



Control Number: 42866



Item Number: 86

Addendum StartPage: 0

SOAH DOCKET NO. 473-14-5144.WS  
PUC DOCKET NO. 42866

PETITION OF TRAVIS COUNTY	§	BEFORE THE STATE OFFICE
MUNICIPAL UTILITY DISTRICT NO. 12	§	
APPEALING CHANGE OF WHOLESALE	§	
WATER RATES IMPLEMENTED BY	§	
WEST TRAVIS COUNTY PUBLIC	§	OF
UTILITY AGENCY, AND THE CITY OF	§	
BEE CAVE, TEXAS, HAYS COUNTY,	§	
TEXAS AND WEST TRAVIS COUNTY	§	
MUNICIPAL UTILITY DISTRICT NO. 5	§	ADMINISTRATIVE HEARINGS

DIRECT TESTIMONY

OF

DONALD G. RAUSCHUBER, P.E.

ON BEHALF OF

WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY

RECEIVED  
2014 DEC 19 PM 2:30  
PUBLIC UTILITY COMMISSION  
FILING CLERK

DECEMBER 19, 2014

86

**DIRECT TESTIMONY OF  
DONALD G. RAUSCHUBER, P.E.**

**TABLE OF CONTENTS**

	Page
<b>I. WITNESS BACKGROUND AND QUALIFICATIONS.....</b>	<b>4</b>
<b>II. PURPOSE OF TESTIMONY.....</b>	<b>8</b>
<b>III. HISTORY OF WTCPUA.....</b>	<b>9</b>
<b>IV. WHOLESALE WATER TREATMENT SERVICE AGREEMENT BETWEEN LCRA/WTCPUA AND TCMUD 12 .....</b>	<b>13</b>
<b>A. TCMUD 12 Agreement .....</b>	<b>13</b>
<b>B. 2012 Amendment of TCMUD 12 Agreement.....</b>	<b>16</b>
<b>V. PREPARATION AND APPROVAL OF NOVEMBER 15, 2012 WHOLESALE WATER SERVICE RATES.....</b>	<b>18</b>
<b>VI. PREPARATION AND APPROVAL OF NOVEMBER 21, 2013 WHOLESALE WATER TREATMENT SERVICE RATES .....</b>	<b>22</b>
<b>VII. TCMUD 12 PARTICIPATION IN RATE-SETTING PROCESS.....</b>	<b>28</b>
<b>VIII. RESPONSE TO MR. DIQUINZIO'S TESTIMONY.....</b>	<b>29</b>
<b>IX. SUMMARY OF CHANGES TO WHOLESALE WATER SERVICE RATES CHARGED TO TCMUD 12.....</b>	<b>31</b>

**ATTACHMENTS**

Attachment A	General Manager Responsibilities
Attachment B	Resume
Attachment C	List of Related Experience in Water and Wastewater
Attachment D	Concurrent Ordinance
Attachment E	Map of WTCPUA Water Service Area
Attachment F	Map of WTCPUA Wastewater Service Area
Attachment G	TCMUD 12 Agreement
Attachment H	March 8, 2012, Meeting Minutes
Attachment I	March 8, 2012, Resolution
Attachment J	2012 Amendment
Attachment K	May 3, 2012, Meeting Minutes
Attachment L	November 15, 2012, Meeting Minutes
Attachment M	November 15, 2012, Rate Order

Attachment N	2012 Analysis
Attachment O	October 19 and 30, 2012, Sign-in Sheets
Attachment P	May 14, 2013, email and draft Amendment Form
Attachment Q	Resolution and Form Amendment
Attachment R	November 21, 2013, Meeting Minutes
Attachment S	November 21, 2013, Rate Order
Attachment T	November 15, 2012, Board Meeting Sign-in Sheet
Attachment U	Wholesale Customer Committee Meeting Sign-in Sheets
Attachment V	Capital Improvements Plan

1                   **I.       WITNESS BACKGROUND AND QUALIFICATIONS**

2   **Q.     PLEASE STATE YOUR NAME.**

3   A.     My name is Donald G. Rauschuber, P.E.

4   **Q.     WHAT IS YOUR OCCUPATION AND PLACE OF EMPLOYMENT?**

5   A.     I am a registered professional engineer in the state of Texas. My fields of expertise  
6           and experience are in water resources engineering and public utility management. I  
7           am employed by the West Travis County Public Utility Agency ("WTCPUA"), as  
8           General Manager. The WTCPUA offices are located at 12117 Bee Cave Road,  
9           Building 3, Suite 120, Bee Cave, Texas. I am also president and owner of Donald G.  
10          Rauschuber and Associates, Inc. ("DGRA, Inc."), Austin, Texas. In 1981, I formed  
11          DGRA, Inc., specializing in water resources engineering.

12   **Q.     WHEN DID YOU BECOME GENERAL MANAGER OF THE WTCPUA?**

13   A.     During the period from December 2011 to April 2013, I held the position of Acting  
14          General Manager of WTCPUA under a Professional Service Agreement between  
15          DGRA, Inc. and WTCPUA. In April 2013, I became the first employee of  
16          WTCPUA, holding the position of General Manager.

17   **Q.     WHAT ARE YOUR DUTIES AND RESPONSIBILITIES AS WTCPUA**  
18          **GENERAL MANAGER?**

19   A.     As WTCPUA General Manager, I am responsible for all WTCPUA administration  
20          and operation activities including, but not limited to, day-to-day supervision and  
21          management of WTCPUA operations and its staff, consultants, and contractors;  
22          overseeing the preparation of contracts, agreements and reports; managing and

1 overseeing financial activities, such as approving purchases within approved budgets;  
2 overseeing utility construction projects; assessing, coordinating, and implementing  
3 WTCPUA rates and fees; providing stewardship/education to the public regarding the  
4 WTCPUA, including serving as the WTCPUA's central point of contact; and  
5 coordinating with other governmental units.

6 **Q. HAVE YOU PREPARED AN ATTACHMENT THAT IDENTIFIES SPECIFIC**  
7 **WTCPUA ACTIVITIES FOR WHICH YOU ARE RESPONSIBLE?**

8 A. Yes. A detailed listing of my responsibilities as General Manager is attached as  
9 Attachment A.

10 **Q. WOULD YOU PLEASE SUMMARIZE YOUR EDUCATIONAL**  
11 **BACKGROUND?**

12 A. Yes. In 1970, I earned a Bachelor of Science Degree in Civil Engineering from  
13 Texas Tech University, and I earned a Master of Science in Civil Engineering from  
14 Texas Tech University in 1972.

15 **Q. DO YOU HOLD ANY PROFESSIONAL CERTIFICATIONS?**

16 A. Yes. Since August 1975, I have been a Licensed Professional Engineer in Texas,  
17 holding license number 38068.

18 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**  
19 **PROFESSIONAL EXPERIENCE.**

20 A. A summary of my educational and professional background, my Resume is attached  
21 as Attachment B.

1    **Q.    PLEASE BRIEFLY DESCRIBE YOUR WORK EXPERIENCE.**

2    A.    From 1972 to 1977, I worked for the Texas Water Development Board ("TWDB") as  
3           an Engineer and Hydrologist, focusing on the evaluation of the effects of water  
4           resource development on Texas' bay and estuary systems. Also, while at the TWDB,  
5           I performed numerous state-wide water resources planning studies, and I was a co-  
6           author of a state-wide water plan. In 1977, I joined Henningson, Durham, and  
7           Richardson, Inc., as Manager of the Austin Office, Director of the Water Resources  
8           Program, and Assistant Vice-President of the company. I managed and developed  
9           projects, environmental investigations, hydrological studies, and municipal  
10          engineering services. In 1981, I founded DGRA, Inc., where I have been a principal  
11          investigator and project manager on numerous water resources and environmental  
12          projects for the past 33 years. Since founding DGRA, Inc., I have provided water and  
13          wastewater consulting engineering services in the following fields:

- 14                 •     water and wastewater management project planning and development;
- 15                 •     water rights permitting;
- 16                 •     development and evaluation of water and wastewater rates;
- 17                 •     preparation and assessments of water and sewer certificates of  
18                       convenience and necessity ("CCN") and Sale-Transfer-Merger  
19                       ("STM") applications;
- 20                 •     water and wastewater enforcement matters before the Texas  
21                       Commission on Environmental Quality ("TCEQ") and its predecessor  
22                       agencies;
- 23                 •     formulation of developer agreements for water and sewer services  
24                       among and between political subdivisions and developers for water,  
25                       sewer and other services;
- 26                 •     water and wastewater rate and impact fee assessments and design; and
- 27                 •     municipal engineering.

1           My experience also includes preparation of water and wastewater rate studies  
2           and contracts/agreements for water and/or wastewater services between cities and  
3           developers. At DGRA, Inc., I have performed major surface and ground water rights  
4           permitting and assessment projects for the Public Utilities Board of Brownsville, Rio  
5           Grande Valley Municipal Water Authority, Sharyland Water Supply Corporation,  
6           Dallas County Park Cities Municipal Utility District, City of Irving, Lavaca-Navidad  
7           River Authority, City of Corpus Christi, High Plains Underground Water District  
8           No. 1, Upper Trinity Regional Water District, and Farm Bureau of Texas (San  
9           Antonio Segment of the Edwards Aquifer).

10           In summary, over the last four decades I have been involved with hundreds of  
11           projects on behalf of both public and private entities located throughout Texas. These  
12           projects have involved all aspects of water and wastewater development and  
13           management, water and wastewater rates, regulatory assessments and processing,  
14           contract preparations and evaluations.

15   **Q.    WOULD YOU PLEASE ELABORATE ON YOUR EXPERIENCE BEFORE**  
16   **TEXAS STATE AGENCIES REGARDING UTILITY MATTERS?**

17   A.    Yes. I have extensive experience before State agencies involving water and  
18           wastewater CCN applications, STM applications for water and wastewater systems,  
19           water and wastewater rate matters, and water rights applications. Since beginning my  
20           career in 1972, I have been qualified as an expert witness in numerous contested  
21           hearings on behalf of public and private entities before the TCEQ, the Public Utility  
22           Commission ("PUC" or "Commission") and the State Office of Administrative  
23           Hearings ("SOAH"). Also, I have been qualified as an expert witness in water  
24           resource engineering in several state and federal court cases.



1 A complete listing of these public and private clients and projects is presented  
2 in Attachment C.

3 **Q. ARE YOU FAMILIAR WITH SOAH DOCKET NO. 473-14-5144.WS,**  
4 **PUC DOCKET NO. 42866?**

5 A. Yes, I am. This docket number is the appeal filed by Travis County Municipal Utility  
6 District No. 12 ("TCMUD 12") regarding the wholesale water treatment service rates  
7 charged by WTCPUA to TCMUD 12 under a 2009 contract, as amended.

8 **II. PURPOSE OF TESTIMONY**

9 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

10 A. The purposes of my testimony are to:

- 11 1. Provide background information on the history of the WTCPUA;
- 12 2. Explain the "Wholesale Water Services Agreement between Lower Colorado  
13 River Authority and Travis County Municipal Utility District No. 12"  
14 ("TCMUD 12 Agreement"), dated October 22, 2009, and the "Agreement  
15 Regarding Transfer of Operations of the West Travis County Water System  
16 from the Lower Colorado River Authority, to the West Travis County Public  
17 Utility Agency" ("2012 Amendment"), fully executed on July 12, 2012, but  
18 effective on March 19, 2012, which amended the TCMUD 12 Agreement;
- 19 3. Describe the process used by WTCPUA in setting wholesale water treatment  
20 service rates for its wholesale customers, including TCMUD 12, which were  
21 adopted by the WTCPUA Board of Directors on November 15, 2012;
- 22 4. Describe the process used by WTCPUA in setting wholesale water treatment  
23 service rates for its wholesale customers, including TCMUD 12, which were  
24 adopted by the WTCPUA Board of Directors on November 21, 2013;
- 25 5. Describe TCMUD 12's involvement in the development of WTCPUA's  
26 November 21, 2013 wholesale water treatment service rates; and
- 27 6. Rebut various issues raised by TCMUD 12's witnesses in their direct  
28 testimonies.

## 1

2

3

7

8

10

11

14

15

SOAH DOCKET NO. 473-14-5144.WS  
PUC DOCKET NO. 42866

1   **Q.   WHAT WAS THE INITIAL GOAL OF WTCPUA?**

2   A.   After its formation, WTCPUA's primary focus was to acquire the West Travis  
3       County Regional Water and Wastewater System (the "System") from the Lower  
4       Colorado River Authority ("LCRA") to keep that System under public ownership. At  
5       that time, LCRA was in the process of selling its 32 retail water and wastewater  
6       systems, and WTCPUA desired to acquire the System. It is my understanding that  
7       the WTCPUA was the only governmental entity that was interested in purchasing this  
8       System.

9   **Q.   WAS THE WTCPUA SUCCESSFUL IN PURCHASING THE SYSTEM?**

10  A.   Yes. Through the hard work of LCRA and the WTCPUA's Board of Directors,  
11       consultants, and local legislative officials, the LCRA and WTCPUA entered into the  
12       "Utilities Installment Purchase Agreement" ("UIPA") on January 17, 2012, which in  
13       part contemplated the sale of the System.

14  **Q.   CAN YOU SUMMARIZE THE TERMS AND PROVISIONS OF THE UIPA?**

15  A.   Certainly. The UIPA sets forth the mechanisms and procedures through which  
16       WTCPUA purchased the System. In essence, WTCPUA agreed to purchase all the  
17       tangible and intangible assets and liabilities of the System through four (4)  
18       installment payments. Additionally, the UIPA provided that WTCPUA and LCRA  
19       would work together to assign over 250 agreements from LCRA to WTCPUA that  
20       pertained to the provision of ongoing and future wholesale and retail water and  
21       wastewater services from the System. The UIPA provided that WTCPUA would take  
22       over operations of the System on March 19, 2012.

1   **Q.   HOW MANY EMPLOYEES DID WTCPUA HAVE ON MARCH 19, 2012,**  
2       **THE DATE THE SYSTEM WAS TRANSFERRED FROM LCRA TO**  
3       **WTCPUA?**

4   A.   None. It was run by the Board of Directors and a handful of consultants, including  
5       myself, a bookkeeper, an engineer, general counsel, bond counsel, financial analyst,  
6       rate consultant, and Severn Trent, the WTCPUA's system operator.

7   **Q.   WHAT TYPES OF UTILITY SERVICES DOES WTCPUA PROVIDE TO ITS**  
8       **CUSTOMERS?**

9   A.   WTCPUA provides the following services:

- 10       1.    retail water service;
- 11       2.    retail sewer service;
- 12       3.    wholesale water treatment service (treating a customer's raw water to potable  
13           water quality);
- 14       4.    wholesale water service (treating WTCPUA's raw water to potable water  
15           quality);
- 16       5.    raw water service (for irrigation purposes);
- 17       6.    treated effluent service (for irrigation purposes);
- 18       7.    emergency water service;
- 19       8.    sewer billing services; and
- 20       9.    wholesale sewer service.

21   **Q.   HOW MANY RETAIL WATER CUSTOMERS DOES THE WTCPUA HAVE**  
22       **TODAY?**

23   A.   Currently, WTCPUA has approximately 6,500 retail water customers located in  
24       western Travis and northern Hays Counties, as shown in Attachment E.

1    **Q.    HOW MANY RETAIL SEWER CUSTOMERS DOES THE WTCPUA HAVE**  
2       **TODAY?**

3    A.    In November 2014, the WTCPUA served approximately 2,100 retail sewer customers  
4       exclusively located within the City of Bee Cave's corporate limits and extraterritorial  
5       jurisdiction, as shown in Attachment F.

6    **Q.    HOW MANY WHOLESALE WATER SERVICE AND WHOLESALE**  
7       **WATER TREATMENT SERVICE CUSTOMERS DID THE WTCPUA HAVE**  
8       **ON NOVEMBER 21, 2013?**

9    A.    Thirteen.

10   **Q.    WHO ARE THOSE CUSTOMERS?**

11   A.    As of November 21, 2013, WTCPUA had the following 13 wholesale water service  
12       and wholesale water treatment service customers:

- 13       1.     Barton Creek West Water Supply Corporation;
- 14       2.     Crystal Mountain Home Owners Association;
- 15       3.     Deer Creek Ranch Water Company;
- 16       4.     Dripping Springs Water Supply Corporation;
- 17       5.     Eanes Independent School District;
- 18       6.     Hays County Water Control and Improvement District ("WCID") No. 1;
- 19       7.     Hays County WCID No. 2;
- 20       8.     Lazy Nine Municipal Utility District ("MUD");
- 21       9.     Reunion Ranch – Hays County WCID;
- 22       10.    Senna Hills MUD;
- 23       11.    Travis County MUD 12;
- 24       12.    Travis County MUD 18; and

1           13.     City of Dripping Springs.

2           **IV.     WHOLESALE WATER TREATMENT SERVICE AGREEMENT**  
3                       **BETWEEN LCRA/WTCPUA AND TCMUD 12**

4           **A.     TCMUD 12 Agreement**

5   **Q.     ARE YOU FAMILIAR WITH THE TCMUD 12 AGREEMENT?**

6   A.     Yes.   The TCMUD 12 Agreement is one of the approximately 250 agreements  
7           included in the UIPA that has been assigned from LCRA to WTCPUA. As General  
8           Manager of WTCPUA, I am responsible for carrying out the provisions of the  
9           TCMUD 12 Agreement, as amended. A copy of the TCMUD 12 Agreement is  
10          attached hereto as Attachment G.

11   **Q.     CAN YOU SUMMARIZE THE TERMS OF THE TCMUD 12 AGREEMENT?**

12   A.     Yes.   The TCMUD 12 Agreement provides that WTCPUA, as successor in interest to  
13           LCRA, will provide "Wholesale Water Services" to TCMUD 12. The term,  
14           "Wholesale Water Services" is defined in Section 1.01 of the TCMUD 12 Agreement  
15          as follows:

16                "Wholesale Water Services" means the diversion of raw water  
17                from the Colorado River, the transmission of the raw water to a  
18                place or places of treatment, the treatment of the water into  
19                potable form and the transmission of potable water to the  
20                Delivery Point.

21                For the remainder of my testimony, when I use the term "Wholesale Water  
22                Services," I am referring to this definition.

1    **Q.    IS WTCPUA OBLIGATED TO PROVIDE A RAW WATER SUPPLY TO**  
2           **TCMUD 12 UNDER THE TCMUD 12 AGREEMENT?**

3    A.    No. Section 3.01 of the TCMUD 12 Agreement requires TCMUD 12 to provide its  
4           own raw water supply. WTCPUA's obligation is to receive, treat, and deliver the raw  
5           water that TCMUD 12 provides to WTCPUA.

6    **Q.    CAN YOU DESCRIBE THE LEVEL OF WHOLESALE WATER SERVICES**  
7           **THAT WTCPUA IS REQUIRED TO PROVIDE TO TCMUD 12 UNDER THE**  
8           **TCMUD 12 AGREEMENT?**

9    A.    Certainly. Section 3.03(a) states that LCRA "agrees to divert, transport and treat for  
10          District No. 12 all water needed and requested by District No. 12 for the District  
11          Service Area, up to, but not in excess of (i) a peak hourly flow rate of 414,000 gallons  
12          per hour and a maximum daily flow rate of 3,980,000 gallons per day (which is  
13          presumed for this Agreement to be sufficient for up to 2,125 LUEs), or (ii) such lesser  
14          amount as LCRA may be able to supply in the event of an Emergency." LUE means  
15          living unit equivalent of water service.

16   **Q.    CAN TCMUD 12 PURCHASE WHOLESALE WATER SERVICES FROM**  
17          **ANOTHER ENTITY?**

18   A.    Yes. The TCMUD 12 Agreement is not an all-requirements contract. Specifically,  
19          the TCMUD 12 Agreement does not require TCMUD 12 to obtain all of its  
20          Wholesale Water Services exclusively from the WTCPUA. Rather, the WTCPUA is  
21          obligated to provide Wholesale Water Services to TCMUD 12, up to certain levels, to  
22          the extent requested by TCMUD 12.

1   **Q.   HOW DOES WTCPUA INVOICE TCMUD 12 FOR WHOLESALE WATER**  
2       **SERVICES UNDER THE TCMUD 12 AGREEMENT?**

3   A.   Per Sections 4.01.d. and e. of the TCMUD 12 Agreement, WTCPUA invoices  
4       TCMUD 12 monthly, charging a "Monthly Charge" and a volume charge that is  
5       based upon a flat "Volume Rate" per 1,000 gallons.

6   **Q.   WHAT DO YOU MEAN BY THE WORD "FLAT"?**

7   A.   The rate, expressed as a price per 1,000 gallons, does not change regardless of the  
8       amount of actual usage.

9   **Q.   WHAT WERE THE INITIAL MONTHLY CHARGE AND VOLUME RATE**  
10       **AMOUNTS UNDER THE TCMUD 12 AGREEMENT?**

11  A.   Sections 4.01.d. and e. of the TCMUD 12 Agreement provide that the initial Monthly  
12       Charge was \$9,430 per month, and the flat Volume Rate was \$2.40 per 1,000 gallons.

13  **Q.   DOES THE TCMUD 12 AGREEMENT PROVIDE WTCPUA WITH THE**  
14       **ABILITY TO CHANGE THE WHOLESALE WATER SERVICE RATES?**

15  A.   Yes. The TCMUD 12 Agreement defines the system costs, and provides that the  
16       rates will be charged to cover those costs, and can be changed as needed. These costs  
17       are based upon the cash needs methodology.

18  **Q.   ON MARCH 19, 2012, WHEN WTCPUA BEGAN OPERATING THE**  
19       **SYSTEM, DID WTCPUA RATIFY THE MONTHLY CHARGE AND**  
20       **VOLUME RATE FOR TCMUD 12?**

21  A.   Yes. Immediately upon acquisition of the System, the Board of Directors of  
22       WTCPUA adopted the rates that were set by LCRA, including the rates charged by  
23       WTCPUA to TCMUD 12 for Wholesale Water Services. These WTCPUA rates



1 were effective as of March 19, 2012. For TCMUD 12, the March 19, 2012 rates were  
2 the initial rates in the TCMUD 12 Agreement.

3 **B. 2012 Amendment of TCMUD 12 Agreement**

4 **Q. DID THE TCMUD 12 AGREEMENT ADDRESS WHETHER IT COULD BE**  
5 **ASSIGNED BY LCRA TO A THIRD PARTY?**

6 A. Yes. Section 7.08 of the TCMUD 12 Agreement provides that:

7 [t]his Agreement shall be assignable by LCRA to any operating  
8 affiliate of LCRA without the necessity of obtaining the  
9 consent of District No. 12 if written notice is provided to  
10 District No. 12 and the assignee agrees in writing to be liable  
11 for all obligations of LCRA and is capable of carrying out  
12 LCRA's obligation under this Agreement in all respects....  
13 Except as otherwise provided, this Agreement may not be  
14 assigned by either party to any other entity without the express  
15 written consent of either party, which consent shall not be  
16 unreasonably withheld or delayed.

17 **Q. DID WTCPUA SEEK TO HAVE THE TCMUD 12 AGREEMENT ASSIGNED**  
18 **FROM LCRA TO WTCPUA?**

19 A. Yes.

20 **Q. WHAT STEPS DID WTCPUA TAKE TO SECURE THE ASSIGNMENT OF**  
21 **THE TCMUD 12 AGREEMENT?**

22 A. Initially, at the March 8, 2012 meeting of the WTCPUA Board of Directors, the  
23 Board adopted a resolution authorizing the President to execute straightforward  
24 assignments of contracts from LCRA to WTCPUA. A copy of the March 8, 2012  
25 meeting minutes and the resolution are attached hereto as Attachments H and I,  
26 respectively. After taking over operations of the System, WTCPUA contacted  
27 TCMUD 12 to obtain TCMUD 12's consent to assignment of the TCMUD 12

1 Agreement from LCRA to WTCPUA. WTCPUA was unable to execute a simple  
2 assignment with TCMUD 12.

3 **Q. ARE YOU FAMILIAR WITH THE 2012 AMENDMENT THAT WAS FULLY**  
4 **EXECUTED ON JULY 12, 2012?**

5 A. Yes. The 2012 Amendment amended the TCMUD 12 Agreement. The 2012  
6 Amendment was fully executed by LCRA, WTCPUA, and TCMUD 12 on July 12,  
7 2012, but was effective on March 19, 2012. A copy of the 2012 Amendment is  
8 attached hereto as Attachment J.

9 **Q. IS THE 2012 AMENDMENT A SIMPLE ASSIGNMENT?**

10 A. No.

11 **Q. CAN YOU PLEASE SUMMARIZE HOW THE 2012 AMENDMENT IS NOT A**  
12 **SIMPLE ASSIGNMENT?**

13 A. Yes. First, Section 6 of the 2012 Amendment provides for only a conditional  
14 assignment of the TCMUD 12 Agreement. Second, Sections 2 and 3 also include  
15 provisions regarding the payment and crediting of connection fees.

16 **Q. CAN YOU DESCRIBE HOW THE 2012 AMENDMENT WAS APPROVED BY**  
17 **WTCPUA?**

18 A. The 2012 Amendment was the end product of significant negotiations between  
19 TCMUD 12 and LCRA/WTCPUA, with several additional terms, as discussed above.  
20 WTCPUA felt that these additional terms went above and beyond Section 7.08 of the  
21 TCMUD 12 Agreement, as well as WTCPUA's general obligations under the  
22 TCMUD 12 Agreement. Since the 2012 Amendment was not a simple assignment  
23 and contained provisions not previously approved by the Board, I had to present the

1 2012 Amendment to the Board of Directors for approval at the May 3, 2012  
2 WTCPUA meeting. For example, as noted on page 6 of the minutes of the May 3,  
3 2012 Board Meeting regarding this amendment, WTCPUA did not receive a full  
4 release of LCRA from TCMUD 12. During the discussion, the WTCPUA Board felt  
5 that it was important to obtain TCMUD 12's written assignment of the TCMUD 12  
6 Agreement, so it accepted TCMUD 12's additional provisions, instead of challenging  
7 TCMUD 12 for failing to comply with the assignment provision in Section 7.08 of  
8 the TCMUD 12 Agreement. The Board approved the Amendment at the May 3, 2012  
9 Board meeting. The Board of Directors decided to accept TCMUD 12's additional  
10 terms, approving the 2012 Amendment at that May 3, 2012 meeting. A copy of the  
11 minutes of this meeting is attached hereto as Attachment K.

12 **V. PREPARATION AND APPROVAL OF NOVEMBER 15, 2012**  
13 **WHOLESALE WATER SERVICE RATES**

14 **Q. DID WTCPUA CHANGE THE WHOLESALE WATER SERVICE RATES**  
15 **CHARGED UNDER THE TCMUD 12 AGREEMENT, AS AMENDED BY**  
16 **THE 2012 AMENDMENT, AFTER MARCH 19, 2012?**

17 A. Yes. The Board of Directors of the WTCPUA changed the Wholesale Water Service  
18 rates two times after March 19, 2012.

19 **Q. WHEN DID THE WTCPUA CHANGE THE WHOLESALE WATER**  
20 **SERVICE RATES FOR THE FIRST TIME?**

21 A. At the November 15, 2012, WTCPUA meeting, the Board of Directors adopted an  
22 order increasing the wholesale water treatment service rates for all WTCPUA  
23 wholesale water treatment service customers, including TCMUD 12. A copy of the

minutes for the November 15, 2012 WTCPUA meeting and the order regarding the rate change are attached hereto as Attachments L and M, respectively.

**Q. CAN YOU PLEASE DESCRIBE THE PROCESS THE WTCPUA WENT THROUGH IN EVALUATING ITS RATES AFTER TAKING OVER OPERATIONS OF THE SYSTEM FROM THE LCRA ON MARCH 19, 2012?**

A. Soon after taking over operations of the System on March 19, 2012, the WTCPUA had a cost of service and rate design study performed (the "2012 Analysis"). The 2012 Analysis evaluated wholesale and retail water and wastewater rates, as well as raw water delivery and treated effluent rates, utilizing the cash needs methodology. The 2012 Analysis was presented to the Board in the fall of 2012.

**Q. WHAT WERE THE RESULTS OF THE 2012 ANALYSIS?**

A. The 2012 Analysis identified in part that rates for the wholesale customers were projected to under-recover revenue requirements by 31% during fiscal year ("FY") ending September 30, 2013, and that retail customers were subsidizing wholesale customers. The 2012 Analysis recommended a 31% increase in wholesale water treatment service rates to WTCPUA's wholesale customers. A copy of the 2012 Analysis is attached hereto as Attachment N.

**Q. PRIOR TO ADOPTING THE 2012 RATES, DID WTCPUA COMMUNICATE AND/OR MEET WITH ITS WHOLESALE WATER CUSTOMERS REGARDING THE RESULTS OF THE ANALYSIS?**

A. Yes. WTCPUA's rate consultant and I met with wholesale water treatment service customers. WTCPUA held meetings with those wholesale customers on October 19

1 and 30, 2012. To be clear, I invited TCMUD 12 to those meetings. Copies of the  
2 sign-in sheets for those meetings are attached hereto as Attachment O.

3 **Q. WHEN DID THE WTCPUA BOARD OF DIRECTORS TAKE ACTION ON**  
4 **THE PROPOSED WHOLESALE WATER TREATMENT SERVICE RATE**  
5 **INCREASE FOR ITS WHOLESALE CUSTOMERS?**

6 A. The Board took action on the proposed increase on November 15, 2012.

7 **Q. DURING THAT NOVEMBER 15, 2012 BOARD MEETING, WERE ANY**  
8 **CONCERNS RAISED BY WHOLESALE CUSTOMERS OR THE PUBLIC**  
9 **REGARDING THE PROPOSED RATE INCREASE?**

10 A. Yes. I attended this Board meeting, and I heard three people provide comments to the  
11 Board of Directors of the WTCPUA, opposing the proposed wholesale rate treatment  
12 rate increase. Those comments are contained in pages 1 and 6 of the minutes attached  
13 as Attachment L.

14 **Q. CAN YOU DESCRIBE THE WTCPUA BOARD OF DIRECTORS' CHANGES**  
15 **TO WHOLESALE WATER TREATMENT SERVICE RATES AT THE**  
16 **NOVEMBER 15, 2012 BOARD MEETING?**

17 A. Yes. While the 2012 Analysis showed that wholesale customer rates would require a  
18 31% increase to meet revenue requirements under the cash needs basis, the WTCPUA  
19 Board adopted only half of the recommended increase, or 15.5%, to the WTCPUA's  
20 wholesale water treatment service rates, including the customers' minimum monthly  
21 fee as well as the volumetric rate. Accordingly, for TCMUD 12, both the Monthly  
22 Charge and flat Volume Rate for Wholesale Water Services were only increased by  
23 15.5%. The Board only increased the wholesale water treatment service rates by

1           15.5% to mitigate potential rate shock to the wholesale customers and address  
2           concerns surrounding the fairness of the wholesale customers' minimum bill.

3   **Q.   WHAT WAS THE RATE METHODOLOGY FOR WTCPUA'S WHOLESALE**  
4   **WATER TREATMENT SERVICE RATES, AS ADOPTED BY THE BOARD**  
5   **OF DIRECTORS ON NOVEMBER 15, 2012?**

6   A.   WTCPUA's Wholesale Water Service rates charged to TCMUD 12, as approved by  
7       the WTCPUA Board of Directors on November 15, 2012, only include a Monthly  
8       Charge and a flat Volume Rate. This is the same rate methodology that the  
9       WTCPUA used in setting its prior Wholesale Water Service rates to TCMUD 12 on  
10      March 19, 2012.

11   **Q.   HOW MUCH DID THE NOVEMBER 15, 2012 RATE CHANGE INCREASE**  
12   **THE MONTHLY CHARGE AND VOLUME RATE PAID BY TCMUD 12?**

13   A.   The Monthly Charge increased from \$9,430.00 to \$10,891.65, and the Volume Rate  
14      increased from \$2.40 to \$2.77 per 1,000 gallons.

15   **Q.   WHEN WERE THE WHOLESALE WATER TREATMENT SERVICE**  
16   **RATES ADOPTED ON NOVEMBER 15, 2012 EFFECTIVE?**

17   A.   January 1, 2013.

18   **Q.   WERE THESE RATES PROTESTED?**

19   A.   No.

1           **VI.       PREPARATION AND APPROVAL OF NOVEMBER 21, 2013**  
2                               **WHOLESALE WATER TREATMENT**  
3                               **SERVICE RATES**

4   **Q.     FOLLOWING THE ADOPTION OF THE 15.5% INCREASE IN**  
5           **WHOLESALE WATER TREATMENT SERVICE RATES ON**  
6           **NOVEMBER 15, 2012, DID THE WTCPUA FURTHER EVALUATE THOSE**  
7           **WHOLESALE RATES?**

8   **A.**    Yes.   At the WTCPUA meeting on January 24, 2013, the Board of Directors  
9           approved an engagement letter with Water Resources Management, LLC for a  
10          subsequent rate study to be performed. In early January 2013, the WTCPUA also  
11          formed a Wholesale Customer Committee, which I will hereafter refer to as the  
12          “Committee.”

13 **Q.     PLEASE DESCRIBE THE COMMITTEE.**

14 **A.**    The WTCPUA formed the Committee in response to concerns raised by wholesale  
15          customers surrounding the initial 15.5% wholesale water treatment service rate  
16          increase on November 15, 2012. The Committee consisted of a representative from  
17          each of the WTCPUA’s wholesale customers.

18 **Q.     WHAT WAS THE WTCPUA’S GOAL FOR THE COMMITTEE?**

19 **A.**    The WTCPUA Board of Directors and I hoped to obtain input from wholesale  
20          customers in developing future wholesale water treatment service rates, and to have  
21          an open and full dialogue between WTCPUA and its wholesale customers.

22 **Q.     DID YOU BELIEVE THAT THE COMMITTEE MET THESE GOALS?**

23 **A.**    Yes. By holding several meetings throughout 2013, WTCPUA received meaningful  
24          input from its wholesale customers and created a forum to talk with this group of

1 customers. Ultimately, the Committee's suggestions were considered and  
2 incorporated into the WTCPUA staff's recommendations for the wholesale water  
3 treatment service rates presented to the WTCPUA Board on November 21, 2013.

4 **Q. HOW DID WTCPUA INTERACT WITH THE COMMITTEE?**

5 A. WTCPUA took exhaustive measures to meet with the Committee and work with  
6 those Committee members and their other representatives to evaluate WTCPUA's  
7 wholesale rates. Specifically, the Committee and WTCPUA discussed many rate  
8 scenarios and alternatives at these meetings. Between January 2013 and May 2013  
9 we had six official Committee meetings: January 28, 2013, March 25, 2013, April 1,  
10 2013, April 9, 2013, May 6, 2013, and May 14, 2013.

11 **Q. CAN YOU PROVIDE SOME EXAMPLES OF THE FEEDBACK YOU**  
12 **RECEIVED AT THE COMMITTEE MEETINGS?**

13 A. Absolutely. At the Committee meetings, WTCPUA received feedback from  
14 Committee members regarding WTCPUA's ongoing analysis of the wholesale water  
15 service monthly fee and volumetric rate by WTCPUA's rate consultant. As a result  
16 of the feedback received, WTCPUA changed the analysis. The summaries below are  
17 not provided to discuss the merits of the proposed cost allocations, as WTCPUA's  
18 cost of service is beyond the scope of this proceeding on the public interest criteria;  
19 rather, these summaries specifically show that WTCPUA received feedback from the  
20 Committee and that WTCPUA took such feedback seriously:

- 21 • On March 25, 2013, WTCPUA staff and consultants presented the initial  
22 proposed capital cost allocation to the Committee. During that meeting, I  
23 received feedback that the proposed allocation of costs under-allocated current  
24 capital costs to retail customers. Based upon Committee recommendations, I  
25 asked the WTCPUA's rate consultant to update the analysis based upon an



1 allocation of capital costs with a future System capacity of 27 million gallons  
2 per day ("mgd") rather than the current 20 mgd capacity.

- 3 • April 1, 2013 – During this meeting, WTCPUA presented the revised analysis  
4 to the Committee, as requested in the previous meeting. WTCPUA again  
5 heard concerns from Committee members regarding the allocation of  
6 WTCPUA's purchase price of the water and wastewater system and the  
7 manner of providing credits. Again, I asked WTCPUA's rate consultant to  
8 analyze those concerns for the next meeting.
- 9 • April 9, 2013 – During this meeting, WTCPUA provided a response to the  
10 Committee's concerns expressed in earlier meetings. I then specifically asked  
11 the Committee members if they were at a point at which they could reach a  
12 consensus on a recommendation that WTCPUA staff could take to the  
13 WTCPUA Board of Directors. All WTCPUA representatives voluntarily  
14 stepped out of the room for over an hour, enabling the Committee to discuss  
15 in private. When WTCPUA staff, consultants, and I returned to the room, we  
16 heard and considered the Committee's recommendation for allocating debt  
17 and operations and maintenance costs in the Monthly Charge. The changes in  
18 calculation for the minimum monthly bill that were presented to the  
19 WTCPUA Board on November 21, 2013 were based upon this  
20 recommendation from the Committee.
- 21 • May 14, 2013 – During this meeting, WTCPUA presented its Volumetric Rate  
22 analysis to the Committee. This analysis was in draft form and included a  
23 draft version of the operating budget for fiscal year ending September 30,  
24 2014. I understood at this meeting that the Committee had concerns about the  
25 revenue requirements that were presented in that analysis. Consequently, I  
26 observed Nelisa Heddin, WTCPUA's rate consultant, recommend to the  
27 WTCPUA Board at the June 19, 2013 meeting to adopt the budget before  
28 setting wholesale rates.

29 **Q. IN ADDITION TO MEETING WITH THE COMMITTEE, DID WTCPUA**  
30 **MEET OR COMMUNICATE WITH WHOLESALE CUSTOMERS**  
31 **INDIVIDUALLY?**

32 **A.** Yes. I routinely told the Committee that I would happy to meet with any Committee  
33 members on an individual basis, at their convenience and request. WTCPUA's  
34 consultants and I met, and traded emails, with TCMUD 12 on several occasions  
35 between November 15, 2012, and November 21, 2013, concerning the analysis of the  
36 Wholesale Water Treatment Service Rates.

1 Q. IN ADDITION TO ANALYZING THE RATES WITH THE COMMITTEE  
2 AND INDIVIDUAL CUSTOMERS, DID WTCPUA TAKE ANY OTHER  
3 ACTIONS TO WORK WITH THE WHOLESALE CUSTOMERS IN THE  
4 PREPARATION OF THE WHOLESALE RATES THAT WERE  
5 EVENTUALLY ADOPTED ON NOVEMBER 21, 2013?

6 A. Yes. The WTCPUA Board of Directors provided the wholesale customers with the  
7 opportunity to amend their wholesale contracts with the WTCPUA to revise their  
8 quantity of wholesale water treatment capacity and living unit equivalent uptake  
9 schedule. I believed that enabling our wholesale customers to update their individual  
10 reserved capacity would enable them to reduce (or increase) their individual impact  
11 on the System and to more accurately reflect the amount of water treatment capacity  
12 needed from WTCPUA over time. In other words, WTCPUA gave its wholesale  
13 customers an opportunity to reduce or increase their contractual obligation with  
14 WTCPUA, which would consequently impact their rates as well.

15 Q. WHEN DID WTCPUA INFORM THE WHOLESALE CUSTOMERS OF THIS  
16 OPPORTUNITY?

17 A. A draft contract amendment form was provided to the wholesale customers on  
18 May 14, 2013. A copy of the email and draft amendment form is attached as  
19 Attachment P.

20 Q. WERE WHOLESALE CUSTOMERS REQUIRED TO ENTER INTO AN  
21 AMENDMENT?

22 A. Absolutely not. We presented this opportunity as an option to our wholesale  
23 customers. After providing the amendment form, WTCPUA began working with its  
24 wholesale customers that were interested in pursuing an amendment.

1   **Q.   DID ANY WHOLESALE CUSTOMERS CHOOSE TO EXECUTE A**  
2       **CONTRACT AMENDMENT WITH WTCPUA?**

3   A.   Yes. To date, six of the thirteen WTCPUA wholesale water customers have entered  
4       into amended contracts. In particular, WTCPUA approved amendments with three  
5       wholesale customers on November 21, 2013.<sup>2</sup>

6   **Q.   DID THE WTCPUA BOARD TAKE ANY OTHER ACTIONS RELATED TO**  
7       **THE CONTRACT AMENDMENTS?**

8   A.   Yes. At the November 21, 2013 meeting, the Board also authorized the use of an  
9       amendment form for other wholesale customers that wanted to amend their contracts.  
10      A copy of that resolution and form amendment are attached hereto as Attachment Q.

11  **Q.   DID TCMUD 12 ENTER INTO AN AGREEMENT TO MODIFY THE**  
12       **TCMUD 12 AGREEMENT, AS MODIFIED BY THE 2012 AMENDMENT?**

13  A.   No.

14  **Q.   AFTER HOLDING THE COMMITTEE MEETINGS AND AMENDING**  
15       **SOME OF THE WHOLESALE WATER SERVICE CONTRACTS, DID THE**  
16       **BOARD OF DIRECTORS OF WTCPUA DECIDE TO CHANGE THE**  
17       **WHOLESALE WATER TREATMENT RATES?**

18  A.   Yes. At the WTCPUA Board of Directors meeting held on November 21, 2013,  
19       WTCPUA staff presented its final recommendations to the Board, and the Board  
20       adopted an order modifying the wholesale water treatment service rates as  
21       recommended. A copy of the minutes from the November 21, 2013 WTCPUA Board

---

<sup>2</sup> A copy of the minutes from that November 21, 2013 meeting are attached hereto as Attachment R.

1 of Directors meeting and order adopting new wholesale water treatment service rates  
2 are attached hereto as Attachments R and S, respectively.

3 **Q. WHAT WAS THE RATE METHODOLOGY FOR WTCPUA'S WHOLESALE**  
4 **WATER TREATMENT SERVICE RATES, AS ADOPTED BY THE BOARD**  
5 **OF DIRECTORS ON NOVEMBER 21, 2013?**

6 A. WTCPUA's Wholesale Water Service rates charged to TCMUD 12, as approved by  
7 the WTCPUA Board of Directors on November 21, 2013, include a Monthly Charge  
8 and a flat Volume Rate. This is the same rate methodology as provided in the  
9 TCMUD 12 Agreement and rates adopted by the WTCPUA Board of Directors on  
10 November 15, 2012.

11 **Q. HOW DID TCMUD 12'S WHOLESALE WATER SERVICE RATES**  
12 **ADOPTED ON NOVEMBER 21, 2013 CHANGE FROM THE RATES**  
13 **ADOPTED ON NOVEMBER 15, 2012?**

14 A. TCMUD 12's Monthly Charge *decreased* from \$10,891.65 to \$8,140.89, and the flat  
15 Volume Rate *decreased* from \$2.77 per 1,000 gallons to \$2.11 per 1,000 gallons.

16 **Q. ARE THESE LOWER, NOVEMBER 21, 2013 RATES THE WHOLESALE**  
17 **WATER SERVICE RATES THAT ARE PROTESTED BY TCMUD 12 IN**  
18 **THIS HEARING?**

19 A. Yes.

20 **Q. WHEN DID THE WHOLESALE WATER TREATMENT SERVICE RATES**  
21 **ADOPTED ON NOVEMBER 21, 2013 BECOME EFFECTIVE?**

22 A. January 1, 2014.

1           **VII.     TCMUD 12 PARTICIPATION IN RATE-SETTING PROCESS**

2   **Q.     DID A REPRESENTATIVE OF TCMUD 12 ATTEND THE WTCPUA BOARD**  
3           **MEETING ON NOVEMBER 15, 2012, AND SPEAK AGAINST THE**  
4           **PROPOSED WHOLESALE RATE INCREASE?**

5   A.    No, not to my knowledge. The sign-in sheet for this meeting did not list any  
6           individuals that I understand represent TCMUD 12. A copy of the sign-in sheet is  
7           attached hereto as Attachment T. Additionally, the WTCPUA meeting minutes (*see*  
8           Attachment L), do not indicate that anyone from TCMUD 12 spoke for or against the  
9           proposed rate increase.

10 **Q.     DID TCMUD 12 APPOINT A REPRESENTATIVE TO SERVE ON THE**  
11           **WHOLESALE CUSTOMER COMMITTEE THAT WAS FORMED IN**  
12           **EARLY 2013?**

13 A.    Yes. It is my understanding that Joe DiQuinzio served as TCMUD 12's appointee to  
14           the Committee.

15 **Q.     WHEN DID YOU OBSERVE A REPRESENTATIVE OF TCMUD 12**  
16           **ATTENDING A COMMITTEE MEETING?**

17 A.    I observed a representative from TCMUD 12 attending four of the six Committee  
18           meetings. I have included sign-in sheets for each of the Committee meetings as  
19           Attachment U.

20 **Q.     IN ADDITION TO THE COMMITTEE MEETINGS, DID YOU HAVE**  
21           **INDIVIDUAL ONE-ON-ONE MEETINGS WITH REPRESENTATIVES**  
22           **FROM TCMUD 12?**

1 A. Yes. We had meetings with Mr. Jay Joyce and Mr. Joe DiQuinzio on January 31,  
2 2013, April 30, 2013, and November 8, 2013, to discuss the basis for the January 1,  
3 2013 wholesale rates and the allocation of costs of service for the wholesale rates to  
4 be presented to the Board of Directors on November 21, 2013. I also received a letter  
5 from TCMUD 12 on November 8, 2013 regarding the 2013 rates.

6 **VIII. RESPONSE TO MR. DIQUINZIO'S TESTIMONY**

7 **Q. HAVE YOU REVIEWED MR. DIQUINZIO'S TESTIMONY IN THIS CASE?**

8 A. Yes.

9 **Q. DOES HE TESTIFY REGARDING TCMUD 12'S ANTICIPATED COST TO**  
10 **BUILD A WATER TREATMENT PLANT?**

11 A. Yes. He stated \$25,000,000.<sup>3</sup>

12 **Q. DO YOU THINK THAT AN ESTIMATE OF \$25 MILLION TO BUILD A 4**  
13 **MILLION GALLON WATER TREATMENT PLANT IS REALISTIC?**

14 A. No.

15 **Q. PLEASE EXPLAIN.**

16 A. I will explain by referring to a recent cost analysis undertaken by the WTCPUA and  
17 included in its Capital Improvements Plan ("CIP"). A copy of WTCPUA's CIP  
18 approved by the Board of Directors on December 18, 2014 is attached hereto as  
19 Attachment V. It was prepared and sealed by the WTCPUA's engineer.

---

<sup>3</sup> Direct Testimony of Joseph A. DiQuinzio, Jr. at 5, line 30 (Oct. 31, 2014).

1    **Q.    DOES THE CIP CONTAIN A LINE ITEM FOR CONSTRUCTING A WATER**  
2           **TREATMENT PLANT?**

3    A.    Yes.

4    **Q.    CAN YOU PLEASE EXPLAIN THIS LINE ITEM?**

5    A.    Yes. The water treatment plant line item provides for building a water treatment  
6           plant capable of treating 5,000,000 gallons of water a day. The proposed cost is  
7           \$13,500,000, which is \$2,700,000 per 1,000,000 gallons of water treatment capacity.

8    **Q.    DOES THE CIP CONTAIN A LINE ITEM FOR CONSTRUCTING A WATER**  
9           **RAW WATER INTAKE?**

10   A.    Yes.

11   **Q.    CAN YOU PLEASE EXPLAIN THIS LINE ITEM?**

12   A.    Certainly. The raw water intake is capable of diverting 10,000,000 gallons of water  
13           per day. The proposed cost for the raw water intake is \$2,150,000, which is \$215,000  
14           per 1,000,000 gallons of water a day.

15   **Q.    DOES WTCPUA PURCHASE AND INSTALL 16-INCH WATER PIPELINES?**

16   A.    Yes.

17   **Q.    WHAT IS THE COST PER LINEAR FOOT TO PURCHASE AND INSTALL**  
18           **A 16-INCH WATER PIPELINE?**

19   A.    Approximately \$80 per linear foot.

1 Q. HOW MANY GALLONS PER DAY OF WATER IS WTCPUA REQUIRED  
2 TO TREAT FOR TCMUD 12 UNDER THE TCMUD 12 AGREEMENT, AS  
3 AMENDED?

4 A. WTCPUA is required to provide Wholesale Water Services to TCMUD 12 up to a  
5 maximum daily flow rate of 3,980,000 gallons per day.

6 Q. BASED UPON THE WTCPUA'S PROJECTED COST FROM ITS  
7 ENGINEER, IS THERE A GAP BETWEEN WTCPUA'S COST AND TCMUD  
8 12'S PROJECT COST?

9 A. Yes. Mr. DiQuinzio's projected cost is nearly double the WTCPUA's price, on a cost  
10 per 1,000,000 gallon basis.

11 IX. SUMMARY OF CHANGES TO WHOLESALE WATER  
12 SERVICE RATES CHARGED TO TCMUD 12

13 Q. DO THE WHOLESALE WATER SERVICE RATES ADOPTED BY THE  
14 WTCPUA BOARD OF DIRECTORS ON NOVEMBER 21, 2013 (THE RATES  
15 THAT TCMUD 12 IS PROTESTING IN THIS DOCKET) RESULT IN A  
16 RATE DECREASE TO TCMUD 12?

17 A. Yes. Both the Monthly Charge and Volumetric Rate adopted by the Board of  
18 Directors of WTCPUA on November 21, 2013, the rates protested by TCMUD 12 in  
19 this docket, are *lower* than the Monthly Charge and Volumetric Rate adopted by the  
20 WTCPUA Board of Directors on November 15, 2012. Furthermore, the protested  
21 minimum Monthly Charge is approximately 25%<sup>4</sup> *lower* than the minimum Monthly  
22 Charge that WTCPUA adopted on November 15, 2012 and the Volumetric Rates are

---

<sup>4</sup> (\$10,891.65-\$8,140.89)/\$10,891.65 = 25.2%.



1 approximately 23%<sup>5</sup> *lower* than the volumetric rates that WTCPUA adopted on  
2 November 15, 2012. These November 21, 2013 rates are also lower than the rates  
3 TCMUD 12 agreed to in the TCMUD 12 Agreement. I have detailed the three sets of  
4 rates charged to TCMUD 12 on the table below:

5 **Table 1: Summary of Wholesale Water Service Rates to TCMUD 12**

	<b>Rates Per TCMUD 12 Agreement with LCRA</b>	<b>Rates Adopted 03/19/2012</b>	<b>Rates Adopted 11/15/2012</b>	<b>Protested Rates Adopted 11/21/2013</b>
Monthly Charge	\$9,430	\$9,430	\$10,891.65	\$8,140.89
Flat Volumetric Rate	\$2.40 per 1,000 gallons	\$2.40 per 1,000 gallons	\$2.77 per 1,000 gallons	\$2.11 per 1,000 gallons

6 **Q. REGARDLESS OF WHETHER WTCPUA WOULD BE CONSIDERED A**  
7 **MONOPOLY, DO YOU BELIEVE THAT THE WTCPUA HAS A SUPERIOR**  
8 **BARGAINING POWER OVER TCMUD 12?**

9 A. No. WTCPUA is obligated under the TCMUD 12 Agreement to provide Wholesale  
10 Water Services to TCMUD 12, as requested by TCMUD 12. In fact, WTCPUA relies  
11 upon TCMUD 12 to use the reserved treatment capacity in the System so that  
12 WTCPUA can generate the revenue needed to pay for the system costs for the portion  
13 of the System that TCMUD 12 has reserved. WTCPUA can only charge for  
14 wholesale water services as allowed under the TCMUD 12 Agreement, as amended  
15 by the 2012 Amendment.

---

<sup>5</sup>  $(\$2.77 - \$2.11) / \$2.77 = 23.8\%$ .

1 Q. ASSUMING THE COMMISSION FINDS THAT WTCPUA IS A MONOPOLY  
2 IN THE PROVISION OF WHOLESALE WATER SERVICES, DID WTCPUA  
3 ABUSE ANY SUCH ALLEGED MONOPOLY POWER IN SETTING THE  
4 WHOLESALE WATER SERVICE RATES FOR TCMUD 12 ON  
5 NOVEMBER 21, 2013?

6 A. No. In the event that WTCPUA is found to have monopoly power, the WTCPUA did  
7 not abuse any such alleged monopoly power in adopting the November 21, 2013  
8 Wholesale Water Service Rates, for the following reasons:

- 9 1. WTCPUA formed the Wholesale Customer Committee for the express  
10 purpose of receiving input from wholesale customers on crucial rate decisions.
- 11 2. WTCPUA worked with the Committee and conducted a fair, open and  
12 transparent process.
- 13 3. WTCPUA included Committee recommendations into the wholesale water  
14 treatment service rate analysis.
- 15 4. TCMUD 12 participated in this process.
- 16 5. Communications from TCMUD 12 on April 30, 2013 and May 2, 2013 to the  
17 WTCPUA did not indicate significant objections to the proposed Monthly  
18 Charge.
- 19 6. The letter received by WTCPUA from TCMUD 12 on November 8, 2013  
20 (which pertained to the calculation of the minimum Monthly Charge) was  
21 received nearly six months *after* the Committee reached consensus on that  
22 topic. Further, the comments were issued after notices of proposed rate  
23 changes were sent to wholesale customers and less than two weeks before the  
24 Board would be formally considering the rates.
- 25 7. The WTCPUA has 13 wholesale water treatment service/wholesale water  
26 service customers, all of whom were subject to changes in their rates on  
27 January 1, 2014. TCMUD 12 is the only customer protesting the rates.
- 28 8. WTCPUA provided TCMUD 12 with an opportunity to revise the reserved  
29 capacity and absorption schedule in its TCMUD 12 Agreement, as amended.
- 30 9. WTCPUA lowered its Wholesale Water Service Rates to the lowest level ever  
31 charged under the TCMUD 12 Agreement.

1 Q. DID WTCPUA CHANGE ITS REVENUE REQUIREMENT  
2 METHODOLOGY IN THE WHOLESALE WATER SERVICE RATES  
3 ADOPTED ON NOVEMBER 21, 2013, AS COMPARED TO THE  
4 WHOLESALE WATER SERVICE RATES ADOPTED ON NOVEMBER 15,  
5 2012?

6 A. No. Both rate orders are based upon analyses that used the cash needs basis for  
7 determining revenue requirements.

8 Q. DID WTCPUA CHANGE ITS RATE METHODOLOGY IN THE  
9 WHOLESALE WATER SERVICE RATES ADOPTED ON NOVEMBER 21,  
10 2013, AS COMPARED TO THE WHOLESALE WATER SERVICE RATES  
11 ADOPTED ON NOVEMBER 15, 2012?

12 A. No. In both rate orders, WTCPUA charges TCMUD 12 a Monthly Fee and a flat  
13 Volumetric Rate.

14 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

15 A. Yes, but I reserve the right to amend my testimony.

### **Position Description**

Title: General Manager  
FLSA: Exempt Position

The General Manager (“GM”) is the Chief Administrative Officer of the PUA. The GM is employed by and is responsible to the Board of Directors for provision of cost-effective management of the day-to-day operations of the PUA and for insurance of compliance with federal, state and local laws, rules, regulations, and policies of the PUA. The GM identifies areas needing improvement, and implements plans for increased effectiveness within budgetary constraints retained by the PUA.

#### **Duties and Responsibilities:**

The duties and responsibilities of the GM include, but are not limited to, the following:

##### **Administration:**

- supervise and manage the activities and operations of the PUA and its staff and consultants, and oversee the preparation of contracts, agreements, and reports;
- inspect, monitor, and oversee water treatment and wastewater treatment and disposal operations, as well as the quality of the water distribution and wastewater collection systems;
- be responsible for providing an adequate and safe water supply and sufficient wastewater collection and treatment capacity for the PUA’s customers, in accordance with all applicable federal, state, and local laws, regulations, and ordinances;
- implement and manage the PUA’s water conservation and drought contingency programs;
- plan for potential prolonged droughts, energy shortages, urban development or other events that may disrupt and/or impact the water and wastewater service needs of the PUA’s customers;
- establish a complete set of electronic versions of documentation over all aspects of the organization’s activities in a secure electronic environment, independent of internet connection, to assure ongoing ownership of all documentation;
- maintain good relations with the Board, and meet and coordinate with PUA Board members, upon request;
- provide regular reports on the PUA’s operations to the Board;
- assist the Board in developing long range plans to ensure the PUA’s continued effectiveness, recommend needed policies, and develop appropriate procedures for implementing policies approved by the Board of Directors;
- work with the PUA’s financial advisor and present recommendations to the Board of Directors regarding investment strategies that provide the best rate of return consistent with cash flow needs and the investment policy of the PUA;
- supervise the establishment and maintain a complete parts inventory and stocking of PUA equipment, critical parts (those with long lead times), and supplies;

- supervise the creation and updating of Best Practices Standard Operating Procedures, Best Practices Emergency Procedures and Best Practices Preventative Maintenance Procedures;
- assist in preparation and review of plans for facilities, services, and construction to ensure compliance with PUA policies;
- maintain awareness of advances in the technological and administrative activities in the water and wastewater utility service arena through participation in trade organizations; and monitor legal, administrative, and operational environments for changes and innovations in such arena;
- develop and implement rules, regulations, and administrative policies for the PUA, and otherwise carry out the directives of the Board; and
- use the resources of the PUA to the greatest effectiveness including identification of (1) programs or other items which would increase the efficiency of the PUA and (2) problems to the PUA which reduce efficiency, and if applicable, initiate the development of a program to alleviate, or correct the problem.

Financial:

- approve purchases within approved budgets or as otherwise authorized by the Board; execute purchase orders, service agreements, maintenance agreements, and other documents binding the PUA within scope of authorization.
- assess, coordinate, and implement PUA rates and fees;
- approve payrolls and perform other necessary supervisory functions, including labor-management issues;
- review operations to identify opportunities for cost reduction;
- oversee and monitor operations in light of the approved budget, while keeping the Board fully informed of the progress of such undertakings;
- prepare and present budget recommendations to the PUA Board, based on past performance and planned growth for approval by Board; and
- facilitate audit process, as needed.

Stewardship/Education:

- serve as the point of contact for the PUA when coordinating with other governmental units, utilities and private sector users;
- lead and manage the communication practices of the PUA to maintain open and productive communication with customers, regulators, employees, Board members, other nearby utilities and neighborhood organizations;
- initiate and maintain positive working relationships with outside governmental and professional organizations and governing bodies that routinely interact with the PUA, participate in such organizations as a representative of the PUA, and articulate the PUA's mission to the community and solicit support for its objectives; and
- implement and manage the PUA's customer education and customer service programs and activities.

Staff Management

- hire a diverse staff of employees, as directed by the Board;

- direct such employees, both directly and through subordinates,
- conduct an annual performance review of all PUA employees, including the establishment of performance objectives, and initiation of changes in responsibility and/or pay as merited, within budget constraints;
- monitor employee performance and provide for the hearing and resolution of employee grievances or appeals of supervisors' decisions affecting employees;
- encourage and motivate PUA staff and consultants to maintain professional and technical expertise and skills;
- provide for the training and education of employees in the proper techniques required to perform their functions, within budget constraints, to ensure that the utility will always be able to meet its responsibilities to its customers and regulatory authorities;
- regularly visit work sites and ensure the proper, efficient and safe work habits of all employees; and
- meet with PUA staff and consultants to discuss operational and administrative issues;
- review and implement safety procedures for PUA personnel.

Education and Experience:

Five (5) years of responsible supervisory and administrative experience as the head of a public water and/or wastewater utility or as the deputy or principal assistant (with direct-line authority) in such an organization. Such experience would normally be gained after graduation from an accredited college or university with a Bachelor's degree in engineering, business or public administration, water resources, environmental management, or a closely related field; followed by progressively responsible professional experience in a related area.

Knowledge and Skills:

Comprehensive knowledge of innovative and effective management techniques; comprehensive knowledge of the principles, practices and methods of design, construction, operation, management and maintenance of modern water and wastewater systems; working knowledge of federal and state guidelines regulating the water and wastewater industry; skill in developing and implementing long-range plans, organization skill in effectively directing and controlling the activities of a public organization; skill in negotiating complex agreements, skill in the study and evaluation of organizing and evaluating the actions of others; skill in maintaining effective working relationships with supervisors and the general public; and skill in verbal and written communication.

Licenses and Certifications:

Possession of a valid Class "C" driver's license with a good and acceptable driving record required.

Working Environment

Works primarily in an office environment with some outdoor work.

**RESUME**  
**DONALD G. RAUSCHUBER, P.E.**  
**Austin, Texas**

EDUCATION:

B.S., Civil Engineering, Texas Tech University, 1970  
M.S., Civil Engineering, Texas Tech University, 1972

PROFESSIONAL REGISTRATION:

Professional Engineer, Texas

EMPLOYMENT HISTORY:

2013-Present West Travis County Public Utility Agency, Austin, Texas, General Manager  
1981-Present Donald G. Rauschuber and Assoc., Inc., Austin, Texas. President/Owner.  
2001-2009 Chisholm Trail Special Utility District, Florence, Texas  
1979-1981 Henningson, Durham and Richardson, Inc., Austin, Texas. Assistant Vice President, Director of Water Resources Programs, and Manager of Austin, Texas Office.  
1977-1979 Henningson, Durham and Richardson, Inc., Austin, Texas. Manager and Water Resources Consultant.  
1976-1977 Texas Water Development Board, Austin, Texas. Assistant Director Environmental Division.  
1975-1976 Texas Water Development Board, Austin, Texas. Engineer II.  
1973-1975 Texas Water Development Board, Austin, Texas. Hydrologist I.  
1971-1973 Texas Water Development Board, Austin, Texas. Engineering Assistant.  
1970-1971 Texas Tech University, Lubbock, Texas. Research Assistant.

HONORS:

Tau Beta Pi  
Advisor: Civil Engineering Department, Texas Tech University  
Recipient: U.S. Environmental Protection Agency Environmental Excellence Award w/Barton Springs/Edwards Aquifer Conservation District  
  
Recipient: Barton Springs/Edwards Aquifer Conservation District - Ground Water Conservation Award  
Recipient: American Planning Association - Project Planning Award w/Barton Springs/Edwards Aquifer Conservation District  
Recipient: Manager Of The Year Award – Texas Rural Water Association  
Civil  
Engr. Academy: Texas Tech University

Fields of Experience:

Mr. Rauschuber's background is in the field of Civil Engineering with specialties in the areas of water resources engineering/planning, including water and wastewater evaluations, regulatory permitting, environmental assessments, water/wastewater rates/appraisals, engineering economics/cost assessments, surface and ground water hydrology/development, municipal engineering/planning, facility planning/implementation, and regulatory reviews/permitting. Mr. Rauschuber has written numerous technical reports for public/private entities involving engineering, surface and ground water resources, water rates/rights, water quality, and advanced assessments of environmental resources. He also has extensive experience in water use analyses and projections, water and wastewater rates, and mathematical modelling of surface/ground water systems (quantity and quality).

Since beginning his professional career in 1970, Mr. Rauschuber has become a respected and recognized expert in Texas' water and natural resources. He specializes in water resources engineering and environmental assessments. Mr. Rauschuber is intimately knowledgeable with Texas' natural resources. He has performed assessments, studies and/or projects that have involved almost every Texas county/major city, river basin/major surface water resource, major aquifer/ground water resource, and bay and estuarine system.

Mr. Rauschuber has worked with or for State agencies, such as the TNRCC (formerly Texas Water Commission and Texas Water Rights Commission), TWDB, Texas Department of Health, and Texas Department of Transportation and with numerous local and federal agencies. He has represented municipalities, river/water authorities, underground water districts, and other types of political subdivisions. Also, he has worked with environmental, agricultural and industrial entities throughout the State.

Mr. Rauschuber has represented and performed major projects for public and private concerns, including the Texas Cities of San Antonio, Irving, Austin, Corpus Christi, Amarillo, Wichita Falls, Brownsville, Arlington, Fredericksburg, Albany, Winters, Kingsville, Argyle, Garden Ridge, El Cenizo, Canyon, Lampasas, Gun Barrel, and Crowley. Also, he has performed projects for other public entities, such as, the Red River Authority of Texas, Public Utilities Board of Brownsville, Rio Grande Valley Municipal Water Authority, Sharyland Water Supply Corporation, Dallas County Park Cities Municipal Utility District, Texas Department of Water Resources, Texas Water Development Board, U.S. Bureau of Reclamation, Cameron County Water Development Board, U.S. Fish and Wildlife Service, Lavaca-Navidad River Authority, Nueces River Authority, High Plains Underground Water District No. 1, Chisholm Trail WSC, and the Barton Springs/Edwards Underground Water Conservation District.

Private concerns include Farm Bureau, irrigation interests, IBM, Pepsi Cola/Frito-Lay, Robert Lanier/Sportsmen World MUD, Robert Shelton, Inc., Leonard Farms, Inc., Fort Clark Springs Corporation, Horizon Land and Cattle Company, and Gulf Coast Cattle Company.



Mr. Rauschuber has performed water and wastewater rate evaluations for numerous Texas clients. These rate study clients include Sharyland Water Supply Corporation, Winters, San Antonio, Corpus Christi, Red River Authority, Lavaca-Navidad River Authority, Public Utilities Board of Brownsville, Dallas County Park Cities Municipal Utility District, City of Argyle, Carroll Water System, City of Pharr, City of Winters, City of Bowie, Palo Pinto County MWD, Protect Lake Travis Association, and South Texas Water Authority.

At Texas Tech University, Mr. Rauschuber was a Graduate Research Assistant with the Water Resources Center, Department of Civil Engineering. He was co-principal investigator in a research program to document the effects of runoff from cattle feedlots on receiving streams and ground water systems, and co-principal investigator in research to determine the effects of Lubbock's wastewater treatment plant discharge of Buffalo Lake and the North Fork of the Double Mountain Fork of the Brazos River.

At the Texas Water Development Board, Mr. Rauschuber's research efforts and studies focused on evaluating the effects of water resources development on Texas bay and estuarine systems. Major programs included research on hydrologic, physical, chemical, and biological responses of estuarine environments. Principal study areas included Sabine Lake Estuary, Galveston Bay System, Lavaca-Tres Palacios Estuarine System, San Antonio Bay System, Aransas-Copano Estuarine System, Nueces-Corpus Christi Bay System and Laguna Madre System. In addition, he was co-principal investigator on research involving deltaic marsh systems, with emphasis on the Trinity River delta, and the Nueces River delta. Also while at the TWDB, Mr. Rauschuber, performed analytical and planning studies of major surface and ground water systems throughout the state.

Mr. Rauschuber conducted environmental studies of Lake Texana Reservoir and Choke Canyon Reservoir, and numerous other lakes and streams in the State. These investigations included environmental, hydrological, statistical, and water quality studies. While at the Board, he developed numerous hydrologic and biologic programs (computer and field sampling), and a comprehensive coastal data storage and retrieval system. Mr. Rauschuber participated in and was directly responsible for numerous hydrologic/biologic estuarine and fresh water sampling programs, including diurnal studies, plankton, and benthic sampling programs, intensive inflow-exchange studies and water quality sampling in all seven major estuarine systems of Texas. Mr. Rauschuber is a contributing author to the 1975 draft of the Texas Water Plan (Finalized in 1977), and was co-author of numerous estuarine reports while employed at the Texas Water Development Board.

At Henningson, Durham and Richardson, Mr. Rauschuber was Manager of the Austin office, Director of Water Resources Programs and Assistant Vice President. He managed and directed an interdisciplinary group of professionals in the performance of water resources planning and development projects, environmental investigations, hydrological studies and bay and estuary investigations. He was project manager and principal investigator of a 27-month study titled "Studies of Freshwater Needs of Fish and Wildlife Resources in Nueces-Corpus Christi Bay Area, Texas". This investigation was conducted under contract with the U.S. Fish and Wildlife Service. Mr. Rauschuber was also project manager/co-principal investigator of a study to evaluate fresh water inflow responses for Sabine Lake Estuary System. This effort was funded by the U.S. Department of Interior, Bureau of Reclamation. Also, while at HDR, Mr. Rauschuber was project manager and chief engineer for the design and construction of major water resources

projects. These projects included assessments of dams and reservoirs, water and wastewater treatment plants, and surface and ground water systems.

At Donald G. Rauschuber & Associates, Inc. (DGRA), Mr. Rauschuber was principal investigator/project manager of numerous water resources and environmental projects. These include environmental analysis of the Red River Basin, Nueces River Basin, Brazos River Basin, Colorado River Basin, Rio Grande River Basin, and Lavaca-Navidad River Basin. He was principal engineer/principal investigator on a three year investigation sponsored by the High Plains Underground Water District titled "Secondary Recovery of Ground Water". In addition, Rauschuber has performed numerous studies of the Edwards Aquifer, as well as, other major aquifer systems, for public and private entities. Mr. Rauschuber has numerous public and private entities on water and wastewater rates and water system analyses. He has provided support on permitting issues involving Texas water rights and water quality discharge, as well as, on numerous environmental projects. He has also provided expert testimony in Federal and District courts on related water resources and environmental matters. He has provided expert testimony and prepared numerous technical exhibits on behalf of public and private entities before the Texas Natural Resources Conservation Commission (formerly the Texas Water Commission and the Texas Water Rights Commission). His experience and responsibilities at DGRA, Inc. include project management and research/development in the fields of water resources, regulatory guidelines, and the environment.

Also while with DGRA, Mr. Rauschuber has performed municipal engineering and water resources services for numerous Cities, including Irving, Argyle, Gun Barrel, Garden Ridge, Fredericksburg, Canyon, Sunset Valley, and Hays City. In this capacity he has performed water and wastewater system analyses and prepared ordinances, provided engineering opinions on interpretation of the Local Government Code, local regulations, State statutes, and Federal laws and regulations. In addition, he has performed municipal design and construction management services.

#### SELECTED DGRA, INC. WATER RESOURCES AND ENVIRONMENTAL PROJECTS:

BARTON SPRINGS/EDWARDS AQUIFER CONSERVATION DISTRICT - Mr. Rauschuber has is the principal investigator for all District engineering activities. He has performed such projects as development of non-point runoff control devices and assessments of highway runoff, development of a regional water plan, evaluation and design of recharge enhancement projects, and detailed assessments of the Barton Springs Segment of the Edwards Aquifer.

SHARYLAND WATER SUPPLY CORPORATION, MISSION, TEXAS. Mr. Rauschuber was the chief water rate specialist is a complex wholesale water rate dispute between Sharyland Water Supply Corporation and United Irrigation District. This rate case, heard before the Texas Water Commission, involved developing and analyzing costs of service, evaluation of numerous raw water supply contracts, water rates, water rights, and conveyance losses. Due in part to

Mr. Rauschuber's efforts, SWSC prevailed in its case. Mr. Rauschuber provide extensive expert testimony in this matter including depositions and prefiled direct testimony.

CITY OF WINTERS, TEXAS. In this effort, Mr. Rauschuber was the rate expert for the City of Winters in a wholesale water rate case against the North Runnels County WSC. This dispute was heard before the Texas Water Commission. In this effort, Mr. Rauschuber design rates, determine costs of service, evaluated raw/treated water supply contracts, and provided expert testimony. Due in part to Mr. Rauschuber's efforts, the City of Winters was successful in achieving a fair and reasonable wholesale water rate.

RIO GRANDE VALLEY MUNICIPAL WATER AUTHORITY. Mr. Rauschuber is chief hydrologist and environmental engineer on a major project for the Rio Grande Valley Municipal Water Authority. This project involves the planning, environmental assessment, permitting, design, and construction of two channel dams on the Rio Grande. The present cost of these facilities is estimated to be \$30 million. Currently, Mr. Rauschuber is the project manager and chief coordinator of the development of an Environmental Impact Statement for the project. This effort is being coordinated through the U. S. Fish and Wildlife Service.

DALLAS COUNTY PARK CITIES MUD - EVALUATION OF LAKE GRAPEVINE. Mr. Rauschuber is the principal investigator on an effort to evaluate the hydrologic and environmental resources of Lake Grapevine. This project involves the development of reservoir operation rules to optimize reservoir yield, while minimizing the environmental impact of reservoir withdrawals.

CITY OF CORPUS CHRISTI - EVALUATION OF LAKE CORPUS CHRISTI AND LAKE CHOKE CANYON RESERVOIR. Mr. Rauschuber was project manager and principal investigator on a major effort to investigate procedures to optimize the system firm yield of Lake Corpus Christi and Choke Canyon Reservoir, while providing minimum environmental impact on the fish and wildlife resources of the Nueces River Basin and Corpus Christi Bay System.

PROTECT LAKE TRAVIS ASSOCIATION. Mr. Rauschuber was principal investigator to develop environmentally safe alternatives for no-discharge from the City of Marble Falls' proposed expansion of their wastewater treatment plant.

CITY OF WINTERS, TEXAS - WATER TREATMENT PLANT. Mr. Rauschuber was project manager, contract administrator and chief design engineer on the implementation and design of a 2.0 mgd raw water treatment facility for the City of Winters, Texas. This effort involved planning, development and financing elements for the project. The plant was placed into operation in July, 1986.

RED RIVER AUTHORITY OF TEXAS - BLOSSOM WASTEWATER TREATMENT FACILITY. Mr. Rauschuber was project manager, contract administrator, and chief design engineer on a 0.2 mgd wastewater treatment facility for the City of Blossom, Texas. This effort included state facility permitting and environmental assessments of the wastewater discharge from the proposed facility.

LAVACA-NAVIDAD RIVER AUTHORITY. Mr. Rauschuber is chief project environmental engineer on a project for the Lavaca-Navidad River Authority. This project entails detail hydrologic/hydraulic analyses to determine the need or non-need for freshwater releases from Lake Texana to the Lavaca-Matagorda Estuarine System.

PEPSI COLA/FRITO-LAY. Mr. Rauschuber was project hydrologist on a water resources development project for Frito-Lay, Inc. This effort involved the hydrologic/hydraulic evaluations of three reservoirs to be utilized by Frito-Lay, as a part of their new national headquarters development near Plano, Texas. As a result of Mr. Rauschuber efforts Frito-Lay was granted a Texas Water Rights Permit for their development.

INTERNATIONAL BUSINESS MACHINES - IBM. Mr. Rauschuber was the Austin Project Manager for a \$80 million IBM facility in Austin, Texas. He performed major client liaison functions, City and State permitting activities and some plant design functions in his effort.

SOUTH TEXAS WATER AUTHORITY, KINGSVILLE, TEXAS. Mr. Rauschuber was Project Manager/Engineer in this multi-task project that involved detailed ground water assessment of a 10,000 square mile region of South Texas. His duties included mathematical modelling of fresh water aquifers, well field(s) designs, and water transmissions/storage facilities. This effort involved a detailed evaluation of ground water availability and quality, including modelling of salt water intrusion into local aquifers from the Gulf of Mexico. As a result of Mr. Rauschuber's efforts in this project, a multi-million dollar water resources was developed resulting in the efficient use of ground and surface water resources for municipal, industrial, and agricultural purposes.

WINTERS ELM CREEK RESERVOIR, WINTERS, TEXAS. Mr. Rauschuber was Project Manager/Engineer on the planning, development, design, and construction of a major reservoir project in Runnels County, Texas. Initial planning study included the consideration of five alternative surface and ground water systems. The selected project involved the design and construction of a 60 foot high-5,000 foot-long earth-rolled dam. Raw water is pumped from the reservoir to the City via a 5.5 mile long 14-inch diameter pipeline.

ENLARGEMENT OF AMON G. CARTER RESERVOIR, BOWIE, TEXAS. Mr. Rauschuber was Project Manager of the planning and design of Amon G. Reservoir in Montague County, Texas. This project involved the planning, financing, design, and construction of a 50,000 acre-foot reservoir. The dam is a earth-rolled structure 2,000 feet in length with concrete spillways, outlet works and water intake tower.

LAKE BALLINGER, BALLINGER, TEXAS. This project involved the preliminary planning and design of an 10,000 acre-foot reservoir (earth-rolled dam) for the City of Ballinger, Texas.

LAKE TEXANA AND CHOKE CANYON RESERVOIR, TEXAS. Mr. Rauschuber was the principal investigator, while employed by the Texas Water Development Board, on the Lake Texana Reservoir Project Lavaca-Navidad River Authority, and Choke Canyon Reservoir, Nueces River Authority. This effort included environmental assessments, hydrologic/hydraulic design and an evaluation of the effects of reduced fresh water inflows to associated estuarine systems.

HIGH PLAINS UNDERGROUND WATER CONSERVATION DISTRICT NO. 1, LUBBOCK, TEXAS. This project involved advanced research in the development of ground water resources. Mr. Rauschuber as Project Manager and Project Engineer was directly involved in state-of-the-art ground water evaluations involving analyses of flow in saturated and unsaturated formations. In this project, Mr. Rauschuber directed laboratory and field research in a highly successful effort to enhance ground water recovery from previously saturated zones. He

personally directed and performed advanced well designs and was directly responsible for field construction. As result of his efforts, a new technology was developed that has world-wide application in the efficient development of ground water resources.

RED RIVER AUTHORITY OF TEXAS, WICHITA FALLS, TEXAS. Mr. Rauschuber conducted an extensive evaluation for the Red River Authority of Texas which involved a detailed evaluation for the water quality control programs at minimal cost to existing and future water customers.

REGIONAL RAW WATER SUPPLY EVALUATION - PALO PINTO COUNTY MUNICIPAL WATER DISTRICT NUMBER ONE, MINERAL WELLS, TEXAS. Mr. Rauschuber was Project Manager/Engineer on a multi-task water supply investigation to determine the short and long-term future raw water requirements of the Palo Pinto County Municipal Water District. Existing water resource developments of the District were analyzed by Mr. Rauschuber with respect to firm/safe yields to determine their adequacy. An economic analysis of potential surface ground water resource development projects was performed.

RAW WATER SUPPLY SYSTEM - WEATHERFORD, TEXAS. Mr. Rauschuber performed a detailed water resources evaluation for the City of Weatherford/Parker County, Texas. The City's existing water supply could not satisfy their present needs. Mr. Rauschuber performed analysis that showed the City is already overdrawing its supply reservoir and is in critical need of an additional water source. Several alternative water resource developments were identified and studied with respect to cost and long-term water supply reliability. An optimization model was utilized in the study to achieve the most economical water supply alternative of the City.

FALLS COUNTY WATER SUPPLY PROJECT, MARLIN, TEXAS. This project involved the detailed evaluation of the potential of developing ground water resources for municipal, industrial and agricultural uses in Falls County, Texas. Mr. Rauschuber was Project Manager/Principal Investigator in this effort. The project involved a detailed evaluation of four major aquifers covering over a 15,000 square mile region.

SPORTSMAN'S WORLD DEVELOPMENT, LAKE POSSUM KINGDOM, TEXAS. This project involved the planning and design of a water supply and water treatment system. Mr. Rauschuber was Project Manager/ Engineer in this effort. The project involved the planning and design of ground and surface water supply systems, with treatment accomplished by using reverse osmosis.

CITY OF KINGSVILLE, TEXAS. This project involved the planning of surface and ground water supply alternatives for the City of Kingsville. This analysis included water rate evaluations and water availability analyses.

CITY OF BISHOP, TEXAS. This project involved the planning of surface and ground water supply alternatives for the City of Bishop. This analysis included water rate evaluations and water availability analyses.

UNITED STATES DEPARTMENT OF INTERIOR, BUREAU OF RECLAMATION. This project entailed the development of the economic and environmental problems for 13 Texas river basins. This effort included population and water use projections as well as an assessment of costs associated with water resource development.

SABINE RIVER AUTHORITY, BON WEIR RESERVOIR PROJECT. This effort involved the planning and economic assessment of the proposed Bon Weir Reservoir Project, Sabine River Authority, Texas.

BRAZOS RIVER AUTHORITY/BOSQUE COUNTY WATER COMMITTEE, LAKE BOSQUE PROJECT. This project involved the preliminary engineering and feasibility analysis for the proposed Lake Bosque Project. Numerous surface and ground water supply alternatives were evaluated. This included detailed rate evaluations as well as hydrological studies.

CITY OF KILLEEN, TEXAS. This project involved the assessment of wastewater treatment plant alternatives for the City of Killeen. This also included assessment of wastewater discharge and economic alternatives analyses.

CITY OF WINTERS, TEXAS. This effort involved analyses of cost of service for the City of Winters regarding their raw and treated water system.

TEXAS NATURAL RESOURCES CONSERVATION COMMITTEE, LAKE CYPRESS SPRINGS. This effort involved detailed economic and water rate assessments for the proposed Lake Cypress Springs Reservoir. This included economic assessment of alternative water supply projects.

CITY OF ARGYLE, TEXAS. Mr. Rauschuber was project manager and construction manager on a 3.0 mile wastewater forcemain for the City of Argyle, Texas. This effort included planning, field management and contract administration of lift and metering stations and wastewater main.

CITY OF FREDERICKSBURG, TEXAS. This effort involved an assessment of the Ellen-Burger Formation, and the testing/development of a well field.

MCFADIN, ET. AL., UVALDE, TEXAS. Mr. Rauschuber represented numerous irrigation interest on the development and use of the San Antonio segment of the Edwards Aquifer. This effort involved mathematical modeling of the Edwards Aquifer and assessment of spring discharge.

CITY OF BRADY, TEXAS. Mr. Rauschuber performed an assessment of the Hickory Aquifer for the City of Brady, which involved the assessment of area/regional pumping impacts on the city's well field.

CITY OF IRVING, TEXAS. Mr. Rauschuber is project manager for the City of Irving on the assessment of transporting Lake Cooper water to the city of municipal use.

SELECTED PUBLICATIONS/TECHNICAL REPORTS:

"Freshwater Needs of Fish and Wildlife Resources in the Nueces-Corpus Bay Area, Texas: A Literature Synthesis" FWS/OBS-80/10, March, 1981 (with D.E. Henley, et al.).

"Plan for Additional Studies of Freshwater Needs of Fish and Wildlife Resources in Nueces-Corpus Christi Bay Area, Texas - Phase 2 Final Report", USFWS, July, 1978 (with D.E. Henley, et al.).

"Phase 3 Final Report - Additional Studies of Freshwater Needs of Fish and Wildlife Resources in Nueces-Corpus Christi Bay Area, Texas", USFWS, July, 1978 (with D.E. Henley, et al.).

"Phase 4 Management Plan - Additional Studies of Freshwater Needs of Fish and Wildlife Resources in the Nueces-Corpus Christi Bay Area, Texas", USFWS, August, 1980.

"Economic and Environmental Problem Needs Assessment of Trinity-San Jacinto Estuarine System", Bur. of Rec, 1981 (with D.E. Henley et al.).

"Economic and Environmental Problem Needs Assessment of Brazos Riverine Estuarine System", Bur. of Rec., 1981 (with D.E. Henley et al.).

"Economic and Environmental Problem Needs Assessment of Southeast Texas - Thirteen River Basins", 13 Vols./Chap., Bur. of Rec., 1981.

"Analytical Tools for Evaluating the Effects of Water Resources Development on Estuarine Environments", JAWWA, 1972 (with L. Tishler, J.C. Nelson).

"A Methodology for Evaluating Biological Responses", Div. of Envir. Chem. - Am. Chem. Society, April, 1975 (with C.W. Chen and J.C. Nelson)

"Texas Coastal Hydrology and Texas Estuaries", Paper Presented Natl. Est. Res. Conf., Galveston, Texas, 1974.

"Effects of Water Resources Development on Texas Estuarine Systems", Paper Presented at USEPA Estuarine Symposium, Las Vegas, Nevada, 1975.

"Evaluation of Texas Estuarine Systems, Paper Presented at ASCE National Meeting, St. Louis, Mo., 1973.

"Coastal Data Storage and Retrieval System", Paper Presented at International Conference of World Health Organization - United Nations, Houston, Texas, 1974.

"Texas Hydrology and Estuarine Systems", Paper Presented at Water Resources Institute Symposium, TAMU, 1975.

"Coastal Data System User Documentation - Volume 1 Storage Reference Manual", TWDB, WD-2505-01, 1977 (co-author).

"Completion Report on Techniques for Evaluating the Effects of Water Resources Development on Estuarine Environments" OWRR, TWDB 1974, Pub. LP-75 TDWR, 1978 (with A. White, et al.).

"Supplemental Studies - Environmental Impact of Stage 1 Palmetto Bend Reservoir Project", TWDB, Jan, 1974 (with J.C. Nelson et al.).

"Continuing Water Resources Planning and Development for Texas" Vols 1 & 2, TWDB, May 1977 (contributing author).

"Water Quality Evaluation - Upper and Middle Red River Basin", Red River Authority of Texas, March, 1983.

"Investigation of Secondary Recovery of Ground Water from the Ogallala Formation, High Plains of Texas", Vols 1 thru 7, December 1982 (with A.W. Wyatt, et al.).

"Continuing Studies - Secondary Recovery of Ground Water", Vols. 1 thru 7, High Plains Underground Water Conservation District No. 1, May 1985 (with others).

"Evaluation of Diamond Shamrock Refinery Discharge Permit No. 01353 on Lower Nueces River Basin", City of Corpus Christi, March, 1984 (with C. Oppenheimer and D.E. Henley).

"Secondary Recovery of Ground Water", Paper Presented at the Second Ogallala Symposium, Texas Tech University, Lubbock, Texas, June, 1984 (with A.W. Wyatt, et al.).

"Environmental Assessment Rio Grande Valley Water Conservation Project", Rio Grande Valley Municipal Water Authority and Public Utilities Board of Brownsville, Brownsville, Texas, March, 1991, 2 Vols. (with R.J. Brandes Co., M. Sullivan & Assocs., and Horizon Environmental Services, Inc.)

"Environmental Inventory and Issues Report", Rio Grande Valley Water Conservation Project", Rio Grande Valley Municipal Water Authority and Public Utilities Board of Brownsville, Brownsville, Texas, March, 1991. (with M. Sullivan & Assocs., Inc.)

"Technical Report - Operations Study", Rio Grande Valley Water Conservation Project", Rio Grande Valley Municipal Water Authority and Public Utilities Board of Brownsville, Brownsville, Texas, March, 1991. (with R.J. Brandes, Co.)

"Computer Simulations Report Rio Grande Valley Water Conservation Project", Rio Grande Valley Municipal Water Authority and Public Utilities Board of Brownsville, Brownsville, Texas, March, 1991, 4 Vols. (with R.J. Brandes, Co.)

"Regional Water Plan", Barton Springs/Edwards Aquifer Conservation District, Austin, Texas, September 1990.



ADDITIONAL STUDIES:

In addition to the publications and technical reports shown above, Mr. Rauschuber has authored or co-authored over numerous technical reports related to water resource projects. These environmental planning, evaluation and design reports were performed for public and private entities. These activities include the following:

Field data collection activities on Texas estuarine and deltaic marsh systems.

Mathematical modelling of estuarine systems.

Environmental effects of water resources development.

State-wide water resources planning and development studies, including surface and ground water investigations.

Environmental studies of Choke Canyon Reservoir and Lake Corpus Christi.

Evaluations and reviews of ground water and surface water resources in five states and in Mexico and Canada.

Hydrology studies of the Ogallala Aquifer of Texas and other major/minor aquifers of Texas and the United States.

Water rights and other permitting for surface and ground water resource development projects.

Wholesale and retail water rate analyses.

Expert witness in Federal/District Court and before the Texas Water Commission concerning water resources projects.

**DONALD G. RAUSCHUBER, P.E.**  
**Related Experience in Water and Wastewater**

**CONTESTED WATER OR WASTEWATER RATE CASES:**

Sharyland W.S.C. — United Irrigation District  
City of Winters — North Runnels W.S.C.  
Canyon Ridge Investment Company — Frank Byrd  
Travis County W.C.I.D. No. 14 — Village of Bee Cave: CCN/Rates  
Carroll Water Systems, Red Oak  
SWIG — Customers  
Lakefork W.S.C. — Developer CCN/Rates  
Customers versus Red Creek MUD  
Customers — Estates of Shady Hollow Water Company  
El Cenizo/Rio Bravo — McDonald  
City of Albany - Water Supply Corporation  
Pecan Plantation, Hood County, Texas  
Lakeshore Utility — Customers/TNRCC  
Country Ridge Water Company  
Forestar Reality — Double Horn WSC, Inc.  
Deer Creek Ranch Water LLC

**ENFORCEMENT MATTERS:**

City of Electra (5 projects)  
Patel, Columbus, Texas  
Lakeshore Utility (2 projects)

**WATER/WASTEWATER RATES/CCN/COST OF SERVICES/APPRAISALS:**

Blackland W.S.C.  
Lake Travis I.S.D.  
Chisholm Trail S.U.D. (3 projects)  
City of Waco/Harris Creek W.S.C.  
Travis County W.C.I.D. No. 14 (2 projects)  
City of Hays (2 projects)  
City of Argyle (3 projects)  
City of Garden Ridge (3 projects)  
Meadow Glen MHP  
City of Electra (7 projects)  
City of Winters (3 projects)  
City of Killeen  
City of Argyle (4 projects)  
Dallas County Park Cities MUD (3 projects)  
Valley MUD No. 2  
City of Irving (6 projects)