subsection 2.5.2.2.3. Further discussion regarding LOS is discussed in RAI SOC-05.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: SOC-23 (5.8.1.1-1)

Provide the following information about the operations period workforce:

1. A revised ER text explaining why CPNPP Units 3 and 4 require only 550 operations workers while CPNPP Units 1 and 2 are using 1,000 workers.

2. The maximum number of workers involved in peak hour morning and evening shift changes during the operations period.

3. The daily number of operations-related deliveries expected for CPNPP Units 3 and 4.

ANSWER:

The difference in workers is chiefly attributable to the difference in reactor type. While CPNPP Units 1 and 2 use Westinghouse technology from the early 1970's, the US-APWR uses subsequent advancements in digital technology which significantly increase the use of digital instrumentation and control equipment. Additionally, the US-APWR uses lesson-learned from world-wide plant operating history resulting in improvements in equipment availability and reliability. Collectively, these enhancements have reduced maintenance, surveillance, and operations activities and have reduced the need for many support staff. Some of the support staff from CPNPP Units 1 and 2 will also support the operation of CPNPP Units 3 and 4. The number of licensed operators will remain the same for CPNPP Units 3 and 4 as it is for CPNPP Units 1 and 2.

The maximum number of workers involved in peak morning shift changes for CPNPP Units 1 and 2 is approximately 900 people on an average day, with an afternoon/evening peak number of approximately 200 workers. During outages, the number of workers increases. During a standard outage there are 1600 workers during the peak morning shift change and 400 workers for afternoon/evening peak times.

The daily number of operations-related deliveries for Units 1 and 2 is approximately 15. During outages this would increase to approximately 45 per day. The daily number of operations-related deliveries for Units 3 and 4 is anticipated to be similar to Units 1 and 2.

Impact on R-COLA

None.

Impact on S-COLA

None.

Impact on DCD

None.

QUESTION NO.: TE-03 (2.2.2-3)

Provide copies of the following documents that were made available at the site visit: (1) Vegetation Management Guidelines, June 2004 (internal, Oncor elect. delivery); (2) Transmission Line Engineering Standards – Construction, 720-003 Construction Specification for Transmission Line Right-of-Way Clearing, 8/7/07, pp. 1-9; (3) Oncor Electric Delivery Co., Overhead Electric Environmental Guidelines for Small-Scale Construction/Maintenance Projects, Rev. 3, Feb. 2008, Cover page & Guideline 1-10; (4) Oncor Electric Delivery Co., Overhead Electric Environmental Guidelines for Vegetative Maintenance on Right-of-Way and Company Facilities, Rev. 3, Feb. 2008, Cover page & Guideline 1-9; (5) Oncor Electric Delivery Co. LLC, Electric & Transmission Line Projects Disturbing 5 or More Acres, Storm Water Pollution Prevention Plan, Example Only EHST Project Number 00- 0000 March 2009.

ANSWER:

All five of the requested documents are attached, including a more current revision (June, 2007) of document (1). Documents (1), (3), (4), and (5) are proprietary and are supported by affidavits. Document (2) is being sent without any restrictions.

Impact on R-COLA

None.

Impact on S-COLA

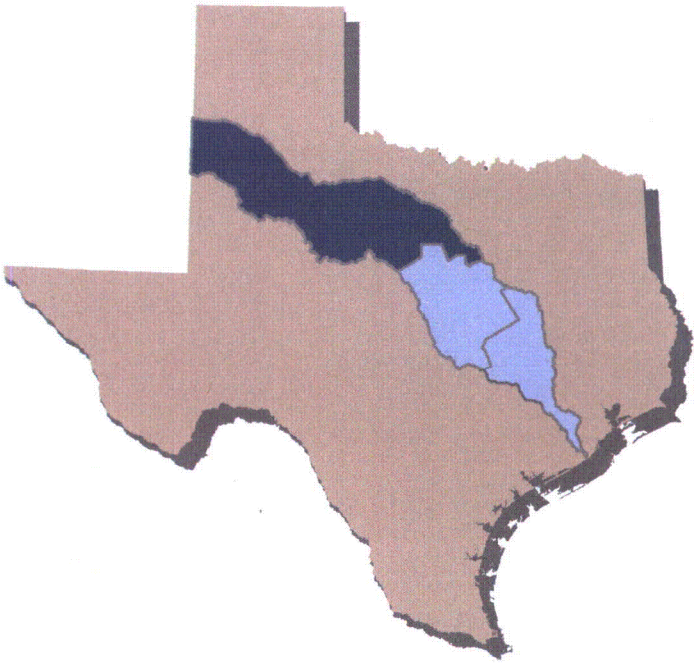
None.

Impact on DCD

None.

ENCLOSURE 5

UPPER BASIN



DESCRIPTION

The Upper Basin Region focuses on customer needs through new and existing projects. The Upper Basin includes existing Authority projects: Possum Kingdom Lake, Lake Granbury, the Lake Granbury Surface Water and Treatment System (SWATS) and the West Central Brazos Water Distribution System (WCBWDS). New initiatives are outlined below and are being pursued through our Regional Business Development and Government and Customer Relations staff, and with support from Technical Services and Strategic Planning.

MAJOR INITIATIVES

- Pursue Regional Water & Wastewater solutions throughout the Upper Basin
- Restore capacity and increase water quality through retrofit of SWATS facilities
- Graham Flood Control project
- Lake Granbury Watershed Protection Plan
- Canal Construction Specification Study
- Implement & oversee property management at Possum Kingdom
- Coordination of Flood Protection Planning Study (Hood & Parker Co.)
- Secure Hydro Agreement

UPPER BASIN MANAGEMENT

DESCRIPTION

The Upper Basin Management department provides leadership and management for one of three major geographic regions of the Brazos River Basin. The responsibilities include management of water systems, lakes, properties, dams and special projects. Management also develops and distributes water supplies, works to develop alternate sources of water supply including groundwater and pipelines, monitors water quality, promotes recreation and water conservation through community education programs, administers contracts with regional system customers and identifies and meets customers needs through business development, governmental and customer relations, and technical assistance. Upper Basin Environmental Services is also included in this department.

ACCOMPLISHMENTS FOR 2007

- Completed concrete repair on Powerhouse walls, around penstocks, and in stilling basin. Completed repair on strut beam seats and construction complete on RSMU water line
- Completed Golden Algae study; final report submitted to EPA
- Progressive movement towards restoration of SWATS Facility to original design capacity through replacement of membranes, installation of new membranes, and addition of new 30" raw water line
- Completed Phase I & II of Property Acquisition Relocation for Graham Flood Control project.
- Identified and pursued business development opportunities within the region.
- Protected and preserved PK Reservoir and the Authority's interests to the best of its ability.
- Awarded contract to engineering firm for LG Canal Construction Specifications study.
- Increased raw water sales

OBJECTIVES FOR 2008

- Complete Phase II & III of Canal Construction Specifications study
- Continue property acquisition, design and implement Flood Warning System for Graham Flood Control Project
- Pursue business development opportunities
- Continue Lake Granbury Watershed Protection Plan
- Coordinate Flood Protection Planning Study at LG with Water Services, FEMA, local municipalities, Hood and Parker Counties
- Continue Phase II ESP Project at PK Lake to include penstock exterior rehab, design and pre-fabrication of pier 8 stairway components
- Implement and oversee property management at PK
- Participate in the Brazos River Natural Chloride Control Project
- Assist marinas at PK and Lake Granbury with the Clean Texas Marina Program and Clean Water Sticker Program
- Secure Hydro agreement with BEPC

SIGNIFICANT CHANGES/COMMENTS

The Brazos River Authority is progressively pursuing studies (Canal Construction Specification & Flood Protection Planning) that will provide quality and quantifiable data and information for the administration and future decisions with regard to lakeside development at Lake Granbury. The Authority's Board and staff have addressed PK property management issues attempting to preserve and protect the Authority and its customers, in light of the legislative divestiture issue of the Authority's leased property at PK.

LAKE GRANBURY SURFACE WATER AND TREATMENT SYSTEM (SWATS)

DESCRIPTION

The Lake Granbury Surface Water and Treatment System (SWATS), located adjacent to Lake Granbury, began operation in 1989. It currently maintains a 10.5 million-gallon-per-day treatment capacity using the ultrafiltration membrane and reverse osmosis systems to remove the chloride and sulfate content. The SWATS facility also includes an intake structure, pumping station, treatment plant and a 25 mile pipeline to transport water to some of the participants. The 5MGD Electrodialysis Reversal (EDR) system continues to be out of service due to previous fires. The Brazos River Authority (Authority) owns and operates SWATS under contract with its participants, Johnson County Fresh Water Supply District No. 1, Johnson County Special Utility District, the City of Granbury, Acton Municipal Utility District, and the City of Keene.

ACCOMPLISHMENTS FOR 2007

- Produced a safe and potable water supply
- Met the water usage needs of participants
- Reduced TTHM's and HAA5's.
- Changed cleaning chemicals in the RO system, which has helped clean the membranes more effectively, and will help reduce the cost of cleaning chemicals.
- Reduced the number of chemical CIP's in the UF system, reducing chemical costs in this area. This was accomplished by adding chloramines ahead of the UF system.

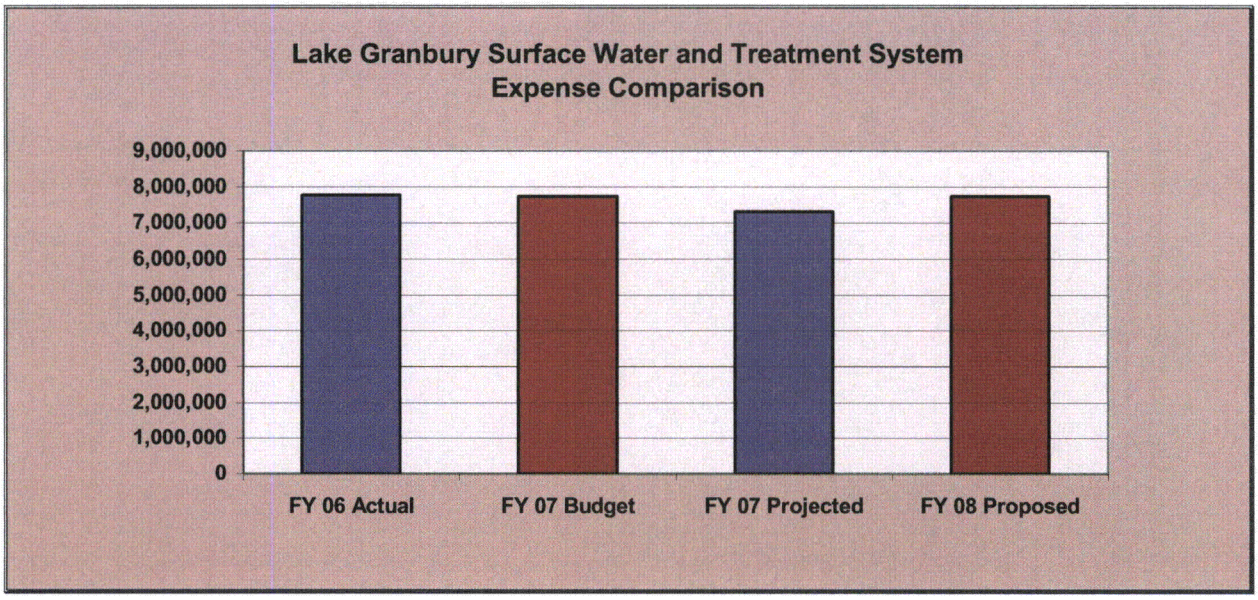
OBJECTIVES FOR 2008

- Produce a safe and potable water supply to customers
- Meet daily water usage demands of customers during drought conditions
- Try to eliminate lime from the treatment process.
- Optimize treatment and reduce the organic load on the plant to continually reduce the TTHM, HAA5, and TOC parameters, through improved UF/RO performance.
- Install a 5th UF rack.
- Install a 5th RO skid.
- Install a dual Raw Water line.

SIGNIFICANT CHANGES/COMMENTS

Last year was an unusually dry year. Due to this, actual flows were up from the previous years, and exceeded our flow estimations. Additionally, some customers relied on their wells to a greater degree than before.

Raw Water Usage (mgd)	Actual FY2005	Actual FY2006	Estimated FY2007	Budgeted FY2007	Projected FY2008
Average Flow	5.916	6.062	5.959	5.959	4.964
Peak Flow	11.169	12.178	9.318	9.318	9.281
Total Flow (mgd)	2,159.383	2,209.133	2,484.000	2,484.000	2,259.000



Budget	FY2006 Actual	FY2007 Budget	FY2007 Projected	FY2008 Proposed
Salaries	640,150	680,255	641,736	678,513
Benefits	214,202	270,094	204,313	248,557
Materials & Supplies	1,052,311	1,004,569	764,820	860,533
Utilities	849,270	950,000	830,257	789,251
Outside Services	82,392	136,356	130,211	174,807
Repair & Maintenance	427,496	406,563	483,281	535,948
Rent	72	1,000	1,265	1,000
Travel	11,247	7,142	7,283	7,380
Employee Development	18,924	13,545	16,380	17,035
Regulatory	5,027	9,655	9,655	9,655
Landfill/Sludge Hauling	286,795	230,800	230,800	236,120
Miscellaneous Operating	1,044	500	1,000	1,000
Sub-total	**3,588,930**	**3,710,479**	**3,321,001**	**3,559,799**
Direct Labor	24,243	45,254	7,119	46,036
Overhead	197,240	201,503	186,399	208,053
Sub-total	**3,810,413**	**3,957,236**	**3,514,519**	**3,813,888**
Capital Outlay	150,969	29,500	41,603	166,000
Debt Service	3,814,714	3,753,668	3,753,668	3,753,211
TOTAL	**7,776,096**	**7,740,404**	**7,309,790**	**7,733,099**
O & M Management Fee	198,069	199,337	177,806	198,994
Debt Management Fee	19,074	18,768	18,768	18,766

POSSUM KINGDOM HYDROELECTRIC

DESCRIPTION

A total generating capacity of 24.0 Megawatts is available from two (2) original equipment turbine/generators installed in 1940. A 50-year Federal Energy Regulatory Commission (FERC) license expired in 1989, along with a long-term contract with our wholesale power customer, Brazos Electric Power Cooperative (BEPC). A new 30-year contract based on cost-of-service was negotiated with BEPC under the rate-setting authority of the Public Utility Commission of Texas (PUC). This corresponded with a new 30-year FERC licensing period that will expire in 2019. This contract has not produced adequate revenue in recent years. On June 15, 2001, the Brazos River Authority (Authority) was approved as a Power Generation Company by the PUC. The action essentially deregulates the Authority's power generation, releasing us from PUC oversight.

The power plant is manned 24 hours a day, with a single operator on duty for each 8-hour shift. In addition to operating duties, the power plant staff is responsible for equipment maintenance and record keeping, assisting with the coordination of flood operations, and responding to public information inquiries. They also coordinate low flow releases and monitor dissolved oxygen content in the river as a part of the FERC license requirements.

ACCOMPLISHMENTS FOR 2007

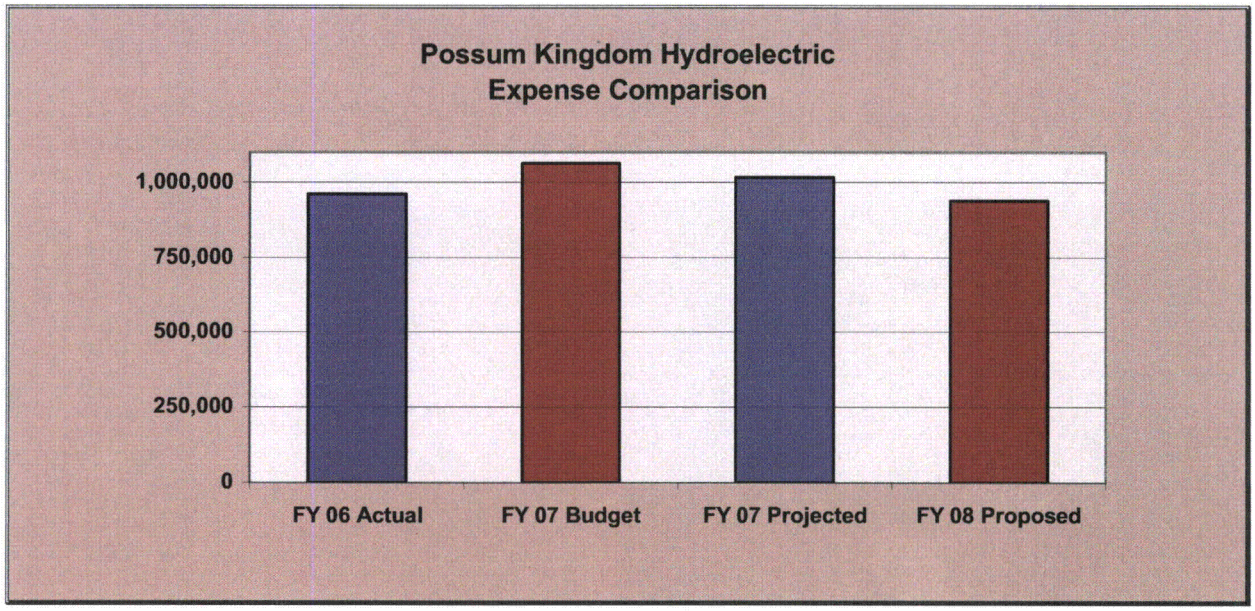
- Total power delivered in 2006 was 9,912.0 MW, YTD in 2007 is 3,612.2 MW for the same period in 2006
- Repair work on deteriorating walls of the Power Plant is in progress and is nearing completion

OBJECTIVES FOR 2008

- Complete engineering study and repair of the turbine draft tubes
- Replace obsolete cooling water controls and other operational controls

SIGNIFICANT CHANGES/COMMENTS

In September 2003, a Memorandum of Understanding (MOU) and a Letter of Agreement (LOA) was signed between the Authority and BEPC to address rehabilitation needs of the hydropower facility and to adjust wholesale power purchase rates in order to generate a positive financial operating margin. Through the negotiation process it was determined that a lease type arrangement with BEPC would be more advantageous for both parties. These negotiations are continuing at this time.



Budget	FY2006 Actual	FY2007 Budget	FY2007 Projected	FY2008 Proposed
Salaries	231,110	239,955	236,360	248,130
Benefits	86,895	100,878	83,518	88,671
Materials & Supplies	8,686	14,343	12,000	7,843
Utilities	1,722	2,000	1,765	2,000
Outside Services	131,895	257,173	256,090	54,149
Repair & Maintenance	53,091	43,745	46,122	35,745
Rent	66	-	-	-
Travel	13	-	198	-
Employee Development	5,821	6,751	6,000	6,751
Regulatory	139,751	107,360	100,168	108,224
Miscellaneous Operating	-	-	-	-
Sub-total	**659,050**	**772,205**	**742,221**	**551,513**
Direct Labor	57,755	47,044	34,272	80,042
Overhead	81,709	81,787	77,930	91,469
Sub-total	**798,514**	**901,036**	**854,423**	**723,024**
Capital Outlay	-	-	-	45,000
Debt Service	162,515	161,871	161,871	170,593
Total	**961,029**	**1,062,907**	**1,016,294**	**938,617**

WEST CENTRAL BRAZOS WATER DISTRIBUTION SYSTEM

DESCRIPTION

The West Central Brazos Water Distribution System (WCBWDS) consists of approximately eighty (80) miles of below-ground pipeline predominately located in Stephens County. The pipeline was constructed in four phases from 1973 through 1985 by Kerr-McGee Oil & Gas Onshore to transport raw water from Possum Kingdom Lake to various take points to support oil recovery flood operations. The pipeline diameters vary in size from 12 inches to 36 inches. In 2002, Kerr-McGee Oil & Gas Onshore sold the pipeline system and the associated Right-of-Way to the Brazos River Authority (Authority). The Authority plans to utilize the pipeline system to transport water from Possum Kingdom Lake to communities within the West Central Brazos Basin to address future water needs as well as to continue to support oil recovery flood operations. Improvements to the pipeline system are ongoing and will continue as needed to bring the pipeline system to full operational status while meeting the water regulations of the Texas Commission on Environmental Quality (TCEQ). As future water demands increase, the pipeline system will need to undergo major upgrades and rehabilitation to adequately convey the projected demands. These improvements will occur in phases as the water demands increase.

ACCOMPLISHMENTS FOR 2007

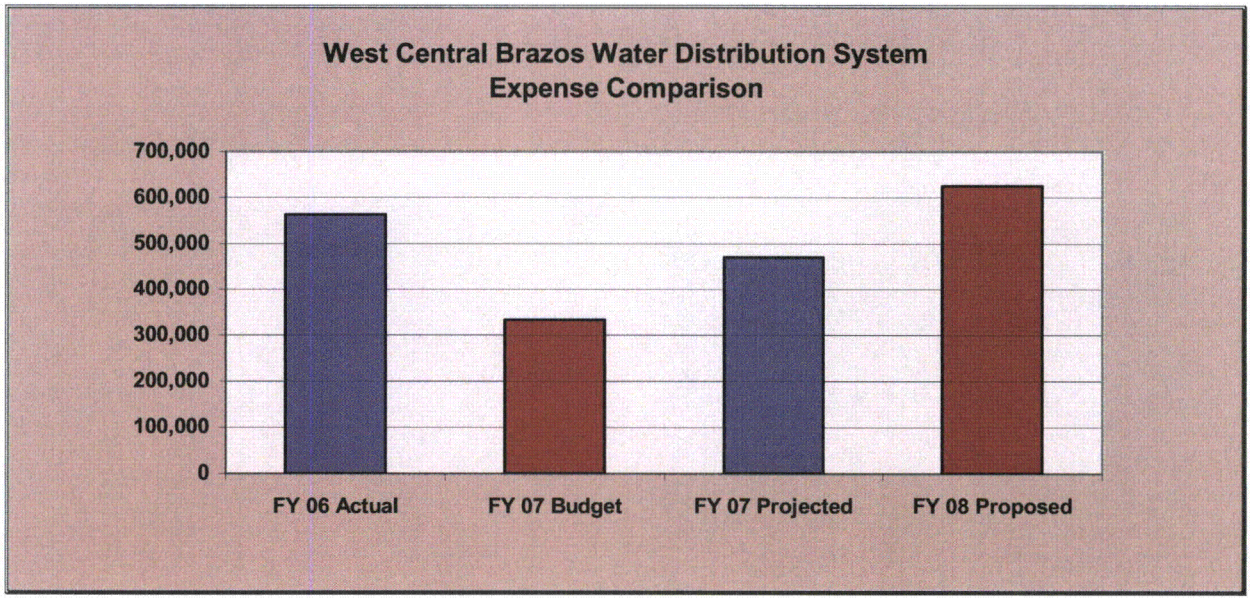
- Completed repair on ten major line leaks, four tap leaks and one air eliminator
- Installed back-up pump at Veale Park and completed repair to the original pump
- Installed new pressure system at Lake Station
- Built and installed restroom and septic system at Veale Park
- Completed S.C.A.D.A. project

OBJECTIVES FOR 2008

- Continue to repair major leaks and rehabilitate portions of system identified during field testing
- Install new pump building
- Upgrade pumps and install a VFD on the Ranger line
- Re-route Statex line
- Re-instate the Right of Way program

SIGNIFICANT CHANGES/COMMENTS

The WCBWDS has been identified in the 2004 West Central Brazos Water Study as a major strategy to provide short and long term raw water needs to communities such as Abilene, West Central Texas Municipal Water District, City of Breckenridge, Stephens County Rural WSC, and Shackelford WSC just to name a few. Therefore, significant steps will be taken to ensure that adequate equipment is provided to ensure continued operations of the pipeline.



Budget	FY2006 Actual	FY2007 Budget	FY2007 Projected	FY2008 Proposed
Salaries	36,103	39,507	46,087	45,898
Benefits	12,727	13,727	14,010	14,429
Materials & Supplies	22,125	11,448	17,700	29,326
Utilities	209,279	142,200	254,377	270,700
Outside Services	4,017	3,863	3,747	4,053
Repair & Maintenance	75,891	50,270	69,000	75,020
Rent	8,802	5,000	5,000	5,000
Travel	3,819	3,800	3,300	3,800
Employee Development	718	-	-	60
Regulatory	-	-	-	-
Miscellaneous Operating	-	-	-	-
Sub-total	**373,481**	**269,815**	**413,221**	**448,286**
Direct Labor	21,505	42,950	26,014	69,204
Overhead	15,439	19,656	19,246	26,132
Sub-total	**410,425**	**332,421**	**458,481**	**543,622**
Capital Outlay	153,467	-	12,587	81,938
Debt Service	-	-	-	-
Total	**563,892**	**332,421**	**471,068**	**625,560**

Brazos River Authority

Quality • Conservation • Service

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ENCLOSURE 6

Our Staff is available to assist you

Monday Through Friday
8:00 am to 4:30pm

Acton Municipal Utility District

2001 Fall Creek Highway
Granbury, Texas 76049-7927
phone: **817-326-4720** fax: **817-326-5031**

Home

AMUD SERVICE AREA

The District is a Municipal Utility District created by the Texas Water Commission on July 21, 1982 and confirmed by an election held with the District on August 14, 1982.

The rights, powers, privileges, authority and functions of the District are established by the general laws of the State of Texas pertaining to Municipal Utility Districts, particularly Chapter 54 of the Texas Water Code, as amended.

The District is composed of a number of subdivisions, scattered individual residents and undeveloped agricultural lands surrounding the southern portion of Lake Granbury and along that portion of Brazos River which flows from Lake Granbury.

Acton Municipal Utility District (AMUD), maintains water systems for portions of Hood County and Johnson County; including the subdivisions listed here.

Water	Sewer	Subdivision
Yes	Yes	Bluffs
Yes	Yes	DeCordova Bend Estates
Yes	Yes	DeCordova Hills
Yes	No	D. R. Bales Addition
Yes	Yes	Enchanted Village - LPWWS
Yes	No	Forest Oaks
Yes	Yes	Fountain Village
Yes	No	Grand Harbor
Yes	No	Grande Cove
Yes	No	Gran Tera
Yes	No	Holiday Estates
Yes	No	Indian Harbor
Yes	Yes	Kemah Ct. Addition
Yes	Yes	Lakes of Timber Cove - LPWWS
Yes	Yes	Main Place
Yes	No	Nassau Bay
Yes	Partial	Pecan Plantation
Yes	No	Port Ridglea
Yes	Partial	Ranches of DeCordova
Yes	Yes	Rollins Addition
Yes	No	Secluded Oaks
Yes	No	Stewart Oaks
Yes	Yes	Stoney Creek - LPWWS
Yes	No	The Trees
Yes	No	Thistle Ridge
Yes	Yes	Timber Cove - LPWWS
Yes	No	Treaty Oaks - Sewer provided by Aqua Texas
Yes	No	Walnut Creek
Yes	No	Wildwood Estates
Yes	Yes	Willow Ridge

Please call the office at (817) 326-4720, to verify AMUD district boundaries and for individual lots locations.

Send email to the WEB MANAGER with questions or comments about this web site.

Last modified: November 26, 2008