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PETITION OF THE CITIES OF  
GARLAND, MESQUITE, PLANO AND  
RICHARDSON APPEALING THE  
DECISION BY NORTH TEXAS  
MUNICIPAL WATER DISTRICT  
AFFECTING WHOLESALE WATER  
RATES

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PUBLIC UTILITY COMMISSION  
BEFORE THE STATE OFFICE  
OF  
ADMINISTRATIVE HEARINGS

DIRECT TESTIMONY

OF

CHRIS EKRUT

ON BEHALF OF

NORTH TEXAS MUNICIPAL WATER DISTRICT

February 5, 2018

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**CHRIS EKRUT, WITNESS FOR**  
**NORTH TEXAS MUNICIPAL WATER DISTRICT**

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## **LIST OF EXHIBITS**

EXHIBIT CE-1	Professional Resume of Chris Ekrut
EXHIBIT CE-2	Testifying Resume of Chris Ekrut
EXHIBIT CE-3	Analysis of Alternative Water Rate Methodologies for North Texas Municipal Water District, dated July 6, 2007
EXHIBIT CE-4	Fitch Ratings Report
EXHIBIT CE-5	Excerpt from Ratings Definitions of Fitch
EXHIBIT CE-6	Garland, Texas; Water/Sewer ratings rationale from S&P
EXHIBIT CE-7	Mesquite, Texas; Water/Sewer ratings rationale from S&P
EXHIBIT CE-8	Rating Scale of Moody's
EXHIBIT CE-9	Rating Scale of S&P
EXHIBIT CE-10	Administrative Memorandum No. 3.
EXHIBIT CE-11	1988 Memorandum: Questions Concerning Proposed Water System Contracts
EXHIBIT CE-12	Comparison of Member City Proportionate Share of Fixed Cost
EXHIBIT CE-13	Petitioning Cities Retail Rate Comparison
EXHIBIT CE-14	Excerpts from Deposition of Bente Villadsen, Ph.D.
EXHIBIT CE-15	TCEQ Regulatory Guidance Document on the Feasibility of Regionalizing Water and Wastewater Facilities
EXHIBIT CE-16	District Retail Rates and Petitioning Cities Retail Rate Comparison
EXHIBIT CE-17	Member City Comparison of Annual Requirement to Actual Use

**EXECUTIVE SUMMARY OF CHRIS EKRUT**

In this case, the Public Utility Commission of Texas (“Commission”) must determine whether the Member City Rate adversely affects the public interest. The criteria the Commission must use is set out in 16 Tex. Admin. Code § 24.133 (“Rule 24.133”). My testimony addresses particular issues raised by the Petitioning Cities in their Petition, issues raised in the testimony presented by the Petitioning Cities, and other relevant issues the Commission may weigh as set out in Rule 24.133. In sum, I focus on issues directly related to, and the analysis the Commission must undertake, to determine whether the Member City Rate adversely affects the public interest.

The focus of my testimony is on three of the criteria in Rule 24.133. First, the Member City Rate does not impair the Petitioning Cities’ ability to continue to provide service to its retail customers, based on the Petitioning Cities’ financial integrity and operational capability. Second, the Member City Rate does not evidence an abuse of monopoly power. Third, the Member City Rate is not unreasonably preferential, prejudicial, or discriminatory, compared to the wholesale rates the seller charges other wholesale customers.

Specifically, my testimony establishes the following:

- The protested rate does not financially impair the ability of the Petitioning Cities to continue to provide continuous and adequate service as it relates to Rule 24.133(a)(2);
- Policy No. 8 as employed by the North Texas Municipal Water District (“NTMWD” or the “District”) is not evidence of an abuse of monopoly power in the context of Rule 24.133(a)(3)(A);
- The District has clearly established the changed conditions that led to the rate change by the District in accordance with Rule 24.133(a)(3)(B);
- The District’s policies and rates promote water conservation within the framework of Rule 24.133(a)(3)(E);

- 1           • The District's retail water rates are comparable to those of the Petitioning Cities  
2           from the perspective of Rule 24.133(a)(3)(H); and
  - 3           • The protested rate is not *unreasonably* preferential, prejudicial, or  
4           discriminatory when compared to the wholesale water rates the seller charges  
5           the non-petitioning Member Cities within the framework of Rule 24.133(a)(4).
- 6       Accordingly, on these issues the Petition filed by the Petitioning Cities should be  
7       denied and the Petition dismissed.

1 **DIRECT TESTIMONY OF CHRIS EKRUT**

2 **I. POSITION AND QUALIFICATIONS**

3 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

4 A. My name is Chris Ekrut. My business address is 1300 E. Lookout Dr., Ste. 100,  
5 Richardson, Texas 75082.

6 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

7 A. I am a partner of NewGen Strategies & Solutions, LLC ("NewGen"). I currently  
8 serve as a Director in the Firm's Environmental Practice and Vice President of  
9 Corporate Services.

10 **Q. BRIEFLY DESCRIBE YOUR EDUCATION AND PROFESSIONAL**  
11 **EXPERIENCE.**

12 A. I received my undergraduate degree from West Texas A&M University in 2003  
13 and a Masters of Public Administration from the University of North Texas in 2005.  
14 While pursuing my Master's, I completed an internship with R.W. Beck, Inc. and  
15 subsequently became a full-time employee upon graduation. In 2008, I left R.W.  
16 Beck and became a partner in J. Stowe & Co. In 2012, J. Stowe & Co. reorganized  
17 into NewGen. Since the beginning of my career, I have provided consulting  
18 services to the utility industry, with an emphasis in the areas of water and  
19 wastewater.

20 My educational and professional background are further outlined in my  
21 professional résumé. Exhibit CE-1 is a true-and-correct copy of my professional  
22 résumé that I personally prepared.

1    **Q.    PLEASE DESCRIBE YOUR EXPERIENCE SPECIFIC TO THE WATER**  
2    **AND WASTEWATER INDUSTRY.**

3    A.    Since the beginning of my career, I have provided professional consulting services  
4    to municipalities, special districts, and investor-owned utilities in the area of water  
5    and wastewater. This includes, but is not necessarily limited to, the following:

- 6           • the performance of wholesale and retail cost of service and rate design  
7           studies;
- 8           • the performance of system valuations;
- 9           • the preparation of financial and business plans;
- 10          • the preparation of impact fee studies;
- 11          • assistance in the negotiation of wholesale water and wastewater contracts;  
12          and
- 13          • assistance before regulatory agencies including the provision of litigation  
14          support and expert witness testimony.

15        I have also been engaged by the Office of Public Interest Counsel to provide my  
16        technical expertise on water and wastewater rule-makings, many of which involved  
17        the transfer of regulation from the Texas Commission on Environmental Quality  
18        ("TCEQ") to the Commission. I am also a member of the American Water Works  
19        Association ("AWWA") and participate as a Committee Member of the Rates and  
20        Charges Subcommittee of the Texas Chapter of AWWA. Additionally, I have been  
21        called upon twice by EUCI to serve as an instructor for their training course entitled  
22        "Fundamentals of Cost of Service and Rate Design for Water Utilities."

23    **Q.    ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

24    A.    I am testifying on behalf of the District.



1    **Q.    WAS THIS TESTIMONY PREPARED BY YOU OR UNDER YOUR**  
2       **DIRECT SUPERVISION?**

3    A.    Yes, it was.

4    **Q.    HAVE YOU PREPARED ANY EXHIBITS IN CONNECTION WITH YOUR**  
5       **TESTIMONY?**

6    A.    Yes. I have prepared and sponsor the exhibits listed in the table of contents.

7    **Q.    WERE THESE EXHIBITS PREPARED BY YOU OR UNDER YOUR**  
8       **DIRECT SUPERVISION?**

9    A.    Yes.

10

11

**II. PURPOSE OF DIRECT TESTIMONY**

12   **Q.    WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**  
13       **PROCEEDING?**

14   A.    I will address several issues raised by the Petitioning Cities and how these issues  
15       inform the analysis of whether the protested rate adversely affects the public  
16       interest.

17   **Q.    HOW HAVE YOU ADDRESSED THESE ISSUES?**

18   A.    I will generally follow the order of the criteria as set out in Rule 24.133. District  
19       witness Jack Stowe has testified about that rule and the public interest criteria that  
20       must be considered by the Commission.

21   **Q.    WHAT ARE THE SPECIFIC ISSUES YOU WILL ADDRESS?**

22   A.    The purpose of my direct testimony is as follows:

- 1                   • Refute the Petitioning Cities<sup>1</sup> contention that the Member City Rate<sup>2</sup>  
2                   financially impairs their ability to continue to provide retail service as it  
3                   relates to Rule 24.133(a)(2);
- 4                   • Discuss the District's Policy No. 8 and establish that Policy No. 8 is not  
5                   evidence of an abuse of monopoly power in the context of Rule  
6                   24.133(a)(3)(A);
- 7                   • Note that the District has established changed conditions that led the District  
8                   to change the Member City Rate in the context of Rule 24.133(a)(3)(B);
- 9                   • Discuss the District's conservation policies and refute the Petitioning  
10                  Cities' contention that the District's current rate design does not encourage  
11                  water conservation within the framework of Rule 24.133(a)(3)(E);
- 12                  • Provide a comparison of the Petitioning Cities' retail rates with the retail  
13                  rates charged by the District from the perspective of Rule 24.133(a)(3)(H);  
14                  and
- 15                  • Establish that the Member City Rate is not unreasonably preferential,  
16                  prejudicial, or discriminatory when compared to the wholesale water rates  
17                  the seller charges to the non-petitioning Member Cities within the  
18                  framework of Rule 24.133(a)(4).

19    **Q.    HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY**  
20    **COMMISSION?**

21    A.    Yes, Exhibit CE-2 contains my record of testifying experience. While I have not  
22           filed testimony in the context of Rule 24.133, I was engaged by the City of Graham  
23           in SOAH Docket No. 582-14-2854, Petition of Fort Belknap Water Supply  
24           Corporation and Graham East Water Supply Corporation to Appeal the Wholesale

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<sup>1</sup> Petitioning Cities –The Cities of Garland, Mesquite, Plano and Richardson, which filed this appeal with the Commission. See Direct Testimony of Judd Sanderson, p. 11.

<sup>2</sup> Member City Rate — A charge per 1,000 gallons of water set by the District on a yearly basis to effectuate the Contract Annual Minimum Methodology and allocate the Annual Requirement to the Member Cities. The Member City Rate is calculated by dividing the Revenue Requirement by the total Annual Minimums for all Member Cities. This is described in Sections 9(a) and (b) of the Contract. For Fiscal Year 2017, the Member City Rate was \$2.53 per 1,000 gallons of water. Wholesale Contract Customers pay the Member City Rate plus \$0.05. See Direct Testimony of Judd Sanderson at 12. Member City – The Member Cities are the thirteen cities of Allen, Farmersville Forney, Frisco, Garland, McKinney, Mesquite, Plano, Princeton, Richardson, Rockwall, Royse City, and Wyle. See Direct Testimony of Judd Sanderson at 11.

1 Water Rate increase imposed by the City of Graham. The parties settled this Docket  
2 prior to the preliminary hearing at SOAH. In addition, I provided analytical  
3 assistance to Mr. Stowe in the execution of SOAH Docket No. 582-07-2049,  
4 Petition of BHP Water Supply Corporation Appealing the Wholesale Water Rate  
5 increase of Royse City, Texas and Request for Interim Rates.

6 **III. BACKGROUND**

7 **Q. PLEASE SUMMARIZE THE SERVICES YOU HAVE PROVIDED TO THE**  
8 **DISTRICT OVER THE COURSE OF YOUR CAREER SPECIFIC TO THE**  
9 **ISSUES RAISED IN THIS PROCEEDING.**

10 A. In 2006-2007, while I was employed by R.W. Beck, both Mr. Stowe and myself  
11 assisted the District in performing an analysis of alternative water rate  
12 methodologies for the District to change the allocation of cost away from the  
13 current Contract Annual Minimum Methodology.<sup>3</sup> The report addressing this work  
14 was provided in discovery and is included herein as Exhibit CE-3. Ultimately, the  
15 Member Cities were unable to unanimously agree on a path for change and the  
16 project was concluded.

17 More recently, beginning in the summer of 2016, Mr. Stowe and I were  
18 asked to assist the District in providing rate analysis supporting continuing  
19 discussions among the Member Cities on amending the Facilities Contract,  
20 including moving away from the Contract Annual Minimum Methodology.

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<sup>3</sup> Contract Annual Minimum Methodology – Facilities Contract provisions specifying that each Member City pay for its share of the Annual Requirement based on its Contract Annual Minimum in accordance with Section 9 (c) of the Contract. See Direct Testimony of Judd Sanderson at 10.

1 Reports outlining this work were also provided in discovery in this proceeding and  
2 are referenced in the testimony of District witness Tom Kula.

3 **Q. WHAT HAVE YOU BEEN REQUESTED TO DO IN THE CONTEXT OF**  
4 **THIS PROCEEDING?**

5 A. I have been requested to examine the issues that I outlined above.

6 **Q. PLEASE SUMMARIZE YOUR UNDERSTANDING OF THE RATE BEING**  
7 **PROTESTED IN THIS PROCEEDING.**

8 A. The Petitioning Cities all cite the Member City Rate of \$2.53 and the Excess  
9 Charge<sup>4</sup> of \$0.41 as being the rates protested in this proceeding. However, they  
10 also complain about the cost of each unit of water consumed during fiscal year  
11 2017, which they refer to as the “effective rate.” For brevity I will refer to it as the  
12 “unit cost.” As I will discuss extensively in my testimony, the cost per 1,000  
13 gallons is a reflection of the allocation of cost among the Member Cities, as well as  
14 the actual use of each Member City. In other words, while the Petitioning Cities’  
15 original petition challenges the published rates, their challenge is actually to the  
16 Contract Annual Minimum Methodology which has been in place since the 1960s  
17 and to which all parties in this case originally agreed.

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<sup>4</sup> Excess Charge - The Excess Charge is defined in the Facilities Contract at Section 9(d) and is equal to the part of the Regional Water System estimated operations and maintenance expenses related to supplying treated water in excess of a Member City’s or Wholesale Contract Customer’s Contract Annual Minimum for items such as electric power, chemicals and purchased water. The Excess Charge allows the District to collect funds to cover costs incurred in excess of the budgeted variable costs included in the Contract Annual Requirement. For Fiscal Year 2017, the Excess Charge was \$0.41 per 1,000 gallons of water for Member Cities. Wholesale Contract Customers pay the Excess Charge plus \$0.05. *See* Direct Testimony of Judd Sanderson at 10.

1     **IV.     THE MEMBER CITY RATE DOES NOT IMPAIR THE PETITIONING**  
2                     **CITIES' ABILITY TO PROVIDE SERVICE**

3     **Q.     HAVE THE PETITIONING CITIES SHOWN THAT THE MEMBER CITY**  
4             **RATE IMPAIRS THEIR ABILITY TO PROVIDE SERVICE BASED UPON**  
5             **THEIR FINANCIAL INTEGRITY AND OPERATIONAL CAPABILITY?**

6     A.     No. As discussed by Mr. Stowe, one of the criteria the Commission considers in  
7             determining whether the protested rate adversely affects the public interest is  
8             whether the protested rate, in this case the Member City Rate, impairs the  
9             purchaser's ability to continue to provide service to its retail customers based on  
10            the purchaser's financial integrity and operational capability. That is set out in Rule  
11            24.133(a)(2) and the rule is discussed by Mr. Stowe.

12            The evidence presented by the Petitioning Cities does not establish that any  
13            of the Petitioning Cities are impaired solely by the Member City Rate in their ability  
14            to continue to provide continuous and adequate service to its retail customers based  
15            upon either their financial integrity or operational capability.

16    **Q.     WHAT ISSUES HAVE THE PETITIONING CITIES RAISED RELATIVE**  
17             **TO THEIR ABILITY TO PROVIDE RETAIL SERVICE TO**  
18             **CUSTOMERS?**

19    A.     Several of the Petitioning Cities' witnesses explain that their customers have  
20             complained about increasing rates for retail water service.<sup>5</sup> The City of Mesquite  
21             also adds that increased retail rates unduly impact citizens with low or fixed  
22             incomes. These complaints are cited by Petitioning Cities witness Jess Totten.<sup>6</sup>

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<sup>5</sup> Direct Testimony of John Baker at 20–23; Direct Testimony of Jerome Dittman at 27–30 & Ex JD-33; Direct Testimony of Bruce Glasscock at 26–28; and Direct Testimony of Dan Johnson at 22–26.

<sup>6</sup> Direct Testimony of Jess Totten at 19.

1    **Q.    HOW DO THESE COMPLAINTS INFORM THE COMMISSION ABOUT**  
2           **THE PETITIONING CITIES' ABILITY TO CONTINUE TO PROVIDE**  
3           **RETAIL SERVICE?**

4    A.    They do not inform the Commission on this point. These complaints do not address  
5           the financial integrity or operational capability of the retail water systems operated  
6           by the Petitioning Cities. Further, they do not address whether the Petitioning  
7           Cities' ability to provide retail service is impaired. I have evaluated the concerns  
8           raised by the Petitioning Cities in their testimony regarding complaints made by the  
9           retail rate payers. I understand the concerns raised. These statements are a  
10          reflection of strains imposed by increasing retail water and wastewater service rates  
11          in general. Nevertheless, these statements do not inform the analysis imposed by  
12          the rule.

13   **Q.    HAVE YOU REVIEWED THE TESTIMONY PROVIDED BY THE CITY**  
14          **OF MESQUITE ("MESQUITE") RELATIVE TO ITS CAPITAL**  
15          **IMPROVEMENTS?**

16   A.    Yes. Mesquite indicated that it has forgone certain capital improvement projects.<sup>7</sup>

17   **Q.    HOW DOES THIS INFORM THE COMMISSION ABOUT HOW THE**  
18          **PETITIONING CITIES' HAVE BEEN IMPAIRED BY THE MEMBER**  
19          **CITY RATE?**

20   A.    Again, in my opinion, this does not inform the Commission on that point. It simply  
21          does not establish that Mesquite's ability to provide continuous and adequate retail  
22          service is impaired solely by the Member City Rate. The selected delay of capital

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<sup>7</sup> Direct Testimony of Jerome Dittman at 29.

1 investment on Mesquite's retail system reflects the internal choices of a  
2 municipality that maintains original jurisdiction over their rates. If a municipality  
3 chooses to delay capital investment, and forgo a retail rate increase, it is a decision  
4 of the city. It does not address the financial integrity or operational capability of  
5 the retail water systems operated by Mesquite. In this case, it is simply a reflection  
6 of Mesquite's decision to forego a certain project.

7 As a real-world example, Mesquite's arguments are similar to a homeowner  
8 claiming they could not paint or remodel their house simply because their monthly  
9 expenses from their utility provider have increased. The cost increases from the  
10 utility provider are not the only driver of the decision to delay capital maintenance  
11 or investment. The overall level of retail water service revenue, and how that retail  
12 revenue is distributed amongst competing needs of the utility and the city, all play  
13 into investment decisions. The charges from the District via the Member City Rate  
14 are only one variable in the capital maintenance and investment equation.

15 **Q. HAVE YOU REVIEWED THE TESTIMONY OF MR. JOHN BAKER AS IT**  
16 **RELATES TO THE IMPACT OF THE DISTRICT'S RATES ON THE**  
17 **BOND-RATINGS OF THE CITY OF GARLAND ("GARLAND")?**

18 A. Yes. I have reviewed testimony in which Mr. Baker discusses the impact on  
19 Garland's bond rating as well as the Bond Rating Report contained in Exhibit JB-  
20 13 which I have also included in my testimony as Exhibit CE-4. A Bond Rating  
21 Report is a public document released by a rating agency ("Rating Agency") that  
22 assigns a credit rating and discusses the rationale and significant factors impacting  
23 the rating given to a specific issuance or issuer.

1                   While Mr. Baker implies that Garland's bond rating has been impacted by  
2                   the Member City Rates, he does not state that Garland's ability to provide continued  
3                   service to its customers is impaired, nor that the Member City Rate is the singular  
4                   factor which resulted in the given rating.

5   **Q.   WOULD YOU BRIEFLY DESCRIBE YOUR EXPERIENCE**  
6   **EVALUATING BOND RATINGS?**

7   A.   As part of my work in conducting rate studies on behalf of my clients, I routinely  
8           review bond ratings issued by the rating agencies which include Fitch, Moody's  
9           and S&P Global. In addition, I must maintain an understanding of the ratings scale  
10          and rationale that are maintained by the agencies to assist clients in establishing  
11          rates which will support the financial metrics required to meet certain ratings  
12          criteria.

13   **Q.   WHAT ARE BOND RATINGS?**

14   A.   Generally, bond ratings are a measure provided by rating agencies of the issuer's  
15          financial health and credit worthiness. The rating provides investors a measure of  
16          the entities' ability to repay its current or proposed obligations.

17   **Q.   PLEASE EXPLAIN HOW A RATING AGENCY IDENTIFIES ITS**  
18   **RATINGS DEFINITIONS.**

19   A.   Each Rating Agency provides documentation which support its ratings definitions  
20          ("Ratings Definitions"). These definitions, and the associated ratings scales, differ  
21          from one Rating Agency to the other. As an example, I have attached as Exhibit  
22          CE-5 a copy of the Ratings Scale and Definitions as published by Fitch.



1   **Q.    IS EXHIBIT CE-5 A TRUE AND CORRECT COPY OF THE FITCH**  
2       **RATINGS DEFINITIONS THAT YOU RELY ON IN EVALUATING**  
3       **RATINGS PUBLISHED BY FITCH?**

4   A.    Yes. The pages in Exhibit CE-5 are taken from the Rating Definitions as published  
5       by Fitch, the full copy of which I have provided in my workpapers in this  
6       proceeding.

7   **Q.    HOW DID YOU ACQUIRE A COPY OF THAT DOCUMENT?**

8   A.    I contacted Hilltop Securities and requested a copy of that document.

9   **Q.    IN YOUR WORK AS A RATE CONSULTANT, IS IT PART OF YOUR**  
10       **PRACTICE TO RELY ON HILLTOP SECURITIES FOR COPIES OF**  
11       **RATINGS DEFINITIONS SUCH AS THIS DOCUMENT?**

12  A.    Yes. Hilltop Securities is the financial advisor that deals with debt instruments of  
13       District as well as a number of the Member Cities. All of the ratings reports that I  
14       rely upon and include in my workpapers were provided to me by Hilltop Securities.

15  **Q.    DO YOU HAVE A RELATIONSHIP WITH GARLAND?**

16  A.    Yes. I have served as a consultant to Garland specific to their retail water rates  
17       since 2013, and assisted Garland in developing their currently utilized retail water  
18       and wastewater rate models. I have also provided consulting services to Garland  
19       specific to wastewater surcharge calculations, wholesale wastewater service and  
20       contracts, and evaluation of the impact of new customers and service areas.

21  **Q.    DO YOU HAVE AN OPINION ABOUT GARLAND'S CURRENT BOND**  
22       **RATING?**

23  A.    Yes.

1    **Q.    ON WHAT DO YOU BASE THAT OPINION?**

2    A.    I base that opinion on a review of bond ratings reports published by Fitch and S&P;  
3           the bond rating definitions published by Fitch and S&P; and my experience  
4           evaluating bond ratings reports for municipalities.

5    **Q.    BASED UPON YOUR EVALUATION OF THE RATINGS DEFINITIONS,**  
6           **BOND RATINGS REPORTS, AND YOUR EXPERIENCE, WOULD YOU**  
7           **EXPLAIN THE BOND RATINGS AS THOSE RATINGS RELATE TO**  
8           **GARLAND?**

9    A.    Garland's bond rating reflects a city that has "very high credit quality" with a  
10          "strong capacity for payment of financial commitments," a capacity which is "not  
11          significantly vulnerable to foreseeable events."<sup>8</sup> This is reflected on Page 1 of  
12          Exhibit CE-5. Garland's current bond rating by Fitch is AA, which is one below  
13          the very highest rating that may be provided by Fitch. While Garland's rating has  
14          been downgraded recently from AAA to AA by Fitch, an AA rating indicates that  
15          Garland has a very strong capacity to meet its financial commitments.

16   **Q.    IN YOUR OPINION WHAT ELEMENTS IMPACT THE RATING**  
17          **ASSIGNED BY FITCH TO GARLAND?**

18   A.    There are several elements that influence Garland's bond rating. For example,  
19          Garland's *own debt service* has been cited as an element that accounts for the recent  
20          modest change to its rating. While I do not dispute that Fitch references the  
21          Member City Rate, it is not the only element that impacts the overall bond rating  
22          for Garland. Specifically, Exhibit JB-13 to Mr. Baker's testimony cites the "direct

---

<sup>8</sup> Exhibit CE-5, Fitch Ratings, Ratings Definitions at 21.

1 system debt per-customer levels [have] become elevated above the ‘AA’ median  
 2 when taking into consideration planned debt to support capital projects.”<sup>9</sup> The  
 3 report goes on to state “the system’s fiscal 2015-2019 capital improvement plan  
 4 (CIP) totals \$173 million and will be entirely debt-financed, a negative credit  
 5 consideration.”<sup>10</sup> In other words, it is not just the impact of the Member City Rate,  
 6 but Garland’s own decisions regarding capital funding which have impacted its  
 7 credit rating.

8 **Q. IN YOUR OPINION WHAT IS THE MOST SIGNIFICANT FACTOR**  
 9 **THAT ACCOUNTS FOR GARLAND’S BOND RATING?**

10 A. Based upon my experience and a review of the documentation, in my opinion,  
 11 Garland’s own choices about retail rate action, not the District’s rate action, most  
 12 significantly impacts its given rating. At Page 4, of Exhibit CE-6, which I discuss  
 13 below, the Bond Ratings Report states that while Garland’s efforts at reducing  
 14 conservation have resulted in pressure on net margins, Garland’s “willingness to  
 15 adjust rates and the generally good condition of the system, it is our view that the  
 16 forecast for financial performance will continue to approximate recent  
 17 performance.”

18 **Q. ARE THERE OTHER FACTORS THAT FITCH INDICATED**  
 19 **CONTRIBUTE TO GARLAND’S CREDIT RATINGS THAT SHOULD BE**  
 20 **CONSIDERED?**

21 A. Yes. On Page 2 of Exhibit JB-13, Fitch also cites Garland’s “above-average”  
 22 transfer of funds to Garland’s General Fund. As noted by Fitch, these transfer

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<sup>9</sup> Direct Testimony of John Baker, Ex. JB-13 at 1.

<sup>10</sup> *Id.* at 2.

1 levels are high, “averaging 11% of operating revenue over the past five fiscal years  
2 – and are projected to increase . . .”

3 **Q. WHY IS THIS SIGNIFICANT?**

4 A. This language indicates that Fitch recognizes the significance of the decisions made  
5 by a city council on a city’s debt rating. The city council, via the budgeting process,  
6 has set the required transfer of funds from the water and wastewater utility to the  
7 General Fund. This level of transfer directly impacts the required level of retail  
8 rates. Fitch indicates that, in their opinion, the established level is high which then  
9 contributes to the credit rating received. In other words, asserting that there has  
10 been financial impairment to the utility *solely* because of the Member City Rate  
11 would not be accurate.

12 **Q. IN YOUR OPINION, IS GARLAND’S RELATIONSHIP WITH THE**  
13 **DISTRICT BENEFICIAL?**

14 A. In my opinion, the relationship with the District is beneficial to Garland.

15 **Q. ON WHAT DO YOU BASE THAT OPINION?**

16 A. I base my opinion on my experience and upon my review of the S&P Global  
17 Ratings for Garland.

18 **Q. HAVE YOU REVIEWED THE BOND RATINGS REPORT FOR**  
19 **GARLAND’S SERIES 2017 WATER AND SEWER DEBT FROM S&P**  
20 **GLOBAL?**

21 A. Yes. Exhibit CE-6 is the Bond Ratings Report for Garland’s Series 2017 Water  
22 and Sewer Debt from S&P.

1    **Q.    IS THIS A TRUE AND CORRECT COPY OF THE S&P BOND RATINGS**  
2       **REPORT RELATED TO GARLAND THAT YOU ACQUIRED FROM**  
3       **HILLTOP SECURITIES?**

4    A.    Yes. The Bond Rating Report attached as Exhibit CE-6 is a true-and-correct copy  
5       of the report for the City of Garland that I acquired from Hilltop Securities.

6    **Q.    HOW HAS THAT REPORT CHARACTERIZED THE RELATIONSHIP OF**  
7       **GARLAND TO THE DISTRICT?**

8    A.    S&P has considered Garland's participation in the District to be beneficial. The  
9       Bond Ratings Report, at Page 2, states "the water system's role as a distributor of  
10      North Texas Municipal Water District (NTMWD) treated water, greatly reducing  
11      operational and financial risk to the city."

12   **Q.    HAVE OTHER RATINGS REPORTS EVALUATED THE RELATIONSHIP**  
13      **BETWEEN THE DISTRICT AND A MEMBER CITY?**

14   A.    Yes. Attached as Exhibit CE-7 is a true and correct copy of S&P Global Bond  
15      Ratings report published for Mesquite that I acquired from Hilltop Securities. That  
16      report contains similar findings for Mesquite indicating the beneficial nature of  
17      Mesquite's relationship with the District.

18   **Q.    DID MR. BAKER INDICATE IN HIS TESTIMONY THAT GARLAND HAS**  
19      **BEEN IMPAIRED IN PROVIDING RETAIL SERVICE DUE TO THE**  
20      **RATES OF THE DISTRICT?**

21   A.    No, not that I can discern. Neither Mr. Baker, Mr. Glasscock, nor Mr. Johnson  
22      stated that their cities have been financially or operationally impaired from  
23      providing continuous and adequate service by the Member City Rate. Their

1 testimony simply centers on what they claim are inequities in the rates and  
2 methodologies of the District. While Mr. Dittman testifies that Mesquite has  
3 delayed capital investments, my previous testimony on this point is that the charges  
4 from the District are only one part of the capital spending and maintenance  
5 decision.

6 **Q. IS THERE ANY OTHER INFORMATION THAT IS RELEVANT TO THE**  
7 **ISSUE OF THE FINANCIAL INTEGRITY OF THE PETITIONING**  
8 **CITIES?**

9 A. Yes. The table below demonstrates the latest bond ratings, based on reports  
10 included in my workpapers, specific to each of the Petitioning Cities. As  
11 evidenced, according to the rating agencies, all of the Petitioning Cities are  
12 considered very strong in their capability to meet their financial commitments, even  
13 with the Member City Rate. While few of these issuances are purely supported by  
14 utility revenues, it is my opinion that the ratings below demonstrate that each of the  
15 Petitioning Cities remains financially viable and have not been unduly impaired by  
16 the Member City Rates or the Contract Annual Minimum Methodology.

**Table 1**  
**Bond Ratings of the Petitioning Cities**

<u>City</u>	<u>Issuance</u>	<u>Rating</u>	<u>Agency</u>
<b>Garland</b>	GO 2017	AAA	Fitch
	GO 2017	AA+ / Stable	S&P
	W&S 2017	AA / Stable	Fitch
	W&S 2017	AA- / Stable	S&P
<b>Mesquite</b>	GO/CO 2017	Aa2	Moody's
	GO 2017	AA / Stable	S&P
	W&S 2017	Aa2	Moody's
	W&S 2017	AA / Stable	S&P
<b>Plano</b>	Issuer Default Rating	AAA / Stable	Fitch
	GO 2017	AAA / Stable	Fitch
	GO 2017	Aaa / Stable	Moody's
	GO 2017	AAA / Stable	S&P
<b>Richardson</b>	GO 2017	Aaa / Stable	Moody's
	CO 2017	AAA / Stable	S&P

3    **Q.    HOW DO THE CREDIT RATINGS FOR THE PETITIONING CITIES**  
4    **COMPARE WITH THE NON-PETITIONING CITIES?**

5    A.    Similar to the Petitioning Cities, all of the non-Petitioning Cities also demonstrate  
6    strong financial profiles according to the Rating Agencies. Again, I would reiterate  
7    that while few of these issuances are purely supported by utility revenues, it is my  
8    opinion that the ratings demonstrate that each of the Member Cities remains  
9    financially viable and have not been unduly impaired by the Member City Rate or  
10   the Contract Annual Minimum Methodology.

1  
2

**Table 2**  
**Bond Ratings of the Non-Petitioning Cities**

<u>City</u>	<u>Issuance</u>	<u>Rating</u>	<u>Agency</u>
<b>Allen</b>	GO 2017	AAA / Stable	S&P
	GO 2017	Aaa / Stable	Moody's
<b>Farmersville</b>	GO 2015	A+ / Stable	S&P
	GO 2016	Baa2	Moody's
<b>Forney</b>	GO 2017	AA- / Stable	S&P
	GO 2017	Aa3	Moody's
<b>Frisco</b>	GO 2017	AA+ / Stable	S&P
	GO 2017	Aa1	Moody's
<b>McKinney</b>	GO 2017	Aaa	Moody's
	GO 2017	AAA / Stable	S&P
	W&S 2017	Aa2	Moody's
	W&S 2017	AA+ / Stable	S&P
<b>Princeton</b>	Issuer Default Rating	A+	Fitch
	CO 2016	A+ / Positive	S&P
<b>Rockwall</b>	GO 2016	Aa2	Moody's
	GO 2016	AA+ / Stable	S&P
	GO (Issuer	Aa2	Moody's
	Comment) W&S	A1	Moody's
<b>Royse City</b>	Issuer Default Rating	A+	Fitch
	GO 2017	AA- / Stable	S&P
<b>Wylie</b>	CO 2017	Aa2	Moody's
	CO 2017	AA / Stable	S&P

3    **Q.    IN YOUR OPINION, WHAT DO THE VARIOUS RATINGS PROVIDED**  
4    **SIGNIFY?**

5    A.    Exhibit CE-5 is an excerpt from Fitch's ratings definitions. All of the ratings  
6    assigned by Fitch to the Members Cities of the District are A and higher. This is  
7    demonstrated on page 1 of Exhibit CE-5. This indicates that all Member Cities  
8    exhibit a "High Credit Quality" or greater.

9                    Exhibit CE-8 is a true and correct copy of the ratings scale provided by  
10    Moody's that I acquired from Hilltop Securities. As indicated, all of the ratings  
11    assigned by Moody's to the Member Cities are Investment Grade and reflect "high



1           quality” and “very low credit risk.” Only the City of Farmersville is given a lower  
2           rating and exhibits “moderate credit risk.” These findings are demonstrated within  
3           the Moody’s rating scale and long-term ratings definition as contained in Exhibit  
4           CE-8.

5                     Exhibit CE-9 is a true and correct copy of the rating scale of S&P which I  
6           obtained from S&P’s website. All of the ratings provided to the Member Cities are  
7           AA and higher, which reflects that each Member City’s “capacity to meet its  
8           financial commitments . . . is very strong.” This is demonstrated on Page 1 of  
9           Exhibit CE-9.

10                    In my opinion, as evidenced by the aforementioned exhibits, it is clear that  
11           in the eyes of the rating agencies, the Member Cities are financially strong and able  
12           to meet their obligations.

13   **Q.   WHAT IS YOUR CONCLUSION ABOUT THE ABILITY OF THE**  
14   **PETITIONING CITIES TO CONTINUE TO PROVIDE RETAIL**  
15   **SERVICE?**

16   A.   In my opinion, based upon my review of the documentation presented by the  
17           Petitioners and my analysis of the bond ratings, the Petitioning Cities have simply  
18           not established that their ability to continue to provide service to their retail  
19           customers is impaired by the Member City Rate, based upon their financial integrity  
20           or operational capability.

**V. POLICY NO. 8 IS A FINANCING SERVICE OPTION  
PROVIDED TO DISTRICT CUSTOMERS**

**A. Introduction**

**Q. GENERALLY, ARE YOU FAMILIAR WITH THE ISSUES RAISED BY  
THE PETITIONING CITIES REGARDING POLICY NO. 8?**

A. Yes. Jerome Dittman, who testifies on behalf of the City of Mesquite, and Jess Totten, who testifies on behalf of the Petitioning Cities, make what are, in my opinion, unsubstantiated allegations that Policy No. 8 is an example of the District's abuse of monopoly power.<sup>11</sup>

**Q. WHAT IS YOUR RESPONSE?**

A. Policy No. 8 is a financing service option provided to the District's customers. It is not evidence of an abuse of monopoly power, nor is it evidence of disparate bargaining power on the part of the District. On the contrary, Policy No. 8 is intended to provide an avenue for Member Cities to achieve their infrastructure goals as these municipalities respond to pressures that result from growing populations and expanded service needs.

**Q. ARE YOU FAMILIAR WITH POLICY NO. 8?**

A. Yes, District witness Judd Sanderson describes Policy No. 8 in detail. Policy No. 8 is a policy the District's Board of Directors adopted to accommodate a Member City's request that the District extend its Regional Water System. Thus, Policy No. 8 was established as a mechanism for a Member City to extend and finance necessary infrastructure to augment water delivery options to a Member City to address future growth and development forecasted by the municipality.

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<sup>11</sup> Direct Testimony of Jerome Dittman at 14–18; Direct Testimony of Jess Totten at 19-20.

1    **Q.     WHY WAS THE POLICY ESTABLISHED?**

2    A.     Based upon my review of Policy No. 8 and Mr. Sanderson's testimony, it appears  
3           that the purpose of the policy was to determine a means by which improvements  
4           could be requested, constructed, and financed by the District without requiring  
5           immediate, full cash funding by a Member City.

6    **Q.     WHAT OTHER OPTIONS ARE AVAILABLE TO A MEMBER CITY  
7           THAT DESIRES TO INCREASE INFRASTRUCTURE IN ORDER TO  
8           TAKE MORE WATER FROM THE DISTRICT'S FACILITIES?**

9    A.     As noted by Mr. Sanderson, cities can choose to cash-fund requested  
10          improvements, enter alternative Facilities Agreements with the District, or simply  
11          construct the facility themselves. In other words, a Member City is not required to  
12          invoke Policy No. 8.

13    **B.     Summary of Issues Raised by Petitioning Cities**

14   **Q.     WHAT ISSUES DO THE PETITIONING CITIES NOW RAISE  
15          REGARDING THE DISTRICT'S POLICY NO. 8?**

16   A.     Mr. Totten alleges that it is an example of how the District abuses its monopoly  
17          power.<sup>12</sup> He makes the unfounded assertion that the District, through Policy No. 8,  
18          requires that the Petitioning Cities invoke that policy to fund new delivery points  
19          or transmission line extensions. As asserted in the testimony of Petitioning Cities  
20          Witness Dittman, Mesquite asserts that because of Policy No. 8, Mesquite has paid  
21          for the cost of constructing a new pipeline many times over due to the "artificial,"  
22          long-term impact to Mesquite's Contract Annual Minimum.

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<sup>12</sup> Direct Testimony of Jess Totten at 19-20.

1    **Q.    WHAT CRITERIA OF THE COMMISSION’S PUBLIC INTEREST RULE**  
 2           **ARE MR. TOTTEN AND MR. DITTMAN RELYING ON TO ESTABLISH**  
 3           **THEIR ASSERTION THAT POLICY NO. 8 IS EVIDENCE OF AN ABUSE**  
 4           **OF MONOPOLY POWER?**

5    A.    Frankly, it is not clear how they are able to argue that Policy No. 8, which was  
 6           adopted to allow Member Cities an alternative mechanism to achieve goals they  
 7           have identified, is an abuse of monopoly power. It is not entirely clear to me how  
 8           they link their arguments to specific provisions of Rule 24.133(a)(3). At times they  
 9           appear to argue that it is an abuse of monopoly power and raise unfounded  
 10          allegations that the policy is somehow forced onto the Member Cities due to the  
 11          District’s disparate bargaining power. This would appear to be related to Rule  
 12          24.133(a)(3)(1). At other times, they appear to argue that there is some changed  
 13          condition that evidences an abuse of monopoly power and thereby implicate Rule  
 14          24.133(a)(3)(C).

15          **C.    Policy No. 8 is Optional and is not the Result of Disparate Bargaining**  
 16                **Power**

17    **Q.    ARE MEMBER CITIES REQUIRED TO USE POLICY NO. 8 TO FUND**  
 18           **INFRASTRUCTURE IMPROVEMENTS?**

19    A.    No. This issue is addressed further in the testimony of Mr. Sanderson.

20    **Q.    DO YOU HAVE AN OPINION REGARDING POLICY NO. 8 AND HOW IT**  
 21           **MIGHT APPLY TO RULE 24.133?**

22    A.    Yes. Any assertion that Policy No. 8 is an abuse of monopoly power is simply  
 23           incorrect. There is no disparate bargaining power as relates to its implementation.  
 24           As explained by Mr. Sanderson, District Member Cities have several financing

1 mechanism options. Policy No. 8 is simply another option available to District  
2 Member Cities for the Member City to achieve its infrastructure goals. The District  
3 does not have the ability to force a Member City to use Policy No. 8.

4 **Q. WHAT OPTIONS DID MESQUITE HAVE BEFORE OPTING TO**  
5 **FINANCE THE INFRASTRUCTURE PROJECT THROUGH POLICY NO.**  
6 **8?**

7 A. As I have already stated, a Member City is not required to fund infrastructure  
8 improvements through Policy No. 8. That is one option. Member Cities can choose  
9 to cash-fund requested improvements or enter alternative Facilities Agreements  
10 with the District, just as Mesquite did in regards to a transmission pipeline in 2002.  
11 This is discussed further in the testimony of Mr. Sanderson.

12 **Q. WHAT ROLE DID THE DISTRICT PLAY WHEN MESQUITE OPTED TO**  
13 **FINANCE THROUGH POLICY NO. 8?**

14 A. As explained by Mr. Sanderson, Mesquite was not forced to implement Policy No.  
15 8. In other words, the District did not unilaterally undertake the improvement and  
16 force Mesquite to accept adjustments to its Contract Annual Minimum. These were  
17 all actions voluntarily undertaken by Mesquite, and is not a fact that Mesquite  
18 disputes.

1   **Q.    WHAT DOES PETITIONING WITNESS JEROME DITTMAN, WHO**  
2       **TESTIFIED ON BEHALF OF MESQUITE, SUGGEST ABOUT**  
3       **MESQUITE’S DECISION TO FINANCE THROUGH POLICY NO. 8?**

4    A.   Petitioning Witness Jerome Dittman does not dispute that Mesquite requested  
5       implementation of Policy No. 8 and accepted the increases to the Annual Minimum  
6       Requirement in accordance with that policy.<sup>13</sup>

7       **D.    Summary**

8   **Q.    WOULD YOU SUMMARIZE YOUR CONCLUSIONS THUS FAR WITH**  
9       **REGARDS TO POLICY NO. 8?**

10   A.   My conclusions are as follows:

- 11           • Policy No. 8 was adopted by the Board of Directors, comprised of  
12           representatives appointed by the Member Cities.
- 13           • No Member City, including Mesquite, is required to finance infrastructure  
14           through Policy No. 8.
- 15           • The District has no disparate bargaining authority to force a Member City  
16           to use Policy No. 8.

17   **VI.    THE DISTRICT HAS ESTABLISHED THE CHANGED CONDITIONS**  
18       **THAT ARE THE BASIS FOR THE CHANGE IN RATES**

19   **Q.    WOULD YOU ELABORATE ON YOUR EARLIER POINT REGARDING**  
20       **CHANGED CONDITIONS?**

21   A.   Rule 24.133(3) provides that one criterion the Commission may consider in  
22       evaluating whether the protested rate, here the Member City Rate, adversely affects  
23       the public interest is whether the protested rate evidences the seller’s abuse of  
24       monopoly power. In the context of whether the seller abused monopoly power, the

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<sup>13</sup> Direct Testimony of Jerome Dittman at 15.

1 Commission may weigh the following factor: The seller's failure to reasonably  
2 demonstrate the changed conditions that are the basis for the change in rates. This  
3 provision is discussed further by Mr. Stowe.

4 **Q. HAVE THE PETITIONING CITIES RAISED ISSUES RELATED TO THIS**  
5 **PROVISION?**

6 A. It is sometimes not clear how the Petitioning Cities apply the rule language of  
7 "changed conditions." I want to clarify here that, to my understanding, a changed  
8 condition is not evidence of an abuse of monopoly power under this rule. On the  
9 contrary, changed conditions are factors in considering whether the District has  
10 explained the fact that there was a basis for a change in rates.

11 **Q. HOW WOULD THAT APPLY IN THIS PROCEEDING?**

12 A. The rule makes it clear that the Commission may not consider in this phase of the  
13 proceeding the District's cost of service. On the other hand, the rule provides the  
14 District an opportunity to generally describe why rates have changed. Mr.  
15 Sanderson explains generally why rates have increased.

16 **Q. WHAT OTHER ARGUMENTS HAVE THE PETITIONING CITIES**  
17 **RAISED ABOUT CHANGED CONDITIONS?**

18 A. The Petitioning Cities spend a considerable amount of time discussing the unit cost  
19 of water. They refer to it as the "effective rate." The "effective rate," or per unit  
20 cost of water, is a function of the agreed upon Contract Annual Minimum  
21 Methodology and usage pattern of the individual users of the system.

1    **Q.    IN YOUR OPINION, HOW DOES THE UNIT COST OF WATER INFORM**  
 2       **THE COMMISSION ABOUT THE RATES CHARGED BY THE**  
 3       **DISTRICT?**

4    A.    Based upon my experience, the unit cost of water only informs the Commission  
 5       about the unit cost a particular user of the system pays as a result of the allocation  
 6       methodology and their respective usage at a single point in time. As I will explain  
 7       in more detail below, the findings of such an analysis will change from year-to-  
 8       year. Because it changes based on actual use, a unit cost analysis does not inform  
 9       the Commission about whether the protested rate adversely affects the public  
 10      interest. While an “effective rate” analysis can be used to make comparisons about  
 11      the particular efficiency of a customer’s overall use compared with their contracted  
 12      amount, in my opinion, it does not serve as a basis for assessing whether the  
 13      Member City Rate adversely affects the public interest.

14              Because the Petitioning Cities have premised their case on the concept of a  
 15      unit cost analysis, it is my opinion that I must respond to the issues raised.  
 16      However, in my opinion, a unit cost analysis is simply not a firm basis on which to  
 17      analyze Member City Rates.

18   **Q.    HOW DOES THE DISTRICT SET THE RATES FOR THE INDIVIDUAL**  
 19       **USERS OF THE SYSTEM?**

20   A.    To be clear, the District does not set a rate for each individual wholesale user of the  
 21       system. The District sets a system-wide rate. This practice is consistent with the  
 22       statutory goals of the State of Texas related to water planning and regionalization,



1 as discussed by Carlos Rubenstein and Tom Gooch, as well as the structure and  
2 requirements of the Facilities Contract.

3 **Q. HOW IS THE UNIT RATE ANALYSIS RELEVANT TO YOUR EARLIER**  
4 **DISCUSSION OF POLICY NO. 8 AND MESQUITE?**

5 A. Mesquite complains that its unit cost of water is impacted by Policy No. 8, and that  
6 the unit cost has changed over time. This is a given, even outside of Policy No. 8.  
7 As I stated above, the “effective rate” is a function of the Contract Annual  
8 Minimum Methodology and historical water consumption of Mesquite.

9 **Q. WHAT EXPECTATION WOULD YOU HAVE REGARDING THE UNIT**  
10 **COST OF WATER FOR INDIVIDUAL USERS OF THE SYSTEM?**

11 A. It does not surprise me that the unit cost of water is not the same across wholesale  
12 water users of this system. As I previously testified, the variations in unit cost are  
13 simply a function of the Contract Annual Minimum Methodology and each  
14 customer’s actual water consumption. It is unrealistic to expect that at any  
15 particular point in time, usage is identical throughout the system.

16 **Q. WHEN WOULD YOU EXPECT THAT DIFFERENCES IN UNIT COST**  
17 **WOULD BE MANIFEST?**

18 A. As I said, unit costs of individual users of the system will vary over time and the  
19 issues raised in this case are not new. Differences will occur between members in  
20 each year, and the unit cost will vary by individual user year to year.

21 **Q. HAS THIS ISSUE PREVIOUSLY BEEN RAISED BY MEMBER CITIES?**

22 A. Yes. As I mentioned above, Mr. Stowe and I were retained in 2006 – 2007 to assist  
23 in an analysis of alternative water rate methodologies for the District that might

1 replace the current Contract Annual Minimum Methodology. We were retained  
2 again in the summer of 2016 to address these same issues. But it is also my  
3 understanding that this issue predates my involvement.

4 **Q. WHEN WAS THE ISSUE OF AMENDING THE ANNUAL MINIMUM**  
5 **REQUIREMENT METHODOLOGY FIRST RAISED?**

6 A. In reviewing available documentation, as far as I am able to tell, the debate  
7 regarding the Contract Annual Minimum Methodology goes back at least 48 years  
8 to approximately 1969. Petitioning City Witness Bruce Glasscock references a  
9 District Administrative Memorandum No. 5 dated November 1969  
10 (“Administrative Memorandum”). That document was attached to Mr. Glasscock’s  
11 testimony as Exhibit BG-16 and discusses this issue. I have included this document  
12 in my testimony as Exhibit CE-10.

13 **Q. WHAT IS THE SUBJECT OF THAT MEMORANDUM?**

14 A. A key focus of the memorandum was the issue of the Contract Annual Minimum  
15 Methodology, described in relation to what in that document is identified as the  
16 “McKinney Problem.” On page 1, the Administrative memorandum states as  
17 follows:

18 “This memorandum has been prepared at the request of the Board .  
19 . . for an analysis of the ‘McKinney Problem’. The problem is not  
20 new as it has been discussed for several years, and in essence, does  
21 not pertain only to McKinney but has affected several of the member  
22 cities”<sup>14</sup>

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<sup>14</sup> Exhibit BG-16, Bates Page 000271 (emphasis added).

1    **Q.    WHAT IS THE “MCKINNEY PROBLEM?”**

2    A.    As discussed in the Administrative Memorandum, the City of McKinney’s  
3           (“McKinney”) minimum annual payment that was established was to be based on  
4           either the highest use of any previous year, or the 6<sup>th</sup> year minimum stated in the  
5           contract with the District. This appears, in my opinion, to be conceptually  
6           analogous to the Contract Annual Minimum contained in the Facilities Contract.  
7           As such, even in 1969, the District’s cost allocation methodology was “to provide  
8           minimums for each member city based on the highest use in any previous year or  
9           the sixth year contract minimum whichever is higher.”

10   **Q.    WHAT PROBLEMS DID MCKINNEY ENCOUNTER?**

11   A.    As noted in the Administrative Memorandum, during the first six years of the  
12          contract term, McKinney over-estimated their anticipated use, and thus  
13          McKinney’s Annual Minimum exceeded its actual use. This is effectively the same  
14          issue raised by all the Petitioning Cities, not just Mesquite, in this proceeding. In  
15          other words, the methodology discussed in the 1969 memo has not changed, nor  
16          has the impact on cities when their water use is less than their Contract Annual  
17          Minimum.

18   **Q.    DOES THE ADMINISTRATIVE MEMORANDUM INDICATE THE**  
19          **RESOLUTION OR WHETHER A CHANGE WAS MADE BASED ON THE**  
20          **“MCKINNEY PROBLEM?”**

21   A.    No, the Administrative Memorandum does not indicate the ultimate resolution or  
22          whether a change was made. However, the following are conclusions contained in  
23          the memorandum and suggests reasons why the District and the Member Cities may

1 have continued the annual minimum requirement based on highest annual use  
2 methodology:

3 “1. [T]he method presently being utilized by the District has  
4 produced results and made the District very sound financially  
5 without any extreme inequities.

6 2. Any organization that continues to manipulate the method of rate  
7 establishment, finds itself in continual problems; each unusual  
8 situation will result in a request for modification of the method  
9 which could possibly result in tension among the members and  
10 eventual destruction or disunity within the organization, and

11 3. That the District’s Consultants both engineering and financial  
12 have continually recommended this method.”<sup>15</sup>

13 **Q. HOW DOES THE UNIT COST PAID BY MCKINNEY COMPARE TODAY**  
14 **TO THE PROTESTED RATE?**

15 A. Dr. Villadsen calculated that the unit cost paid by McKinney today is equal to \$2.58  
16 per 1000 gallons.<sup>16</sup> The protested rate is \$2.53 per 1000 gallons. Thus, today, the  
17 actual use closely matches McKinney’s Contract Annual Minimum. However, that  
18 being said, McKinney, like the Petitioning Cities, paid an “effective rate” that is  
19 higher than the published rate.

20 **Q. WHAT CONCLUSION DO YOU DRAW FROM THAT?**

21 A. As I mentioned earlier, I would expect the unit costs of the different users to vary  
22 over time based upon the usage patterns of individual users of the system. That is  
23 established by the experiences of McKinney and the “McKinney Problem”  
24 identified in 1969.

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<sup>15</sup> Exhibit CE-10, Administrative Memorandum at 5.

<sup>16</sup> Direct Testimony of Dr. Bente Villadsen at 30, Fig. 6.

1   **Q.    HOW DO THE ISSUES RAISED BY MESQUITE RELATE TO THE**  
2       **“MCKINNEY PROBLEM?”**

3    A.    Mesquite experienced a similar situation as McKinney. Mesquite agreed to a  
4       Contract Annual Minimum via the application of Policy No. 8 that has not  
5       subsequently been achieved in actual use.

6   **Q.    WOULD YOU EXPLAIN FURTHER HOW MESQUITE HAS BEEN**  
7       **IMPACTED BY POLICY NO. 8?**

8    A.    As a condition of expanding the Regional Water System,<sup>17</sup> as requested by  
9       Mesquite in accordance with that policy, Mesquite’s Contract Annual Minimum  
10      was increased over and above Mesquite’s actual historic, highest level of usage.  
11      While it is typically anticipated that overall usage will increase over time and  
12      Mesquite’s Contract Annual Minimum will once again be commensurate with its  
13      historical, highest level of usage, this has not yet occurred. Actual annual usage by  
14      Mesquite has remained below the Contract Annual Minimum set in accordance  
15      with Policy No. 8.

16   **Q.    HOW HAS USE OF POLICY NO. 8 BY MESQUITE IMPACTED**  
17       **MESQUITE?**

18   A.    Mesquite initially benefited from the policy by not having to issue its own debt or  
19      expend cash on hand for the requested infrastructure improvements. However,  
20      because Mesquite has not utilized water as it anticipated, Mesquite’s Contract  
21      Annual Minimum has been higher than actual consumption. While the overall

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<sup>17</sup> Regional Water System – District facilities that have been acquired or constructed to provide treated water service to customers in accordance with the Facilities Contract as defined in the Facilities Contract at Section 1(o). *See* Direct Testimony of Judd Sanderson at 12.

1 consumption of wholesale water by Mesquite has not matched Mesquite's  
2 consumption, Mesquite has benefited from the expansion of the Regional Water  
3 System. This is explained in more detail by Mr. Sanderson.

4 **Q. WHY DOES MESQUITE BELIEVE IT HAS NOT BENEFITED FROM ITS**  
5 **USE OF POLICY NO. 8?**

6 A. First, let me clarify that Mesquite has benefited from the expansion of the Regional  
7 Water System that is now in place, as well as benefitted initially from not having  
8 to issue its own debt or expend cash reserves to fund this infrastructure initially.  
9 As Mr. Sanderson makes clear, the facilities built under Policy No. 8 are used and  
10 useful and providing service to Mesquite.

11 In the case of Mesquite, while Mesquite has benefited from the project the  
12 increase in *total* consumption anticipated by Mesquite has not occurred. This has  
13 led to Mesquite's current Contract Annual Minimum being higher than actual  
14 average annual use.

15 **Q. DO YOU AGREE WITH MESQUITE THAT THE DISTRICT IS AT FAULT**  
16 **FOR NOT ADDRESSING THE ISSUES THAT HAVE ARISEN WITH**  
17 **POLICY NO. 8?**

18 A. No. Under the current rate methodology, lowering Mesquite's Contract Annual  
19 Minimum would presumably result in an overall increase in the per unit rate for the  
20 remaining twelve Member Cities. The "correction" that Mesquite seeks would  
21 have varying impacts on the remaining Member Cities. As such, any change to  
22 address Mesquite's individual circumstance is an issue to be addressed by the

1 collective cities. It cannot be corrected as a simple administrative matter by the  
2 District.

3 **Q. IN YOUR OPINION, DOES THE DISTRICT'S POLICY NO. 8**  
4 **REPRESENT AN ABUSE OF MONOPOLY POWER VIA A FAILURE TO**  
5 **JUSTIFY A CHANGED CONDITION THAT WOULD CONSTITUTE A**  
6 **VIOLATION OF THE PUBLIC INTEREST?**

7 A. No. While Mesquite Witness Dittman's testimony discusses Policy No. 8 under  
8 Section IV, Changed Conditions, of his testimony, I do not see how the  
9 implementation of Policy No. 8 constitutes an abuse of monopoly power via the  
10 inability to justify a changed condition under 24.133(a)(3)(B). As I discussed  
11 above, the use of Policy No. 8 is at the full discretion of a city that is relying on the  
12 policy. That city receives the benefit of not having to issue debt or expend cash on  
13 hand to immediately fund the requested capital improvements in exchange for an  
14 adjustment to their Contract Annual Minimum. The use of Policy No. 8 is not  
15 demanded by the District – it is a mutually agreed upon action of both parties. The  
16 changes in Mesquite's Contract Annual Minimum were executed with the full  
17 knowledge and acceptance of Mesquite, and were not forced upon Mesquite by the  
18 District. The issues related to Policy No. 8 are unique issues to Mesquite, which  
19 do not apply to any of the other Petitioning Cities or non-Petitioning Cities, and, in  
20 my opinion, in no way serves to indicate the Member City Rate adversely affects  
21 the public interest.

1    **Q.     WOULD YOU EXPECT THE UNIT COST OF WATER FOR MESQUITE**  
 2       **TO CHANGE IN THE FUTURE?**

3    A.    I would be surprised if the unit cost of water remains constant over time for any  
 4           single wholesale water user. It is difficult to predict with certainty what impact  
 5           future consumption will have on the unit cost of water. District witness Tom Gooch  
 6           will address issues related to future consumption. But as I have already stated, the  
 7           change in unit cost is simply not a factor that evidences abuse of monopoly power  
 8           that is the subject of Rule 24.133(a)(3)(B).

9    **Q.     HOW DO YOUR ARGUMENTS APPLY TO OTHER ARGUMENTS**  
 10       **RAISED BY THE PETITIONING CITIES?**

11   A.    The Petitioning Cities all raise arguments that are analogous to the problem  
 12           described as the McKinney Problem. As I explained above, and as I explain in  
 13           more detail below, the unit cost will fluctuate over time and that is to be expected.  
 14           In my opinion, those changes are not evidence of an abuse of monopoly power, but  
 15           are representative and a result of the agreed to Contract Annual Minimum  
 16           Methodology and the actual, historical usage of the various Member Cities.

17               **VII.    THE DISTRICT ENCOURAGES CONSERVATION**

18   **Q.     DO THE PETITIONING CITIES RAISE ANY OTHER ALLEGATIONS**  
 19       **CONTENDING THAT THE DISTRICT HAS ABUSED MONOPOLY**  
 20       **POWER THAT YOU WILL ADDRESS?**

21   A.    Yes. The Petitioning Cities have raised several arguments regarding Rule  
 22           24.133(a)(3)(E). As explained by Mr. Stowe, the rule provides that one of the  
 23           factors to be weighed in determining whether a seller has abused monopoly power  
 24           are the “incentives necessary to encourage regional projects or water conservation



1 measures.” Again, Mr. Stowe addresses the framework of Rule 24.133(a)(3)(E).  
 2 Carlos Rubenstein and Tom Gooch will address issues related to regionalization  
 3 and conservation at a Statewide level that impact District operations. I will address  
 4 three issues raised by the Petitioning Cities.

5 **Q. WHAT ARE THOSE ISSUES?**

6 A. First, I will address the rebate policy that was established to return to Member Cities  
 7 the District’s avoided costs associated with reduced consumption of water. Second,  
 8 I will discuss issues related to rate design and explain how the currently agreed to  
 9 contract provisions encourage conservation. Third, I will address specific rate  
 10 design proposals presented by Dr. Villadsen.

11 **A. Rebate Policy**

12 **1. Introduction**

13 **Q. DOES THE DISTRICT HAVE A REBATE POLICY THAT TODAY**  
 14 **RECOGNIZES CONSERVATION?**

15 A. Yes. As Mr. Sanderson explains, the current rebate policy is codified in Policy No.  
 16 19 (“Rebate Policy”). The Rebate Policy is an example of the District’s  
 17 responsiveness to concerns raised by Member Cities.

18 **Q. WHAT DO YOU MEAN THAT THE REBATE POLICY IS AN EXAMPLE**  
 19 **OF THE DISTRICT’S RESPONSIVENESS TO CONCERNS RAISED BY**  
 20 **THE MEMBER CITIES?**

21 A. As Mr. Sanderson testified, the District is bound by the Facilities Contract. Its  
 22 actions must remain within the limits of the contractually agreed to methodology  
 23 contained within the Facilities Contract. The Rebate Policy was developed after  
 24 the Facilities Contract was executed, and falls within the limits of the Facilities

1 Contract. Within those limits, it was developed as a direct response to requests by  
2 Member Cities for a reduction in costs due to a reduction in water usage. Despite  
3 the Petitioning Cities' dismissal of the program argued in these proceedings, the  
4 Member Cities have previously expressed their appreciation for this action.

5 **Q. WHERE HAS THIS BEEN REFLECTED?**

6 A. Petitioning Cities Witness Johnson, who testified on behalf of the City of  
7 Richardson ("Richardson"), included a copy of a letter authored by the Richardson  
8 City Manager at the time that plainly states Richardson's appreciation for the  
9 Rebate Policy.<sup>18</sup> While the letter reflects Richardson's request that a broader  
10 revision to the Facilities Contract be implemented, the letter does acknowledge the  
11 adoption of a policy that is responsive to the issues raised by Richardson. While  
12 the District is unable to unilaterally revise the Facilities Contract, the District was  
13 responsive within its allotted authority by instituting the Rebate Policy and  
14 Richardson was appreciative and recognized that effort.

15 **Q. PLEASE DESCRIBE YOUR UNDERSTANDING OF THE REBATE**  
16 **POLICY AND THE PURPOSE OF THE POLICY.**

17 A. As discussed by Mr. Sanderson, the Member City Rate is set to recover the  
18 District's entire revenue requirement. In other words, the District's total revenue  
19 requirement, consisting of both fixed and variable costs, are divided by the total of  
20 the collective Contract Annual Minimums of the Member Cities to develop the  
21 Member City Rate per 1,000 gallons. To "true-up" its variable cost and return  
22 avoided cost to the Member Cities reflective of their actual use, the District rebates

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<sup>18</sup> Direct Testimony of Dan Johnson at Ex. DJ-13, Bates Page 00015.

1 back the portion of revenues associated with variable cost recovery between actual  
2 use and the Contract Annual Minimum.

3 **2. Issues Raised by the Petitioning Cities Regarding the Rebate**  
4 **Policy.**

5 **Q. PLEASE DISCUSS YOUR UNDERSTANDING OF THE ISSUES THE**  
6 **PETITIONING CITIES HAVE RAISED WITH REGARDS TO THE**  
7 **DISTRICT'S REBATE POLICY.**

8 A. First, they take issue with the fact that the award of a rebate, per the District's  
9 policy, must be approved by the Board of Directors. On that basis, they conclude  
10 that there is "no absolute certainty that a rebate will be issued in a given year."<sup>19</sup>  
11 Second, the Petitioning Cities characterize the variable cost rebate of the District as  
12 "insignificant."

13 **Q. HOW RELIABLE ARE THE REBATE PAYMENTS?**

14 A. Historical payments made pursuant to the rebate policy have been very reliable. As  
15 described by Mr. Sanderson, the fact is that since the program was implemented,  
16 the District has awarded a rebate in all but two years - and in those two years the  
17 rebate was not awarded because, as explained by Mr. Sanderson, the rebate was  
18 small or there was no rebate to award. In other words, the policy has been in effect  
19 for over twenty-five years and rebates have been paid for almost all of those years.  
20 Based on that historical experience it does not appear that, absent extenuating  
21 circumstances, the Board would not approve rebates.

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<sup>19</sup> Direct Testimony of Bruce Glasscock at 21.

1    **Q.    HOW HAVE THE PETITIONING CITIES BEEN IMPACTED BY THE**  
2       **REBATE POLICY?**

3    A.    The Rebate Policy reduces costs to the Member Cities and recognizes conservation.  
4        As explained by Mr. Sanderson, from 1993 through 2017 rebates for both Member  
5        Cities and wholesale contract customers totaled \$98.2 million. Of that amount  
6        Member Cities received \$87.0 million. While these rebates may be small compared  
7        with the amounts recovered by the District related to its fixed cost, it is important  
8        to remember that utilities are extremely fixed cost intensive enterprises due to the  
9        capital investment required to provide service, and variable cost comprises a  
10       relatively small percentage of the District's overall cost.

11       **B.    The Facilities Contract Encourages Conservation**

12   **Q.    WHAT IS YOUR UNDERSTANDING OF THE PETITIONING CITIES'**  
13       **COMPLAINTS AS THEY RELATE TO THE FACILITIES CONTRACT**  
14       **AND CONSERVATION?**

15   A.    The Petitioning Cities claim that the Contract Annual Minimum does not  
16       incentivize Member Cities to reduce water consumption below the stated amount.

17   **Q.    DO YOU AGREE THAT THE MEMBER CITY RATE DOES NOT**  
18       **ENCOURAGE CONSERVATION?**

19   A.    No. Specific to a wholesale rate structure, it is my opinion that the Member City  
20       Rate sends a very strong conservation signal. Further, were it not for conservation,  
21       then the very issues raised in this proceeding may not be issues at all.

1    **Q.    ON WHAT DO YOU BASE THAT OPINION?**

2    A.    I base that opinion on the Petition and testimony filed in this case and my analysis  
3           of the documents produced in this case. Further, in my opinion, Dr. Villadsen does  
4           not dispute that conservation is a driver for this proceeding.<sup>20</sup>

5    **Q.    HAVE THE CONSERVATION EFFECTS OF THE CONTRACT BEEN**  
6           **PREVIOUSLY RECOGNIZED?**

7    A.    Yes. The Facilities Contract encourages conservation and that fact has been known  
8           since 1988. In a 1988 Memorandum, attached to Mr. Dittman’s testimony<sup>21</sup>, the  
9           District explained that the “take-or-pay” provision of the Facilities Contract  
10          encouraged conservation. The following excerpt is taken from that document:

11                    “This method also encouraged cities not to waste water. If pipelines  
12                    leaked, system repairs were delayed, or general waste occurred in  
13                    the city’s system, this would result in higher minimums which the  
14                    city must pay in the future. Therefore, if the city could reduce this  
15                    waste, future growth would replace it and their minimums would not  
16                    increase as greatly. Even under today’s new current conservation  
17                    policies a city that can look beyond one year would determine that  
18                    the encouragement of good landscaping water conserving practices  
19                    and conservation of use by individual households would result in  
20                    lower peak requirements on the system and lower minimums in the  
21                    future. The end result would be lower cost to the city and therefore  
22                    to the citizens for water service, as well as, a reduction in the volume  
23                    of water necessary, and a reduction in the need for water resource  
24                    development benefitting not only the cities but the [District].”

25           I have attached a copy of that memorandum as Exhibit CE-11. (Emphasis added).

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<sup>20</sup> Exhibit CE-14, Transcript of Oral Deposition of Bente Villadsen, Ph.D. at 156, ln. 12-17.

<sup>21</sup> Direct Testimony of Jerome Dittman at Ex. JD-24.

1    **Q.    WHAT IS YOUR UNDERSTANDING REGARDING THE**  
 2    **CONSERVATION EFFECTS OF THE FACILITIES CONTRACT?**

3    A.    Under the contract that was agreed to by all parties, a Member City's Contract  
 4    Annual Minimum is based on its highest recorded annual usage. By basing the total  
 5    billings to a Member City on this highest recorded amount, the District's  
 6    methodology encourages Member Cities to keep the annual usage at or below  
 7    historic levels. If a Member City exceeds these levels, whether through actual use  
 8    or by water loss, then their annual charges are adjusted upwards for the remainder  
 9    of the contract term.

10   **Q.    HOW DOES THIS CONSERVATION CONCEPT OPERATE OVER TIME?**

11   A.    In my opinion, over time there is no stronger wholesale price signal that could be  
 12   levied to encourage Member Cities to be efficient in their water use and not exceed  
 13   their Contract Annual Minimum than to have it impact them every year for the  
 14   remainder of the contract. The Petitioning Cities have chosen to view the Contract  
 15   Annual Minimum Methodology in a single year – but the strongest signal sent by  
 16   the cost allocation methodology comes over time as a Member City's proportionate  
 17   share of costs are increased through the term of the contract reflective of actual use.

18   **Q.    IN HER TESTIMONY, DR. VILLADSEN CLAIMS THAT THE FACT**  
 19   **THAT THE ANNUAL MINIMUM DOES NOT DECREASE ONCE IT IS**  
 20   **SET IS IRRELEVANT AS IT RELATES TO CONSERVATION TO THE**  
 21   **PETITIONING CITIES. DO YOU AGREE?**

22   A.    No. For Dr. Villadsen to claim that the Contract Annual Minimum Methodology  
 23   is not a deterrent to the Petitioning Cities discounts the deterrent that has been in

1 existence since the execution of the Facilities Contract and its predecessor  
 2 contracts. Simply because the Petitioning Cities are currently in a position in which  
 3 their Contract Annual Minimums are higher than their actual annual use does not  
 4 negate the conservation incentives that have been provided to all the Member Cities  
 5 since the inception of the current methodology. Further, these same contractual  
 6 provisions apply to nine non-Petitioning Cities, some of whom also have Contract  
 7 Annual Minimums that are higher than their actual use in 2017.

8 **Q. YOU EARLIER TESTIFIED THAT UTILITIES ARE FIXED COST**  
 9 **INTENSIVE IN NATURE. HOW DOES THE CONTRACT ANNUAL**  
 10 **MINIMUM METHODOLOGY AS DISCUSSED ABOVE RECOGNIZE**  
 11 **THE DISTINCTION BETWEEN FIXED AND VARIABLE COST?**

12 A. The Contract Annual Minimum Methodology that is agreed to by all parties to the  
 13 contract effectively allocates the District's fixed cost between system users based  
 14 on their proportionate share of system capacity as defined by highest total annual  
 15 usage. This is reflective of the District's capacity commitment to each city. The  
 16 variable cost of the District, when viewed in conjunction with the rebate under  
 17 Policy No. 19, is effectively allocated based on actual usage in the year.

18 **Q. WOULD YOU PLEASE ELABORATE ON WHAT YOU MEAN BY THE**  
 19 **DISTRICT'S CAPACITY COMMITMENT?**

20 A. In my opinion the District's capacity commitment is the District's commitment  
 21 under the Facilities Contract to be prepared to deliver a certain quantity of the  
 22 commodity, in this case water. The difference between "Capacity" and  
 23 "Commodity" is essential to the dispute in this proceeding. Capacity, as defined

by the AWWA is “the water utility’s ability to have a certain quantity or level of resources available to meet the water service needs of its customers.”<sup>22</sup> While the M1 manual does not have a commensurate definition specific to “Commodity,” it does state with regards to “Commodity Costs” that these are costs that “tend to vary with the quantity of water produced.”<sup>23</sup> In other words, these definitions can be summarized as follows:

- **Capacity** – Capability to deliver a certain quantity or level of water
- **Commodity** – Overall level or quantity of water delivered

**Q. PLEASE EXPLAIN WHY THE DIFFERENTIATION BETWEEN CAPACITY AND COMMODITY IS CRUCIAL IN THIS PROCEEDING.**

A. The Petitioning Cities frequently cite to the fact that they are paying for water they have not received. For example, Petitioning Cities’ Witness Johnson states that Richardson has “paid over \$6 million in a single year and over \$43 million since 2001 for water that is neither consumed nor delivered.”<sup>24</sup> However, Mr. Johnson is looking at the service provision as providing a “commodity.” He does not recognize that the District must provide the “capacity” in facilities that have been demanded by Richardson in the past, regardless of whether the capacity is utilized or not. The Annual Minimum Requirement serves as a means by which to allocate to each City its proportionate share of cost associated with the District’s capacity commitment. Even the name of the contract as a “Facilities” contract, rather than a “Water Supply” contract speaks to this distinction.

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<sup>22</sup> Principles of Water Rates, Fees, and Charges, American Water Works Association M1 Manual of Water Supply Practices, 6<sup>th</sup> Edition at 338.

<sup>23</sup> *Id.*

<sup>24</sup> Direct Testimony of Dan Johnson at 26.



1    **Q.    DO YOU HAVE AN ANALOGY TO ILLUSTRATE YOUR POINT**  
2           **REGARDING THE ALLOCATION OF CAPACITY UNDER THE**  
3           **FACILITIES CONTRACT?**

4    A.    In other words, the Petitioning Cities' argument is the same as someone buying a  
5           house or a car, and then claiming that they should only pay for it when they are  
6           physically in residence or physically driving the car. Simply because the house or  
7           car is not being used at a given time does not mean that the cost of that facility does  
8           not have to be recovered. The Contract Annual Minimum Methodology is clearly  
9           structured to recognize that once capacity in facilities is built, the cost of that  
10          capacity must be funded.

11   **Q.    IS IT YOUR TESTIMONY THAT THE DISTRICT MUST PLAN FOR,**  
12          **INSTALL, AND MAINTAIN CAPACITY EQUIVALENT TO THE SUM**  
13          **TOTAL OF ALL SYSTEM USERS CONTRACT ANNUAL MINIMUMS?**

14   A.    No. How the District plans to meet the needed capacity for the system is based on  
15          the best available data and is addressed by Mr. Tom Gooch. My testimony is only  
16          limited to the allocation of cost and how the District determines the proportionate  
17          share of each Member City for purposes of equitably recovering the cost of that  
18          capacity.

19   **Q.    IN YOUR OPINION, DOES A MEMBER CITY'S PROPORTIONATE**  
20          **SHARE OF THE CAPACITY COST CHANGE OVER TIME?**

21   A.    It absolutely will. A Member City's proportionate share will change over time  
22          dependent upon how their annual usage grows or remains relatively constant in  
23          relation to the same changes experienced by other Member Cities. As an example,

1 I have prepared Exhibit CE-12 which shows each Member City's proportionate  
 2 share of the total annual minimum requirement in 2000 and in 2017. As can be  
 3 seen in the exhibit, Garland's proportionate share of the total has decreased from  
 4 21.24% to 14.44% during that time. Mesquite's share has decreased from 11.21%  
 5 to 8.73%. Plano's share has decreased from 31.24% to 28.12%. And Richardson's  
 6 share has decreased from 15.28% to 11.60%. At the same time, Frisco's share has  
 7 increased from 3.81% to 10.76%. While the overall dollars of the District's  
 8 capacity cost has increased, the proportionate share of those increasing dollars has  
 9 decreased specific to the Petitioning Cities.

10 **C. Petitioning Cities' Proposed Rate Design Will Not Substantively**  
 11 **Provide Conservation Signals to the Ultimate Consumer**

12 **Q. WHAT OTHER ISSUES REGARDING THE RATES DO THE**  
 13 **PETITIONING CITIES RAISE?**

14 A. The Petitioning Cities raise what is essentially a rate design argument. Mr. Stowe  
 15 will address whether rate design is appropriately within the scope of this  
 16 proceeding. Setting that aside, I will address specific issues raised by Petitioning  
 17 Cities regarding rate design. Mr. Gooch will address the potential discriminatory  
 18 impact of the Petitioning Cities' rate design proposal.

1    **Q.    WHAT RATE DESIGN PROPOSALS DO THE PETITIONING CITIES**  
2       **HAVE?**

3    A.    The Petitioning Cities claim that the protested rate represents a “declining block  
4       rate.” A declining block rate is a “rate structure in which the unit price of each  
5       succeeding block of usage is charged at a lower unit rate than the previous block.”<sup>25</sup>

6    **Q.    DO YOU AGREE WITH THE PETITIONING CITIES’ ASSERTION THAT**  
7       **THE MEMBER CITY RATES CONSTITUTE A DECLINING BLOCK**  
8       **RATE?**

9    A.    No. How the Member City Rate is classified can depend entirely on your point of  
10      view. For example, while the Petitioning Cities characterize the Member City rate  
11      as a declining block charge, the rate structure could be viewed as a minimum charge  
12      which includes a certain level of usage, coupled with a flat volumetric rate. The  
13      Petitioning Cities Witness Dr. Villadsen even agrees with this point when she states  
14      that the Contract Annual Minimum “can be perceived as a fixed charge for the  
15      initial unit of consumption . . . .”<sup>26</sup>

16   **Q.    WOULD YOU PLEASE ELABORATE ON HOW THE DISTRICT’S RATE**  
17      **DESIGN CAN BE VIEWED AS A MINIMUM CHARGE WITH A FLAT**  
18      **VOLUMETRIC RATE?**

19   A.    Typical retail water rate design often consists of two components, a fixed charge  
20      that a customer must pay per month regardless of usage and some type of  
21      volumetric rate that varies based on use. The fixed charge for retail service can be

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<sup>25</sup> Principles of Water Rates, Fees, and Charges, American Water Works Association M1 Manual of Water Supply Practices, 6<sup>th</sup> Edition at 103.

<sup>26</sup> Direct Testimony of Dr. Bente Villadsen at 51-52.

1 the same for all customers, or it can vary based on meter size or other factors  
 2 deemed important by the regulatory body. Sometimes, such fixed charges include  
 3 an allowance for water consumption. Such a fixed charge retail rate design is  
 4 utilized by the Cities of Mesquite and Plano, who both include 1,000 gallons of  
 5 usage in the minimum charge for retail customers.

6 **Q. VIEWED IN THAT CONTEXT, WHAT IS THE PROPER**  
 7 **CLASSIFICATION OF THE CONTRACT ANNUAL MINIMUM?**

8 A. Viewing the District's rates in this context, the Contract Annual Minimum could  
 9 be said to constitute a fixed charge – that is, the Contract Annual Minimum under  
 10 the contract multiplied by the Member City Rate per 1,000 gallons. The “fixed  
 11 charge” in this case varies not on meter size, but on highest annual usage of a  
 12 particular Member City. Then, if a Member City's usage exceeds the volume  
 13 included in the minimum, they must pay a volumetric charge per 1,000 gallons of  
 14 use. In the District's case, the “volumetric rate” would be the Excess Charge.

15 **Q. HOW DOES VIEWING THE DISTRICT'S RATES AS A FIXED CHARGE**  
 16 **AND A VOLUMETRIC CHARGE IMPACT THE ANALYSIS OF**  
 17 **“EFFECTIVE RATES” AS PRESENTED BY THE CITIES?**

18 A. The “effective rate” analysis for the various Petitioning Cities remains the same.  
 19 However, performing the same analysis on the Petitioning Cities' retail rates  
 20 indicates their retail rate structures suffer from the same criticisms leveled at the  
 21 District's wholesale rate structure.

1 **Q. PLEASE EXPLAIN.**

2 A. In Exhibit CE-13, Retail Rate Analysis of Petitioning Cities, an exhibit that I  
3 prepared, I have calculated retail monthly water bills for each of the Petitioning  
4 Cities at 1,000 gallon increments up to 20,000 gallons utilizing the retail rates  
5 effective during the same time period as the Member City Rate. As noted in this  
6 analysis, unit cost, or in an analogous term to the one used by the Petitioning Cities  
7 the “effective retail rates,” of customers vary at each 1,000 gallon increment. Not  
8 only are the “effective retail rates” different based on actual usage, but the  
9 “effective retail rate” charge per 1,000 gallons DECLINES based on higher usage  
10 up to 15,000 gallons for Garland and up to 20,000 gallons for Plano, Richardson,  
11 and Mesquite. In other words, the Petitioning Cities retail rate structures illustrate  
12 the exact same elements used to claim that the District’s wholesale rates do not  
13 encourage conservation and adversely affect the public interest.

14 **Q. WHY ARE YOU PERFORMING AN “EFFECTIVE RETAIL RATE”**  
15 **ANALYSIS IN THIS CONTEXT?**

16 A. Again, as I noted above, the unit cost analysis – what the Petitioning Cities refer to  
17 as the “effective rate” - does not inform the Commission about whether the  
18 protested rate adversely affects the public interest. It only provides information  
19 about a particular snapshot in time. Because the Petitioning Cities have premised  
20 their case on the concept of a unit cost analysis, I am simply responding to the issues  
21 raised in that context. In my opinion, however, a unit cost analysis is simply not an  
22 applicable basis on which to analyze Member City Rates in the context of Rule  
23 24.133.

1    **Q.    ARE THERE OTHER POINTS MADE BY THE PETITIONING CITIES**  
2           **WITH REGARDS TO RATE DESIGN AND WATER CONSERVATION**  
3           **THAT YOU WOULD LIKE TO ADDRESS?**

4    A.    Yes. Dr. Villadsen contends that conservation incentives should be embedded in  
5           rates for wholesale customers for the same reasons that they should be embedded  
6           in rates for retail customers. While I do not disagree with Dr. Villadsen's statement,  
7           her testimony seems to indicate that the exact same types of conservation pricing  
8           should be included in wholesale rates as a utility would for its retail rates. I disagree  
9           with her on this point.

10   **Q.    IN YOUR ANALYSIS, YOU ARE COMPARING WHOLESALE VERSUS**  
11           **RETAIL RATE STRUCTURES. BASED ON YOUR ABOVE TESTIMONY,**  
12           **IS THIS AN APPROPRIATE COMPARISON?**

13   A.    No. In my opinion, comparison of wholesale rates to retail rates is not appropriate  
14           under Rule 24.133 and as a practical matter in general. Wholesale and retail rates  
15           are designed based on very different sets of circumstances and considerations. My  
16           analysis is driven solely by the need to respond to the testimony of the Petitioning  
17           Cities witnesses as they assert that the District's wholesale rate methodologies  
18           should be comparable to retail rate methodologies. While I agree that wholesale  
19           rates and methodologies should encourage conservation, I do not agree that they  
20           are analogous with retail conservation pricing. Not only is this my opinion, but it  
21           is also the opinion of the State of Texas as well.

1    **Q.    PLEASE EXPLAIN YOUR UNDERSTANDING OF THE GUIDANCE**  
 2           **GIVEN BY THE STATE SPECIFIC TO CONSERVATION PRICING FOR**  
 3           **WHOLESALE WATER PROVIDERS.**

4    A.    In Texas Water Development Board Report 362, the Water Conservation Best  
 5           Management Practices Guide (“BMP Guide”) prepared by the Water Conservation  
 6           Implementation Task Force and dated November 2004, Chapter 2.14 addresses  
 7           Wholesale Agency Assistance Programs and other Best Management Practices  
 8           specific to how Wholesale Providers can encourage water conservation. I would  
 9           note that the guide is clear that a best management practice is not mandatory, but  
 10          should serve as a guide. Specifically, the BMP Guide states that the measures  
 11          implemented “must acknowledge the fundamental decision-making primacy and  
 12          prerogative of . . . water providers.”<sup>27</sup>

13                    In Chapter 2.14, Paragraph C, Point 5, the BMP Guide states that “During  
 14           the process of contracting for water service, either new or renewed, the wholesale  
 15           agency should implement wholesale water rate structures that provide incentives to  
 16           conserve.” As such, the State has been clear – wholesale agencies should, where  
 17           possible, utilize wholesale rate structures that provide incentive to conserve.

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<sup>27</sup> Texas Water Development Board Report 362, Water Conservation Implementation Task Force, Water Conservation Best Management Practices Guide, November 2004.  
[http://www.twdb.texas.gov/publications/reports/numbered\\_reports/doc/R362\\_BMPGuide.pdf](http://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R362_BMPGuide.pdf).

1    **Q.    IN YOUR OPINION, WHY IS SUCH A DISTINCTION BETWEEN**  
 2           **WHOLESALE RATE STRUCTURES AND RETAIL RATE STRUCTURES**  
 3           **MADE?**

4    A.    As noted in the M1 Manual published by the AWWA, the design of a rate structure  
 5           is about sending price signals to customers. Specifically, it states, “Many of the  
 6           desired outcomes of a rate structure depend on customers receiving a price signal  
 7           or an understanding of the cost of their consumption.”<sup>28</sup> In the case of the District,  
 8           the end-use customers of the water are the retail customers of each of the Member  
 9           Cities. The price signal sent to these customers is dependent upon the rate structure  
 10          of the retail provider (e.g., the Member City), not the wholesale provider (e.g., the  
 11          District). The District’s rate design impacts the cost incurred by the Member Cities,  
 12          but it does not carry influence beyond that point.

13   **Q.    TO BE CLEAR, HOW DOES THE RATE DESIGN OF THE DISTRICT**  
 14          **INFLUENCE RETAIL CUSTOMER BEHAVIOR?**

15   A.    It does not. End-use customer behavior is influenced by the charges they pay to the  
 16          Member Cities as the retail provider. Dr. Villadsen also agrees on this point. In  
 17          her deposition she stated as follows, “Their actual use as we see here is based on  
 18          the rates that customers of the cities are seeing, not based on the District’s rates.”<sup>29</sup>

19                 In the context of her deposition transcript, Dr. Villadsen is referring to the  
 20          use of wholesale water of the petitioning Cities. I have attached a copy of the  
 21          relevant pages of her testimony as Exhibit CE-14.

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<sup>28</sup> Principles of Water Rates, Fees, and Charges; Manual of Water Supply Practices (M1), American Water Works Association, Sixth Edition, Page 95.

<sup>29</sup> Exhibit CE-14, Transcript of Oral Deposition of Bente Villadsen, Ph.D. at 155.



1    **Q.     ARE YOU ABLE TO PROVIDE ANOTHER EXAMPLE THAT FURTHER**  
2       **ILLUSTRATES YOUR POINT?**

3    A.     When I visit a gas station to put fuel in my car, I don't have any idea what the  
4           station paid for the fuel or the pricing structure of the wholesale fuel provider to the  
5           retail gas station. All I know is the price per gallon I am paying to the retail station  
6           at that point, and that influences where I choose to fill my tank.

7                 This is analogous to the service provision to retail customers by a Member  
8           City. As a retail customer of the City of Allen, when I receive my water bill, I  
9           would not know the unit cost the city paid to the District were it not for my  
10          involvement in this proceeding. The Member City Rate, as charged in accordance  
11          with the Facilities Contract, impacts the overall retail price I pay to the City of  
12          Allen, but that in itself does not induce me to conserve.

13   **Q.     IN YOUR OPINION, WERE THE DISTRICT TO ADOPT AN INCLINING**  
14       **BLOCK RATE AS SUGGESTED BY DR. VILLADSEN, WHAT IMPACT**  
15       **WOULD IT HAVE ON RETAIL WATER USE?**

16   A.     How the District prices service has no direct impact on retail use as the rate structure  
17           of the District does not carry a price signal to the end use customer. Taking it to  
18           the extreme, if the District adopted an inclining block rate, and a Member City  
19           adopted a declining block rate, then the declining block rate would ultimately be  
20           the structure which influences end-use customer behavior in complete opposition  
21           to the District's rate structure.

1    **Q.     IS EACH MEMBER CITY FREE TO CHARGE RATES AS THEY DEEM**  
2        **REFLECTIVE OF THEIR COUNCIL’S GOALS AND OBJECTIVES?**

3    A.    Yes. As an example, at the time the Member City Rate being protested in this  
4        proceeding was in effect, the City of Plano charged \$0.60 per 1,000 gallons for  
5        customer usage between 1,000 and 5,000 gallons. This is a retail rate that is less  
6        than the cost per unit paid to the District. In my opinion, it is arguable that charging  
7        a retail rate per unit that is less than the cost from the District is not conducive to  
8        encouraging conservation. However, that is a retail pricing decision of the City of  
9        Plano.

10   **Q.    WHAT WOULD BE ACCOMPLISHED BY ADOPTING AN INCLINING**  
11       **BLOCK RATE STRUCTURE?**

12   A.    Adopting an inclining block rate structure would only serve to shift cost recovery  
13        between the Member Cities dependent upon how such a structure is designed. Such  
14        a structure could, in fact, result in cost increases to some of the Petitioning Cities  
15        were it designed such that the largest customers were subject to higher rates at the  
16        higher tier levels. Mr. Gooch discusses this issue in further detail in his testimony.

17   **Q.    ARE THERE ANY OTHER ISSUES RAISED BY THE PETITIONING**  
18       **CITIES REGARDING CONSERVATION?**

19   A.    Yes. Mr. Totten alleges that the District abused its monopoly power when it entered  
20        into a settlement agreement regarding the Bonham Dam and Reservoir project, now  
21        referred to as the Lower Bois D’Arc project. Specifically, Mr. Totten argues that  
22        the settlement “imposed” conservation measures on the Member Cities. However,  
23        water conservation measures are consistent with District and State policy, and it is

1 not reasonable, in my opinion, to argue that conservation measures evidence an  
2 abuse of monopoly power.

3 As for the argument that the Member Cities did not have an opportunity to  
4 weigh in on the settlement, that is not correct. As discussed by other District  
5 witnesses, it is not disputed that Member Cities have representatives on the  
6 District's Board of Directors. That is the method through which Member Cities'  
7 participate in the decisions of the District.

8 **Q. PLEASE SUMMARIZE YOUR OPINION REGARDING CHANGES**  
9 **PROPOSED TO THE RATE DESIGN AND THE DISTRICT'S WATER**  
10 **CONSERVATION MEASURES.**

11 A. It is clear to me that the District's rate design, which has been in place since the  
12 1960s, does not adversely affect the public interest. More specifically,

- 13 • It is my opinion that the District's wholesale rate design appropriately  
14 encourages conservation and does not represent an abuse of monopoly  
15 power.
- 16 • The retail rate designs currently employed by the Petitioning Cities suffer  
17 from the exact same criticisms they levy at the District.
- 18 • The adoption of an inclining block rate structure by the District would be  
19 inconsequential to overall usage by end-use retail customers as usage by  
20 these customers is impacted by the retail rate design of the Member Cities.

## **VIII. THE FACILITIES CONTRACT PROVIDES OTHER VALUABLE CONSIDERATION**

**Q. WHAT OTHER FACTORS, IF ANY, SHOULD THE COMMISSION WEIGH IN EVALUATING WHETHER THE DISTRICT ABUSED MONOPOLY POWER?**

A. As Mr. Stowe testified, Rule 24.133(a)(3)(C) provides that in considering whether a protested rate evidences the seller's abuse of monopoly power the Commission shall weigh, where the seller demands the protested rate pursuant to a contract, other valuable consideration received by the parties' incident to the contract. In this case, that includes the District and all of the Member Cities.

**Q. WHAT DO YOU CONSIDER TO BE “OTHER VALUABLE CONSIDERATION?”**

A. Based upon my experience, my evaluation of the Facilities Contract, and other documents I have reviewed in this proceeding, in my opinion, valuable consideration is any type of economic benefit derived from the contractual relationship. As described in detail by Mr. Sanderson, in this case the principle purpose of the Facilities Contract is construction of facilities necessary to deliver water to the Member Cities. Other valuable consideration would include, but not necessarily be limited to, the economies of scale that are derived from the contractual relationship.

1    **Q.    IN THEIR DIRECT TESTIMONY, HAVE THE PETITIONING CITIES**  
2           **ADDRESSED OTHER VALUABLE CONSIDERATION THAT THEY**  
3           **HAVE RECEIVED AS A RESULT OF THE CONTRACT WITH THE**  
4           **DISTRICT?**

5    A.   No. The direct testimony of the Petitioning Cities only addresses their complaints  
6           and criticisms of the District and the protested rates, as well as the other valuable  
7           consideration they assert is received by the District. It does not, based on my  
8           review, cite the other valuable consideration received by the Member Cities as a  
9           result of the Facilities Contract.

10   **Q.   IN YOUR OPINION, IS THERE OTHER VALUABLE CONSIDERATION**  
11           **THAT HAS BEEN RECEIVED BY THE CITIES AS A RESULT OF THE**  
12           **FACILITIES CONTRACT THAT SHOULD BE CONSIDERED IN THIS**  
13           **PROCEEDING?**

14   A.   Yes. Specifically, I believe there are two components of valuable consideration  
15           that should be noted. First, the Member Cities have enjoyed the economies of scale  
16           associated with water service provided by a single District that serves multiple  
17           municipalities. Second, the Member Cities have a dedicated source of water which  
18           is contractually obligated to meet all of their water needs and which has been a  
19           critical component in the substantial growth and development of the Collin County  
20           area.

1    **Q.    WILL YOU BE ADDRESSING BOTH OF THESE ISSUES IN YOUR**  
2        **TESTIMONY?**

3    A.    My testimony will focus solely upon the economies of scale that I mentioned. Mr.  
4        Stowe will address the fact that the Facilities Contract obligates the District to meet  
5        the water needs of the Member Cities and the benefit received by the Member Cities  
6        of this obligation.

7    **Q.    PLEASE EXPLAIN WHAT YOU MEAN BY ECONOMIES OF SCALE.**

8    A.    “Economies of scale” is an economic concept where the fixed cost of production or  
9        investment is reduced with increased scale. For example, assume a water plant with  
10       one million gallons per day of capacity costs \$1 million, while a plant with two  
11       million gallons per day of capacity costs \$1.5 million. In this case, the per unit cost  
12       of capacity of the smaller plant is greater than the per unit cost of capacity of the  
13       larger plant. By participating as part of the District, the collective Member Cities  
14       are able to build larger projects and take advantage of these fixed cost savings that  
15       come from increased scale.

16   **Q.    ARE ECONOMIES OF SCALE RECOGNIZED BY THE STATE AS A**  
17        **BENEFIT TO ENTITIES SUCH AS THE CITIES?**

18   A.    Yes. Exhibit CE-15 is a true-and-correct copy of a regulatory guidance document  
19        produced by TCEQ which discusses the feasibility of regionalizing water and  
20        wastewater facilities. In this document, it is noted that “the costs associated with  
21        compliance are higher per person as the system size decreases.”<sup>30</sup> Said another  
22        way, the fixed costs associated with developing systems that meet regulatory

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<sup>30</sup> The Feasibility of Regionalizing Water and Wastewater Utilities: A TCEQ Policy Statement, January 2003 at 4.

1 requirements per person is inverse to the size of the system. Larger systems are  
2 able to take advantage of economies of scale and lower the fixed cost, per person,  
3 of providing clean and safe drinking water. The Member Cities of the District have  
4 benefited from this relationship between fixed cost and the overall size of the  
5 system.

6 **Q. ARE THERE OTHER AREAS WHERE ECONOMIES OF SCALE ARE**  
7 **EVIDENT TO THE BENEFIT OF THE MEMBER CITIES?**

8 A. Yes, specifically, the issuance of debt. When debt is issued, there are numerous  
9 services that are provided by financial advisors, legal counsels, and rating agencies.  
10 Some of these expenses associated with debt issuance are fixed in nature. When  
11 debt is issued in larger quantities, and the cost spread over more units, the overall  
12 cost of borrowing can be lowered due to economies of scale. This is just another  
13 example of the other valuable consideration that is the economic benefits, received  
14 from the Cities as a result of the contract.

15 **Q. DO THE PETITIONING CITIES MAKE ANY ACKNOWLEDGEMENT**  
16 **REGARDING THE BENEFITS OF ECONOMIES OF SCALE?**

17 A. No.

18 **Q. DO THE PETITIONING CITIES ADDRESS THE ISSUE OF OTHER**  
19 **VALUABLE CONSIDERATION?**

20 A. Mr. Totten raises several issues that he asserts relates to this factor. Mr. Stowe will  
21 address each of the contentions made by the Petitioning Cities.

1 **IX. RATES FOR SERVICE CHARGED TO DISTRICT RETAIL CUSTOMERS**

2 **Q. DOES THE DISTRICT PROVIDE RETAIL WATER SERVICE?**

3 A. Yes. As seen in the District's response to the Cities RFI 1-39, the District has retail  
4 service agreements with approximately thirty customers.

5 **Q. WHY ARE THE RATES CHARGED BY THE DISTRICT TO PROVIDE**  
6 **RETAIL WATER SERVICE RELEVANT?**

7 A. Rule 24.133(a) provides that the Commission shall determine whether the protested  
8 rate adversely affects the public interest. One of the criteria that the Commission  
9 must consider is whether the protested rate evidences an abuse of monopoly power.  
10 One of the factors the Commission may weigh in evaluating this criteria is the  
11 seller's rates for water charged to its retail customers, compared to the retail rates  
12 the purchasers charge its retail customers as a result of the protested rate. Rule  
13 24.133(a)(3)(H) is discussed further by Mr. Stowe.

14 **Q. IS IT YOUR UNDERSTANDING THAT THE DISTRICT DESIRES TO BE**  
15 **A RETAIL SERVICE PROVIDER AS WELL AS A WHOLESALE**  
16 **SERVICE PROVIDER?**

17 A. No. It is my understanding that the provision of retail service to these customers is  
18 only temporary and is offered on a very limited basis. More specifically, the more  
19 recent retail agreements contain a clause which specifically states, "water service  
20 from the District should be considered temporary as it is to be discontinued when  
21 other potable water service is available as determined by the District."<sup>31</sup> It appears

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<sup>31</sup> District Response to Staff RFI 1-5, Supplemental Response on 9-7-2017, Service Agreement with Diaz, Carolina, 4-29-2013, Page 7, Paragraph F.



1 that the service provided by the District is only in areas where other potable water  
2 service is not yet available from a more traditional retail service provider.

3 **Q. WHAT DOES THE DISTRICT CURRENTLY CHARGE FOR SERVICE**  
4 **TO THESE RETAIL CUSTOMERS?**

5 A. Based on the District's supplemental response to Cities RFI 1-39, through  
6 September 30, 2017, the District charged the following rates to its retail residential  
7 customers.

8	Minimum Charge (Includes 2,000 Gallons)	\$15.00
9	2,000 – 10,000 gallons	\$5.16 per 1,000 gal
10	10,000 to 20,000 gallons	\$7.04 per 1,000 gal
11	Over 20,000 gallons	\$8.79 per 1,000 gal

12 **Q. HOW DO THESE RATES COMPARE TO THE RATES BEING**  
13 **PROTESTED IN THIS DOCKET?**

14 A. The per 1,000 gallon Member City Rate being protested in this docket is \$2.53 per  
15 1,000 gallons, and \$0.41 per 1,000 gallons specific to the Excess Charge. The  
16 lowest retail volumetric rate charged by the District is over 100% higher than the  
17 protested rate  $((\$5.16 - \$2.53) / \$2.53)$ .

18 **Q. HOW DO THESE RATES COMPARE WITH THE RETAIL SERVICE**  
19 **RATES OF THE PETITIONING CITIES?**

20 A. Exhibit CE-16 is a comparison that I prepared of the District's retail service rates  
21 in effect at the time of the protested rates with the retail rates of the petitioning  
22 cities in effect at approximately the same time. The effective dates of the rates do  
23 vary somewhat but are close enough temporally to provide a valid comparison.

1           However, the rate structures across the comparative group has significant variances,  
2           so direct comparison is difficult.

3                     To try to provide a point of comparative reference, I have calculated  
4           monthly bills for each provider at 1,000 gallons intervals from 0 to 20,000 gallons  
5           of use. The provided charts then plot the monthly bill for the District's retail  
6           customer at that usage level against a bar demonstrating the range of monthly bills  
7           between all of the listed providers.

8   **Q.    IN YOUR OPINION, DO THE RETAIL RATES OF THE DISTRICT, AS**  
9           **COMPARED TO THE RETAIL RATES OF THE PETITIONING CITIES**  
10          **REPRESENT AN ABUSE OF MONOPOLY POWER BY THE DISTRICT?**

11   A.    No. The District is a limited retail provider of last resort and the retail service  
12          provided is temporary at best. Further, when the monthly bills for the District's  
13          retail customers are compared to monthly customer bills for the Petitioning Cities'  
14          retail customers, the District is only the lowest cost provider at the 2,000 and 3,000  
15          gallon levels. At the higher volumes analyzed, the District's monthly charges more  
16          closely approximate the charges of the more expensive retail providers. In my  
17          opinion, the retail charges of the District are comparable to the retail charges of the  
18          Petitioning Cities and do not represent an abuse of monopoly power.

1     **X. THE PROTESTED RATE IS NOT UNREASONABLY PREFERENTIAL,**  
2                                   **PREJUDICIAL, OR DISCRIMINATORY**

3     **Q.     HOW DOES THE PROTESTED RATE CHARGED TO THE**  
4             **PETITIONING CITIES COMPARE TO THE RATE CHARGED TO THE**  
5             **NON-PETITIONING MEMBER CITIES?**

6     A.     The 2017 protested rate is the same rate charged to all Member Cities. As explained  
7             by Mr. Sanderson, all Member Cities were charged a rate of \$2.53 per thousand  
8             gallons and an Excess Charge, if applicable, of \$0.41 per thousand gallons.

9     **Q.     HOW DOES THE PROTESTED RATE CHARGED TO THE**  
10            **PETITIONING CITIES COMPARE TO THE RATE CHARGED TO THE**  
11            **OTHER CUSTOMERS?**

12    A.     The 2017 protested rate charged to the Member Cities is lower than the rate charged  
13             to the other customers. Again, this is explained by Mr. Sanderson.

14    **Q.     WHY IS THE COMPARISON OF RATES RELEVANT?**

15    A.     As explained by Mr. Stowe, Rule 24.133(4) provides that in evaluating whether the  
16             protested rate adversely affects the public interest, the Commission may evaluate  
17             whether the protested rate is *unreasonably* preferential, prejudicial, or  
18             discriminatory, compared to the wholesale rate the seller charges other wholesale  
19             customers. As is clear, the protested rate charged by the District to all Member  
20             Cities is the same. On the other hand, the protested rate charged by the District to  
21             non-member customers is higher.

1   **Q.    WHAT ISSUES HAVE BEEN RAISED BY THE PETITIONING CITIES**  
2       **REGARDING THE COMPARISON OF RATES CHARGED BY THE**  
3       **DISTRICT?**

4    A.    As I discussed in detail above, the Petitioning Cities compare the unit cost of water  
5           charged to the Petitioning Cities to the unit cost of water charged to the Non-  
6           Petitioning Cities. They refer to the unit cost as the “effective rate.” This is the  
7           same issue raised in the context of the McKinney Problem back in 1969. This issue  
8           will be the focus of my testimony while other issues will be addressed by other  
9           witnesses.

10   **Q.    IN YOUR OPINION, HOW DOES THE UNIT COST OF WATER INFORM**  
11       **THE COMMISSION ABOUT THE RATES CHARGED BY THE DISTRICT**  
12       **IN THE CONTEXT OF RULE 24.133(4)?**

13   A.    As I discussed above, based upon my experience, the unit cost of water only  
14           informs the Commission about the unit cost users of the system pay as a result of  
15           the allocation methodology and the customer’s usage **at a single point in time.**  
16           The finding from such an analysis changes year-to-year.

17               While an effective rate analysis can be used to make comparisons about the  
18           particular efficiency of a customer’s overall use compared with their contracted  
19           amount, in my opinion, it does not serve as a basis for assessing whether the  
20           Member City Rate that is applied, in accordance with an agreed to contract, to all  
21           customers in the same manner adversely affects the public interest.

22               Because the Petitioning Cities have premised their case on the concept of a  
23           unit cost analysis, it is my opinion that I must respond to the issues raised.

1           However, in my opinion, a unit cost analysis is simply not a firm basis on which to  
2           analyze Member City Rates in the context of Rule 24.133.

3   **Q.   WHAT ISSUES ARE OTHER WITNESSES ADDRESSING AS IT**  
4   **RELATES TO RULE 24.133(a)(4)?**

5   A.   The Petitioning Cities argue that the District should have changed the rate charged  
6           by the District to non-member customers. Mr. Stowe will address that issue.

7   **Q.   WHAT OBSERVATIONS DO YOU HAVE ABOUT THE UNIT COST OF**  
8   **WATER IN THIS CONTEXT?**

9   A.   My observations about the unit cost of water in this context are consistent with my  
10          earlier testimony. As I have already stated, the unit cost of water experienced by  
11          individual users of the system is dependent upon the agreed upon contract annual  
12          minimum methodology and the consumption pattern of each individual user. In a  
13          regional system, such as the District, I would be surprised if the unit cost of water  
14          would ever be the same among the Member Cities in the same year or by each  
15          respective Member City over time.

16   **Q.   HAVE YOU REVIEWED THE DEPOSITION TRANSCRIPT OF DR.**  
17   **VILLADSEN?**

18   A.   Yes.

1   **Q.    IN HER DEPOSITION, DOES DR. VILLADSEN AGREE WITH YOUR**  
2       **CONCLUSION THAT THE EFFECTIVE RATE WILL CHANGE OVER**  
3       **TIME?**

4    A.    Yes. Dr. Villadsen concurs that the effective rate will change in accordance with  
5           changes to the allocated revenue requirement and a customer's particular usage.<sup>32</sup>  
6           I have attached a copy of the relevant pages of the deposition as part of Exhibit  
7           CE-14.

8   **Q.    HOW DOES THIS COMPARE TO RETAIL WATER RATES?**

9    A.    As I have already discussed, the issues raised here by the Petitioning Cities could  
10          also be asserted in the context of retail water rates charged by the Petitioning  
11          Member Cities. Here I will use the City of Plano's ("Plano") water rates in effect  
12          as the same time as the protested rate as an example.

13                 Plano's retail rates are composed of a base charge and a tiered volumetric  
14                 charge. The base charge is determined by a residential customer's meter charge  
15                 and the volumetric charge differs based upon various consumption tiers. In my  
16                 example, I will compare two customers. Under current residential rates charged by  
17                 Plano, 1,000 gallons is included in the minimum charge. I will also assume that the  
18                 first customer is away on vacation for the majority of the billing period and uses no  
19                 more than 1,000 gallons. The second customer is assumed to be a low volume user  
20                 and only consumes 2,000 gallons. As such, the second customer is only subject to  
21                 Plano's first retail rate tier which charges \$0.60 per 1,000 gallons for usage from

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<sup>32</sup> Transcript of Oral Deposition of Bente Villadsen, Ph.D. at 146.

1 1,000 to 5,000 gallons. The table below summarizes the results for these two  
2 hypothetical customers.

3 **Table 3**  
4 **Hypothetical Comparison of Plano Retail Customers**

	Customer 1	Customer 2
Monthly Base Charge (includes 1,000 gal of use)	\$ 20.48	\$ 20.48
Volumetric Rate (per 1,000 gallons)	0.60	0.60
Assumed Consumption (gal)	1,000	2,000
Monthly Base Charge	\$ 20.48	\$ 20.48
Volumetric Charges	0.00	0.60
Total Monthly Bill	\$ 20.48	\$ 21.08
Cost per 1,000	\$ 20.48	\$ 10.54

**5 Q. WHAT OBSERVATIONS TO DO YOU DRAW FROM THIS EXAMPLE?**

6     A.     First, Customer 1 who has consumed only 1,000 gallons does not experience a  
7             reduction in the monthly base charge as compared to Customer 2 who consumes  
8             2,000 gallons of water. This rate structure does not make the rate charged to  
9             Customer 2 ***unreasonably*** preferential compared to the rate charged to Customer  
10            1. Nor does the rate structure make the rate charged to Customer 1 discriminatory  
11            compared to the rate charged to Customer 2.

Second, the cost per 1,000 gallons between the two customers is vastly different. By consuming only 1,000 gallons more, Customer 2 is subject to a cost per 1,000 that is over 48% less than Customer 1. However, the rate applied does not differ except to the fact that Customer 2 is subject to a volumetric rate that is not paid by Customer 1. The difference in the cost is driven solely by the usage patterns of each customer and is reflective of the cost recovered in the fixed

1 component of the rate. This serves to illustrate that the largest factor impacting the  
2 cost per 1,000 of a customer is the actual usage of the customer.

3 Third, I would expect the usage pattern for Customer 1 to change when  
4 Customer 1 returns from vacation. The unit cost may be higher or lower than  
5 Customer 2 over time.

6 Fourth, while this is a greatly simplified example, I would expect that there  
7 are a myriad of different unit costs experienced by customers on the retail system  
8 over time. The snapshot of one billing period is simply insufficient to draw any  
9 long-term conclusions.

10 **Q. HOW DOES THIS INFORM THE ANALYSIS IN THIS CASE?**

11 A. As I have said, over time the per-unit cost will change for all customers, and will  
12 vary, potentially dramatically, for the same customer. To my knowledge, there is  
13 not a single provider of water service that prices services to customers such that the  
14 cost per 1,000 is exactly the same between all customers.

15 **Q. HOW WOULD YOU SUMMARIZE THIS VISUALLY?**

16 A. I have prepared a chart for each Member City which summarizes when that Member  
17 City experienced the “McKinney Problem” over time. These are contained in  
18 Exhibit CE-17. In times when a Member City’s actual use is less than their contract  
19 annual minimum requirement, their cost per 1,000 will be higher than the Member  
20 City Rate in effect at that time.

21 **Q. WHAT IS YOUR CONCLUSION AS IT RELATES TO 24.133(a)(4)?**

22 A. There is nothing in the Facilities Contract or Contract Annual Minimum  
23 Methodology that make the service provided to Non-Petitioning Cities



1        ***unreasonably*** preferential, prejudicial, or discriminatory compared to the  
2        wholesale water rates charged to the Petitioning Cities. Variances in the unit cost  
3        are a result of the usage patterns of each individual customer. One would expect  
4        such variances in a regional system. In my opinion, there is nothing that Petitioning  
5        Cities have raised that would merit abandoning the regional approach or shifting  
6        costs from one user of the system to another at this time.

7 **XI. CONCLUSION**

8 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

9 A. In summary, I believe the following is abundantly clear:

- 10           • The protested rate does not financially impair the ability of the Petitioning  
11           Cities to continue to provide continuous and adequate service as it relates  
12           to Rule 24.133(a)(2);
- 13           • Policy No. 8 as employed by the District is not evidence of an abuse of  
14           monopoly power in the context of Rule 24.133(a)(3)(A);
- 15           • The District has clearly established the changed conditions that led to the  
16           rate change by the District in accordance with Rule 24.133(a)(3)(B);
- 17           • The District's policies and rates promote water conservation within the  
18           framework of Rule 24.133(a)(3)(E);
- 19           • The District's retail water rates are comparable to those of the Petitioning  
20           Cities from the perspective of Rule 24.133(a)(3)(G); and
- 21           • The protested rate is not *unreasonably* preferential, prejudicial, or  
22           discriminatory when compared to the wholesale water rates the seller  
23           charges the non-petitioning Member Cities within the framework of Rule  
24           24.133(a)(4).

25 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

26 A. Yes, it does.



**Chris D. Ekrut**  
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Mr. Ekrut currently serves as a Director of NewGen Strategies and Solutions, LLC Environmental Practice. He has been in this role since September 2012. Prior to joining NewGen Strategies and Solutions, Mr. Ekrut joined J. Stowe & Co. (now NewGen) as a Senior Consultant in May 2008 and was subsequently promoted to Manager in December 2009. Prior to joining J. Stowe & Co., Mr. Ekrut was employed by R.W. Beck, Inc. as a Staff Consultant beginning in June 2005, after earning his Masters in Public Administration from the University of North Texas and graduating with honors. Prior to beginning his consulting career, Mr. Ekrut served as an intern for U.S. Congressman Larry Combest, Texas 19<sup>th</sup> District.

## EDUCATION

- Masters of Public Administration, University of North Texas
- Bachelor of Arts in Public Administration, West Texas A & M University

## PROFESSIONAL AFFILIATIONS

- American Water Works Association
- Texas Municipal Utilities Association

## EXPERIENCE

During his career, Mr. Ekrut has assisted in conducting a variety of engagements for water, wastewater, drainage, solid waste, electric, and natural gas utilities. A sampling of Mr. Ekrut's experience is included below:

- Assisted in conducting an Economic Impact and End User Impact Analysis for the Toledo Bend Water Supply Project, which proposes to supply at least 600,000 acre-feet of raw water to the DFW Metroplex.
- Assisted the City of Arlington in conducting a wholesale water sales assessment study.
- Assisted the Texas Water Development Board in conducting a Socioeconomic Analysis of Select Interbasin Transfers in Texas and developing a model to quantify the financial impact of water conservation measures.
- Assisted the North Texas Municipal Water District in analyzing rate alternatives for its Member Cities.
- Assisted in conducting Socioeconomic Analysis in support of the Region C Study Commission Report in response to SB 3, 90<sup>th</sup> Texas Legislative Session requirements.
- Assisted Dallas Water Utilities and Tarrant Regional Water District in conducting a study of the Raw Water Transmission System Integration of Lake Palestine.
- Served as the Project Controls lead for the Program Management of the Waco Metropolitan Area Regional Sewer System Treatment Plant Expansion Program.
- Conducted a top-down Water Audit and assisted in the development of a wholesale water contract for the City of Gainesville, Texas.
- Assisted the City of Terrell, Texas in conducting a top-down water audit and developing a Standardized Developer Agreement related to Water and Wastewater Infrastructure.
- Assisted the City of Denton, Texas in developing and Indirect Cost Allocation Model for general fund and internal service fund departments.

## Chris D. Ekrut

Director, Environmental Practice

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- Assisted the City of Gunter, Texas in performing due-diligence and establishing a developer proposed Tax Increment Reinvestment Zone.
- Assisted Nueces County Water Control & Improvement District No. 4 in reviewing and negotiating a water rate methodology with the City of Corpus Christi.
- Assisted the Pittsburgh Water and Sewer Authority in reviewing the appropriateness of subsidy payments made to Pennsylvania America Water Company
- Assisted the Navajo Tribal Utilities Authority in updating and amending its water and wastewater service tariff terms and conditions
- Assisted the City of Killeen in evaluating the feasibility of establishing and setting a user fee for a Transportation Utility
- Assisted the City of New Braunfels in conducting a benchmarking study of the fees charged by its Planning and Community Development Department

### Utility Business Plans:

- City of Blue Mound, Texas
- Town of Prosper, Texas
- City of Gainesville, Texas

### Operations and Management Reviews:

- Lower Colorado River Authority's Water and Wastewater Service Unit
- Brownsville Public Utilities Board

### System Valuations:

- City of Blue Mound, Texas
- City of Oak Point, Texas
- Town of Lakeside, Texas
- City of Southmayd, Texas
- Mustang Special Utility District
- City of Tyler, Texas

### Wholesale and/or Retail Water, Reclaimed Water, Wastewater, and Drainage Cost of Service and Rate Design Studies:

- Town of Addison, Texas
- City of Colleyville, Texas
- City of Aledo, Texas \*
- Double Diamond Utilities Co. \*
- City of Amarillo, Texas
- City of Farmersville, Texas \*
- City of Bellaire, Texas
- City of Gainesville, Texas \*
- City of Bonham, Texas \*
- City of Garland, Texas \*
- City of Burkburnett, Texas \*
- City of Glenn Heights, Texas \*
- City of Burnet, Texas \*
- City of Graham, Texas
- Canyon Regional Water Authority \*
- City of Grapevine, Texas \*
- City of Cedar Park, Texas
- City of Killeen, Texas \*
- City of Cisco, Texas
- Town of Lakeside, Texas \*
- City of Coleman, Texas
- City of Lancaster, Texas \*

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- City of League City, Texas
  - City of Lewisville, Texas \*
  - City of Lubbock, Texas
  - City of Mansfield, Texas \*
  - City of McGregor, Texas \*
  - City of Mexia, Texas
  - City of Murphy, Texas
  - Navajo Tribal Utility Authority
  - Nueces County Water Control and Improvement District No. 3
  - City of Paris, Texas \*
  - Pittsburgh Water and Sewer Authority
  - City of Portland, Texas
  - Possum Kingdom Water Supply Corporation
  - Town of Prosper, Texas \*
  - City of Roanoke, Texas
  - City of Seagoville, Texas \*
  - City of Terrell, Texas \*
  - Trophy Club Municipal Utility District No. 1 \*
  - City of Tyler, Texas \*
  - City of Waco, Texas \*
  - City of Weatherford, Texas \*
  - City of Willow Park, Texas \*
- \* Engaged for multiple studies

**Expert Witness Testimony Development and/or Litigation Support**

- SOAH Docket Nos. 582-02-1652, 582-03-1820, 582-03-1821, & 582-03-1824 – Applications of McKinney, Melissa, and Anna and North Collin Water Supply Corporation to Amend CCN Nos. 10194, 11482, 12976, 11035 and Sewer CCN No. 20898 and of the City of Melissa to Obtain a Sewer CCN in Collin County
- SOAH Docket No. 582-06-1366, Woodcreek Ratepayers Coalition Petition to Appeal the City of Woodcreek's Decision to Establish Water and Sewer Rates Charged by Aqua Utilities
- SOAH Docket No. 582-06-2023, Application of the Town of Lindsay to Amend Water and Sewer Certificates of Convenience and Necessity Nos. 13025 and 20927
- SOAH Docket No. 582-07-2049, Petition of BHP Water Supply Corporation Appealing the Wholesale Water Rate Increase of Royse City, Texas and Request for Interim Rates
- SOAH Docket No. 582-08-1318, Application of Mustang Special Utility District to Decertify a Portion of Sewer Certificate of Convenience and Necessity No. 20867 From AquaSource Development, Inc. DBA Aqua Texas Inc., and to Amend Sewer CCN No. 20930 In Denton County, Texas
- SOAH Docket No. 582-08-0698, Application of Double Diamond Utilities Company to Change its Water Tariff
- SOAH Docket No. 582-08-1341, Application of Monarch Utilities I, L.P., to Change Water and Sewer Rates and Tariffs
- SOAH Docket No. 582-08-2580, Appeal by Midway Water Utilities, Inc. CCN No. 11571, From the Ratemaking Actions of the City of Oak Point
- SOAH Docket No. 582-09-4288, Application of Double Diamond Utilities Company, Inc. to Change its Water Tariff
- SOAH Docket No. 582-09-6112, Application of Double Diamond Utilities Company, Inc. to Change its Sewer Tariff
- SOAH Docket No. 582-12-5332, Application of Upper Trinity Regional Water District for Water Use Permit No. 5821

## **Chris D. Ekrut**

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- SOAH Docket No. 582-14-2854, Petition of Fort Belknap Water Supply Corporation and Graham East Water Supply Corporation to Appeal the Wholesale Water Rate increased imposed by the City of Graham
- SOAH Docket No. 473-15-037, Application of Double Diamond Utilities Co. for a Water and Sewer Rate / Tariff Change (37752-R and 37753-R)
- SOAH Docket No. 473-16-1836.WS, Ratepayers' Appeal of the Decision by Trophy Club Municipal Utility District No. 1 to Change Rates
- SOAH Docket No. 473-16-1848.WS, Application of Quadvest, LP for a Rate/Tariff Change
- SOAH Docket No. 473-16-2873.WS, Application of Monarch Utilities I, LP to Change Rates for Water and Sewer Service
- SOAH Docket No. 473-17-0067.WS, Application of Double Diamond Properties Construction Co. DBA Rock Creek for a Water Rate/Tariff Change
- Expert Assistance to Office of Public Utility Counsel (OPUC) for the following PUC Rulemaking Project Nos.
  - PUC Project No. 43871
  - PUC Project No. 43876
  - PUC Project No. 43967
  - PUC Project No. 44462
  - PUC Project No. 44706

### **Solid Waste Experience**

- Assisted in conducting a Municipal Solid Waste Operations Study for the City of Denton, Texas.
- Assisted in the conduct of an Alternative Feasibility Study for the City of Peoria, Arizona.
- Assisted Siemens Energy and Environmental Services in conducting a detailed Waste Shed Analysis of the Dallas-Ft. Worth Metroplex in support of a new, environmental-friendly waste processing technology.
- Assisted in conducting a Mixed Recycling Facility (MRF) Study for the North Central Texas Council of Governments.

### **Electric Utility Experience**

- Assisted Garland Power & Light in the conduct of an Asset Inventory and Assessment in 2006, filing their 2006 and 2006 Earnings Monitoring Report and 2014 Transmission Cost of Service Study with the Public Utility Commission of Texas.
- Assisted the City of Brenham, Texas in conducting an Electric Cost of Service and Rate Design Study and developing a Power Cost Recovery Factor (PCRF).
- Assisted Austin Energy in modifying and refining the excel-based financial forecasting model for the utility.

### **Gas Utility Experience**

- Assisted the City of Brenham, Texas in analyzing and amending their Gas Cost Adjustment Factor
- Provided litigation support in Texas Railroad Commission Docket No. 9670 – Petition for De Novo Review of the Reduction of the Gas Utility Rates of ATMOS Energy Corp., Mid – Tex Division.

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Director, Environmental Practice

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**Franchise Fee Experience**

- Assisted in conducting reviews of the franchise fee payments made by Charter Communications to the Cities of Rockwall and Denton, Texas.
- Assisted in conducting reviews of the franchise fee payments made by Oncor to a coalition of Cities within the State of Texas.
- Assisted in conducting franchise fee reviews of gas and electric providers in Fayette County, Kentucky.

**Impact Fee / Capital Recovery Experience**

Mr. Ekrut has assisted in the development of Water, Wastewater, and/or Roadway Impact Fees for the following clients:

- |                                |  |
|--------------------------------|--|
| ▪ City of Denton, Texas        | ▪ City of McKinney, Texas                                    |
| ▪ City of Flower Mound, Texas  | ▪ City of Mesquite, Texas                                    |
| ▪ City of Frisco, Texas        | ▪ Nueces County Water Control and Improvement District No. 4 |
| ▪ City of Ft. Worth, Texas     | ▪ City of Willow Park, Texas                                 |
| ▪ City of Glenn Heights, Texas |  |

**Publications and Presentations**

- "Allocating the Costs of Population Growth in Wholesale Water Contracts," Texas Water Law Conference, January 2007
- "Business Planning and Its Benefits to Municipal Utilities," American Water Works Association, Texas Section, 2008
- "Plan Your Work and Work Your Plan: The Benefits of Municipal Utility Business Planning," Texas Town & City, October 2009.
- "Strategies for Pricing Direct Water Reuse," Texas Water Conservation Association, March 2013.
- "Utility Management and Revenue Considerations," New and Emerging City Manager Roundtable and New and Emerging Finance Director Roundtable, North Central Texas Council of Governments, 2014, 2015, 2016.
- "Texas Water Development Board Water Conservation Best Management Practices Model: Estimating Water Conservation Savings for New Annual Reporting Requirements," Texas Water Conservation Association, March 2014
- "When in Drought! Utility Ratemaking 101," Government Finance Officers Association of Texas, April 2014
- "Aledo, Texas – How a Small City Overcame a Capital Improvement Giant," American Water Works Association, Utility Management Conference, January 2015
- "To the PUC . . . and Beyond!", Government Finance Officers Association of Texas, Pre-Conference, November 2015
- "Getting a Good Opinion, The Importance of Financial Policies and the Impact on a Utility's Credit Rating", American Water Works Association, Texas Section, April 2016
- "Legislative and Regulatory Update for Water and Wastewater Utilities," Government Finance Officers Association of Texas, Panhandle Chapter, July 2016

**Corporate Record of Testimony Submitted by Chris Ekrut**

Utility	Proceeding	Subject of Testimony	Before	Client	Date
1. Double Diamond Utilities	SOAH Docket No. 582-09-4288	Water Cost of Service and Rate Design	Texas Commission on Environmental Quality	Double Diamond Utilities	2010
2. Double Diamond Utilities	SOAH Docket No. 582-09-6112	Wastewater Cost of Service and Rate Design	Texas Commission on Environmental Quality	Double Diamond Utilities	2010
3. City of Arlington	Cause No. 153-259190-12	Municipal Fee Determination	Tarrant County District Court, 153 <sup>rd</sup> Judicial District	City of Arlington, Texas	2013
4. Double Diamond Utilities	PUC Docket No. 42919	Water and Wastewater Cost of Service and Rate Design / Settlement Terms and Conditions	Public Utility Commission of Texas	Double Diamond Utilities	2014
5. Quadvest, LP	PUC Docket No. 44809	Review and Adjustments to Water Rate/Tariff Change	Public Utility Commission of Texas	Office of Public Utility Counsel	2016
6. Trophy Club Municipal Utility District No. 1	PUC Docket No. 45231	Water and Wastewater Cost of Service and Rate Design / Support of Rate Action on Appeal	Public Utility Commission of Texas	Trophy Club Municipal Utility District No. 1	2016
7. Monarch Utilities I, LP	PUC Docket No. 45570	Review and Adjustments to Water and Wastewater Rate/Tariff Change	Public Utility Commission of Texas	Office of Public Utility Counsel	2016
8. Double Diamond Properties Construction	PUC Docket No. 46247	Water Cost of Service and Rate Design	Public Utility Commission of Texas	Double Diamond Properties Construction	2016
9. Liberty Utilities	PUC Docket No. 46256	Review and Adjustments to Wastewater Rate/Tariff Change / Appeal of Rate Denial by City of Tyler	Public Utility Commission of Texas	City of Tyler, Texas	2017
10. Custom Water Company	PUC Docket No. 46670	Water Cost of Service and Rate Design	Public Utility Commission of Texas	Custom Water Company	2017

July 6, 2007

# Analysis of Alternative Water Rate Methodologies for North Texas Municipal Water District

As Prepared by

**R.W. Beck, Inc.**

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### Section 3. Findings and Conclusions

This report has been prepared for the use of the client for the specific purposes identified in the report. The conclusions, observations and recommendations contained herein attributed to R. W. Beck, Inc. (R. W. Beck) constitute the opinions of R. W. Beck. To the extent that statements, information and opinions provided by the client or others have been used in the preparation of this report, R. W. Beck has relied upon the same to be accurate, and for which no assurances are intended and no representations or warranties are made. R. W. Beck makes no certification and gives no assurances except as explicitly set forth in this report.

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## EXECUTIVE SUMMARY

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In January 2007, R.W. Beck, Inc. (R.W. Beck) was engaged by North Texas Municipal Water District (NTWMD) to review and analyze the District's existing water rate contractual provisions with its Member and Customer Cities. As part of this engagement, R.W. Beck's Project Manager, Mr. Jack Stowe conducted one-on-one interviews with representatives from 12 of the 13 Member Cities. R.W. Beck was also tasked with reviewing and quantifying the historical impact of ten (10) alternative rate methodologies and the impact of each respective method on the charges to the Member Cities. The results of this analysis were presented to the NTMWD Board of Director's Water Committee on June 28<sup>th</sup>, 2007 and, at their direction, the attached report was prepared detailing the analysis.

The methodologies that were considered are summarized below:

- Method #1 – Reduce the minimum annual demand by 10% every five (5) years
- Method #2 – If current minimum annual demand is not reached for three (3) consecutive years, then minimum annual demand is adjusted to reflect the highest demand during the previous three (3) year period
- Method #3 – 3-year rolling average used to determine minimum annual demand
- Method #4 – Prior year consumption used to determine minimum annual demand
- Method #5 – Eliminate the excess water rate
- Method #6 – Eliminate the excess water rate and use prior year consumption to determine minimum annual demand
- Method #7 – Transfer excess minimum annual demand between the cities
- Method #8 – Two-part rate structure based upon peak day usage
- Method #9 – Allocate costs based upon actual consumption
- Method #10 – Maintain current rate methodology and establish additional water conservation surcharge

The chart contained at the end of the Executive Summary illustrates the total net impact of each method to each of the Member Cities from 2003 to 2006. A positive number on this table indicates additional charges that would be incurred under the respective method. A negative number indicates reduced charges that would be incurred.

## EXECUTIVE SUMMARY

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In reviewing the results of this analysis, it is important to remember that under each alternative method, only the cost responsibility between the Cities is changing. The revenue received by NTMWD cannot be significantly reduced unless the services provided by NTMWD are reduced. R.W. Beck would also like to note that this analysis is historical in nature and does not necessarily indicate future results. Additionally, the results of this analysis must be considered in light of the assumptions utilized and presented in Section 2.2 of the attached report.

It is also important to note that any change to the current contractual provisions of NTMWD will require significant effort. Specifically, any contract change would require consent of all 13 Member Cities and NTMWD. In addition, the potential also exists that approval from 51% of the NTMWD bondholders may also be required.

**Table ES-1**  
**Summary of Rate Methods Total Impact**

	<u>Method #1</u>	<u>Method #2</u>	<u>Method #3</u>	<u>Method #4</u>	<u>Method #5</u>
Allen	\$ 564,102	\$ 582,336	\$ 575,153	\$ 1,254,432	\$ 948,492
Farmersville	(2,946)	(5,096)	(22,466)	(49,310)	(7,048)
Forney	120,771	128,420	3,417	237,505	439,179
Frisco	770,044	785,745	26,277	1,877,352	2,198,060
Frisco #2	6,792	6,305	10,720	10,077	292,337
Garland	(78,273)	483,475	1,470,365	801,976	(654,679)
McKinney	860,533	883,458	911,781	2,132,148	1,537,125
McKinney #3	15,930	23,052	39,276	36,877	(8,492)
Mesquite	1,165,430	373,531	1,253,300	(377,429)	(303,174)
Mesquite # 3	390,130	259,162	650,149	656,960	(105,164)
Plano	(3,002,389)	(3,100,982)	(2,507,099)	(4,936,816)	(1,350,417)
Princeton	(9,537)	10,187	2,696	7,131	41,441
Richardson	(734,479)	(85,066)	145,715	(1,317,460)	(553,182)
Rockwall	305,792	313,370	258,354	549,257	667,816
Royse City	41,803	43,625	34,848	90,182	121,436
Wylie	160,857	171,744	(66,889)	326,685	516,017
	<u>Method #6</u>	<u>Method #7</u>	<u>Method #8</u>	<u>Method #9</u>	<u>Method #10</u>
Allen	\$ 1,227,203	\$ 749,886	\$ 1,348,910	\$ 2,108,689	\$ 509,115
Farmersville	(50,821)	(22,182)	(41,430)	(39,782)	-
Forney	231,817	318,042	240,772	672,568	39,446
Frisco	1,841,617	1,815,711	1,946,056	3,753,070	637,638
Frisco #2	10,080	-	(18,947)	282,718	1,049
Garland	724,624	(478,693)	1,237,962	602,496	621,771
McKinney	2,090,942	1,308,188	2,284,190	3,312,041	713,314
McKinney #3	36,888	-	(173,769)	(68,685)	875
Mesquite	(407,125)	(636,890)	274,874	(1,170,797)	-
Mesquite # 3	644,465	-	(1,386,535)	420,670	-
Plano	(5,073,381)	(2,458,735)	(4,168,162)	(4,776,937)	2,379,897
Princeton	5,293	10,281	14,261	65,998	-
Richardson	(1,374,872)	(1,505,207)	(952,507)	(2,187,992)	1,460,793
Rockwall	534,744	400,582	578,140	1,284,005	243,502
Royse City	88,153	75,145	93,645	203,712	-
Wylie	318,747	423,874	334,954	833,538	-



# Section 1 Introduction

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## 1.1 Introduction

In January 2007, R.W. Beck, Inc. (R.W. Beck) was engaged by North Texas Municipal Water District (NTMWD) to review and analyze the District's existing water rate contractual provisions with its Member and Customer Cities. As part of this engagement, R.W. Beck's Project Manager, Mr. Jack Stowe conducted one-on-one interviews with representatives from 12 of the 13 Member Cities. R.W. Beck was also tasked with reviewing and quantifying the historical impact of ten (10) alternative rate methodologies and the impact of each respective method on the charges to the Member Cities. The results of this analysis were presented to the NTMWD Board of Director's Water Committee on June 28<sup>th</sup>, 2007

Per the direction of the NTMWD Board of Director's Water Committee, this report provides an analysis and discussion of each of the rate methodologies considered as well as the projected impact each method historically would have had on the Member Cities of NTMWD.



## Section 2 Rate Methodologies

### 2.1 Current Rate Methodology

Under the current contractual rate methodology, a Member City is charged the full rate for the volumes included in its minimum annual demand. The minimum annual demand is defined as the highest demand historically placed on the system by that City. For any volumes consumed over the minimum annual demand, the variable operations and maintenance (O&M) cost associated with supplying that additional water is charged. For any volumes included in the minimum annual demand that are not consumed, a City generally receives a refund equivalent to the variable O&M costs for those volumes.

The following table demonstrates the charges to each City under the current methodology for 2003 through 2006.

**Table 2-1**  
**Charges under Current Rate Methodology**

	<u><b>2003</b></u>	<u><b>2004</b></u>	<u><b>2005</b></u>	<u><b>2006</b></u>
Allen	\$ 3,473,207	\$ 3,841,994	\$ 4,296,442	\$ 4,754,388
Farmersville	239,791	258,529	256,866	264,757
Forney	655,932	746,272	898,124	1,109,782
Frisco	4,065,937	5,166,391	5,640,718	6,607,044
Frisco #2				108,146
Garland	11,733,053	12,357,732	13,005,295	13,264,459
McKinney	5,121,839	5,889,188	6,502,087	7,232,155
McKinney #3				394,874
Mesquite	5,162,728	5,312,538	5,628,744	5,794,360
Mesquite # 3	1,637,297	1,800,308	1,970,811	2,043,471
Plano	22,451,275	23,668,166	25,060,694	25,813,620
Princeton	277,814	294,578	320,586	343,622
Richardson	9,410,021	9,840,392	10,195,616	10,465,811
Rockwall	1,913,157	2,075,097	2,290,163	2,584,352
Royse City	243,163	271,832	320,142	358,578
Wylie	816,388	1,003,837	1,252,736	1,422,544
Total	\$ 67,201,602	\$ 72,526,856	\$ 77,639,024	\$ 82,561,966



## Section 2

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### 2.2 Assumptions for Alternative Rate Methods

In attempting to quantify the impacts of the various alternative rate methods that have been proposed, several assumptions have been made. These include:

- For customers currently under specialized contracts (i.e, individual delivery points for Frisco, McKinney, and Mesquite), the minimum annual demand of these customers has been held constant to reflect the contract minimum annual demand levels.
- In methods where the total minimum annual demand level is reduced, the historical rates have been increased to recover the same amount of revenue under the minimum annual demand charge as was historically recovered.
- Any excess revenue generated above the revenue requirement, that is the revenue generated under the current methodology in a given year, was carried over to the following year and used to reduce the budgeted water sales amount upon which rates are based.
- In all cases, each rate method was applied beginning in 2003. If excess revenue was generated, it was first carried over and used to reduce budgeted water sales in 2004.
- With the exceptions of Methods #7 and #10, all methods were applied to both the Member and the Customer Cities.

### 2.3 Alternative Rate Methods

#### 2.3.1 Method #1

##### *Reduce the minimum annual demand by 10% every five (5) years*

The first method considered by R.W. Beck would periodically reduce the minimum annual demand of a City. For purposes of this analysis, it was assumed that a 10% reduction would occur every five (5) years. In the years following the adjustment, the minimum annual demand of a City would be increased if their actual demand exceeded this adjusted amount. Under this method, the excess water rate is maintained, as is the refund of the variable cost component for a City whose actual demand is below the minimum annual demand level.

The following table demonstrates the charges to each City under Method #1 for 2003 through 2006.

**Table 2-2**  
**Charges Generated under Method #1**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Allen	\$ 3,529,617	\$ 3,971,211	\$ 4,477,738	\$ 4,951,569
Farmersville	242,389	245,598	260,434	268,576
Forney	666,804	771,369	936,020	1,156,688
Frisco	4,148,991	5,340,159	5,878,730	6,882,255
Frisco #2				114,939
Garland	11,901,142	12,210,913	12,947,593	13,222,617
McKinney	5,210,896	6,087,261	6,776,452	7,531,193
McKinney #3				410,805
Mesquite	5,679,824	5,491,261	5,866,296	6,026,419
Mesquite # 3	1,801,269	1,860,861	2,053,977	2,125,910
Plano	22,730,377	22,475,759	23,974,012	24,811,217
Princeton	281,402	280,016	307,727	357,918
Richardson	9,540,158	9,513,578	9,916,573	10,207,052
Rockwall	1,943,407	2,144,888	2,386,802	2,693,464
Royse City	247,062	280,973	333,651	373,830
Wylie	831,240	1,037,594	1,305,597	1,481,930
Total	\$ 68,754,579	\$ 71,711,441	\$ 77,421,603	\$ 82,616,382

Given the estimated charges above, the following illustrates the increase or decrease in charges to each Member City between Method #1 and the Current Rate Methodology. A positive number indicates additional charges incurred by a City while a negative number indicates a City whose charges would be reduced.

**Table 2-3**  
**Increase / (Decrease) in Charges between Method #1 and Current Rate Methodology**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total Impact</u>
Allen	\$ 56,410	\$ 129,216	\$ 181,297	\$ 197,180	\$ 564,102
Farmersville	2,598	(12,932)	3,569	3,819	(2,946)
Forney	10,872	25,097	37,896	46,906	120,771
Frisco	83,054	173,768	238,012	275,210	770,044
Frisco #2				6,792	6,792
Garland	168,090	(146,819)	(57,702)	(41,842)	(78,273)
McKinney	89,057	198,073	274,366	299,038	860,533
McKinney #3				15,930	15,930
Mesquite	517,096	178,723	237,552	232,059	1,165,430
Mesquite # 3	163,972	60,552	83,166	82,440	390,130
Plano	279,102	(1,192,407)	(1,086,681)	(1,002,403)	(3,002,389)
Princeton	3,588	(14,562)	(12,859)	14,296	(9,537)
Richardson	130,137	(326,815)	(279,043)	(258,759)	(734,479)
Rockwall	30,250	69,792	96,639	109,111	305,792
Royse City	3,899	9,142	13,509	15,252	41,803
Wylie	14,852	33,757	52,861	59,387	160,857

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As illustrated above, this method results in reduced charges for five (5) of the Member Cities, while eight (8) of the Member Cities would incur additional charges above what they pay under the current rate methodology. Detailed calculations for Method #1 can be found in Appendix A.

### 2.3.2 Method #2

*If the current minimum annual demand is not reached for three (3) consecutive years, then the minimum annual demand is adjusted to reflect the highest demand during the previous three (3) year period.*

The second method analyzed by R.W. Beck also seeks to apply a periodic reduction to the minimum annual demand. Under this method, it is assumed that if a City does not reach their current minimum annual demand level for three (3) consecutive years, then their minimum annual demand will be adjusted to reflect the City's highest demand over the previous three (3) years. In the years following the adjustment, the minimum annual demand level will be increased should the City's actual demand exceed this adjusted amount.

The following table demonstrates the charges to each City under Method #2 for 2003 through 2006.

**Table 2-4**  
**Charges Generated under Method #2**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Allen	\$ 3,474,479	\$ 3,845,055	\$ 4,596,912	\$ 5,031,922
Farmersville	239,879	258,736	254,934	261,298
Forney	656,172	746,866	960,930	1,174,562
Frisco	4,067,422	5,170,508	6,035,185	6,992,721
Frisco #2				114,452
Garland	11,737,354	12,367,591	13,292,212	13,446,857
McKinney	5,123,713	5,893,880	6,956,805	7,654,329
McKinney #3				417,926
Mesquite	5,164,621	5,316,784	6,022,451	5,768,045
Mesquite # 3	1,637,896	1,801,743	2,108,645	2,162,764
Plano	22,459,516	23,687,071	23,538,749	24,207,436
Princeton	277,916	294,813	310,377	363,681
Richardson	9,413,472	9,848,249	10,180,536	10,384,517
Rockwall	1,913,858	2,076,750	2,450,326	2,735,205
Royse City	243,252	272,048	342,531	379,508
Wylie	816,687	1,004,635	1,340,345	1,505,582
Total	\$ 67,226,237	\$ 72,584,729	\$ 78,390,939	\$ 82,600,806

Given the estimated charges above, the following illustrates the increase or decrease in charges to each Member City between Method #2 and the Current Rate Methodology. A positive number indicates additional charges incurred by a City while a negative number indicates a City whose charges would be reduced.

**Table 2-5**  
**Increase / (Decrease) in Charges between Method #2 and Current Rate Methodology**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total Impact</u>
Allen	\$ 1,272	\$ 3,060	\$ 300,470	\$ 277,533	\$ 582,336
Farmersville	88	206	(1,931)	(3,459)	(5,096)
Forney	240	594	62,806	64,780	128,420
Frisco	1,485	4,117	394,467	385,677	785,745
Frisco #2	0	0	0	6,305	6,305
Garland	4,301	9,859	286,917	182,398	483,475
McKinney	1,874	4,692	454,718	422,174	883,458
McKinney #3	0	0	0	23,052	23,052
Mesquite	1,893	4,245	393,707	(26,315)	373,531
Mesquite # 3	600	1,435	137,834	119,293	259,162
Plano	8,241	18,906	(1,521,945)	(1,606,184)	(3,100,982)
Princeton	102	235	(10,209)	20,059	10,187
Richardson	3,451	7,857	(15,080)	(81,294)	(85,066)
Rockwall	701	1,653	160,163	150,853	313,370
Royse City	89	216	22,390	20,930	43,625
Wylie	299	798	87,609	83,039	171,744

As illustrated above, this method results in reduced charges for three (3) of the Member Cities, while ten (10) of the Member Cities would incur additional charges above what they pay under the current rate methodology. Detailed calculations for Method #2 can be found in Appendix B.

### 2.3.3 Method #3

#### *3-year rolling average used to determine minimum annual demand*

The third method considered seeks to adjust the minimum annual demand of a City by using a rolling average. For this method, a 3-year rolling average of actual consumption is used to determine the minimum annual demand level for a City for a given year. Under this method, the excess water rate is maintained, as is the refund of the variable cost component for a City whose actual demand is below the minimum annual demand level.

The following table demonstrates the charges to each City under Method #3 for 2003 through 2006.

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**Table 2-6**  
**Charges Generated under Method #3**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Allen	\$ 3,537,078	\$ 3,927,315	\$ 4,490,816	\$ 4,985,976
Farmersville	238,755	241,993	252,074	264,656
Forney	667,746	747,520	897,059	1,101,202
Frisco	4,034,170	4,798,898	5,865,288	6,808,012
Frisco #2				118,867
Garland	12,150,499	12,518,667	13,399,166	13,762,572
McKinney	5,291,297	5,930,807	6,863,381	7,571,566
McKinney #3				434,151
Mesquite	5,570,886	6,099,932	5,882,661	5,598,191
Mesquite # 3	1,766,716	1,911,517	2,177,079	2,246,724
Plano	22,501,344	23,031,883	24,052,847	24,900,582
Princeton	281,523	289,435	316,934	351,404
Richardson	9,719,191	9,905,715	10,237,539	10,195,111
Rockwall	1,908,683	2,100,466	2,372,812	2,739,161
Royse City	250,599	278,837	321,857	377,269
Wylie	824,456	973,810	1,192,583	1,437,767
Total	\$ 68,742,944	\$ 72,756,796	\$ 78,322,093	\$ 82,893,211

Given the estimated charges above, the following illustrates the increase or decrease in charges to each Member City between Method #3 and the Current Rate Methodology. A positive number indicates additional charges incurred by a City while a negative number indicates a City whose charges would be reduced.

**Table 2-7**  
**Increase / (Decrease) in Charges between Method #3 and Current Rate Methodology**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total Impact</u>
Allen	\$ 63,871	\$ 85,320	\$ 194,374	\$ 231,587	\$ 575,153
Farmersville	(1,036)	(16,536)	(4,792)	(102)	(22,466)
Forney	11,814	1,248	(1,066)	(8,580)	3,417
Frisco	(31,767)	(367,493)	224,569	200,967	26,277
Frisco #2				10,720	10,720
Garland	417,446	160,935	393,871	498,113	1,470,365
McKinney	169,458	41,618	361,294	339,411	911,781
McKinney #3				39,276	39,276
Mesquite	408,158	787,394	253,917	(196,168)	1,253,300
Mesquite # 3	129,419	111,209	206,268	203,254	650,149
Plano	50,070	(636,283)	(1,007,847)	(913,038)	(2,507,099)
Princeton	3,709	(5,143)	(3,652)	7,782	2,696
Richardson	309,170	65,323	41,923	(270,700)	145,715
Rockwall	(4,474)	25,369	82,649	154,809	258,354
Royse City	7,436	7,006	1,715	18,691	34,848
Wylie	8,068	(30,027)	(60,153)	15,223	(66,889)

As illustrated above, this method results in reduced charges for three (3) of the Member Cities, while ten (10) of the Member Cities would incur additional charges above what they pay under the current rate methodology. Detailed calculations for Method #3 can be found in Appendix C.

### 2.3.4 Method #4

#### *Prior year consumption used to determine minimum annual demand*

Similar to the previous method, Method #4 utilizes the actual demand of a customer from the previous year as their new minimum annual demand. Under this method, the excess water rate is maintained, as is the refund of the variable cost component for a City whose actual demand is below the minimum annual demand level.

The following table demonstrates the charges to each City under Method #4 for 2003 through 2006.

**Table 2-8  
Charges Generated under Method #4**

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Allen	\$ 3,698,710	\$ 4,043,104	\$ 4,680,307	\$ 5,198,343
Farmersville	221,679	222,667	259,559	266,728
Forney	670,516	785,333	978,364	1,213,403
Frisco	4,551,944	5,436,838	6,144,676	7,223,984
Frisco #2				118,223
Garland	11,929,483	12,431,988	13,288,733	13,512,310
McKinney	5,689,454	6,197,464	7,083,012	7,907,486
McKinney #3				431,751
Mesquite	5,780,189	5,237,973	5,102,672	5,400,107
Mesquite # 3	1,833,091	1,894,551	2,146,898	2,234,308
Plano	21,940,226	21,895,504	23,466,243	24,754,965
Princeton	273,250	278,765	316,008	375,709
Richardson	9,600,946	9,685,822	9,859,418	9,448,194
Rockwall	1,907,873	2,183,719	2,494,779	2,825,655
Royse City	257,033	286,060	348,745	392,057
Wylie	845,779	1,056,376	1,364,661	1,555,374
Total	\$ 69,200,172	\$ 71,636,164	\$ 77,534,076	\$ 82,858,598

Given the estimated charges above, the following illustrates the increase or decrease in charges to each Member City between Method #4 and the Current Rate Methodology. A positive number indicates additional charges incurred by a City while a negative number indicates a City whose charges would be reduced.

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**Table 2-9**  
**Increase / (Decrease) in Charges between Method #4 and Current Rate Methodology**

	<b><u>2003</u></b>	<b><u>2004</u></b>	<b><u>2005</u></b>	<b><u>2006</u></b>	<b><u>Total Impact</u></b>
Allen	\$ 225,502	\$ 201,109	\$ 383,865	\$ 443,954	\$ 1,254,432
Farmersville	(18,112)	(35,862)	2,693	1,970	(49,310)
Forney	14,584	39,061	80,240	103,621	237,505
Frisco	486,007	270,448	503,957	616,940	1,877,352
Frisco #2				10,077	10,077
Garland	196,430	74,256	283,439	247,851	801,976
McKinney	567,615	308,276	580,926	675,331	2,132,148
McKinney #3				36,877	36,877
Mesquite	617,461	(74,566)	(526,072)	(394,252)	(377,429)
Mesquite # 3	195,794	94,242	176,087	190,837	656,960
Plano	(511,049)	(1,772,662)	(1,594,450)	(1,058,655)	(4,936,816)
Princeton	(4,565)	(15,813)	(4,578)	32,086	7,131
Richardson	190,924	(154,570)	(336,198)	(1,017,616)	(1,317,460)
Rockwall	(5,284)	108,622	204,616	241,303	549,257
Royse City	13,871	14,228	28,604	33,480	90,182
Wylie	29,391	52,539	111,925	132,830	326,685

As illustrated above, this method results in reduced charges for three (3) of the Member Cities, while ten (10) of the Member Cities would incur additional charges above what they pay under the current rate methodology. Detailed calculations for Method #4 can be found in Appendix D.

### 2.3.5 Method #5

#### *Eliminate the excess water rate*

The fifth method reviewed by R.W. Beck consisted of implementing full rate costing and eliminating the excess water charge. Under this method, all consumption is charged at the full rate, and the excess revenue generated is used to offset the budgeted water sales, which is used to develop rates, in the subsequent rate year. Under this method, the refund of the variable cost component for a City whose actual demand is below the defined minimum annual demand level is maintained. It is also important to note that under this method, growing cities will lose the benefit of the excess water charge which the mature cities have experienced in the past.

The following table demonstrates the charges to each City under Method #5 for 2003 through 2006.

**Table 2-10**  
**Charges Generated under Method #5**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Allen	\$ 3,588,225	\$ 3,927,023	\$ 4,495,242	\$ 5,304,034
Farmersville	239,791	252,979	253,923	266,202
Forney	686,361	802,344	1,015,780	1,344,804
Frisco	4,878,321	5,082,633	6,201,412	7,515,784
Frisco #2				400,483
Garland	11,733,053	12,092,429	12,856,337	13,024,041
McKinney	5,525,280	5,926,092	6,872,366	7,958,656
McKinney #3				386,382
Mesquite	5,162,728	5,198,466	5,564,266	5,669,736
Mesquite # 3	1,637,297	1,761,662	1,948,241	1,999,523
Plano	22,451,275	23,159,980	24,773,632	25,258,450
Princeton	277,814	288,253	323,184	388,790
Richardson	9,410,021	9,629,117	10,078,819	10,240,701
Rockwall	1,943,777	2,099,624	2,369,988	3,117,196
Royse City	249,230	295,159	324,524	446,238
Wylie	906,871	1,140,271	1,330,187	1,634,192
Total	\$ 68,690,046	\$ 71,656,032	\$ 78,407,902	\$ 84,955,213

Given the estimated charges above, the following illustrates the increase or decrease in charges to each Member City between Method #5 and the Current Rate Methodology. A positive number indicates additional charges incurred by a City while a negative number indicates a City whose charges would be reduced.

**Table 2-11**  
**Increase / (Decrease) in Charges between Method #5 and Current Rate Methodology**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total Impact</u>
Allen	\$ 115,018	\$ 85,028	\$ 198,800	\$ 549,645	\$ 948,492
Farmersville	0	(5,551)	(2,942)	1,445	(7,048)
Forney	30,429	56,072	117,656	235,022	439,179
Frisco	812,384	(83,757)	560,694	908,739	2,198,060
Frisco #2				292,337	292,337
Garland	0	(265,303)	(148,958)	(240,419)	(654,679)
McKinney	403,441	36,904	370,279	726,502	1,537,125
McKinney #3				(8,492)	(8,492)
Mesquite	0	(114,072)	(64,478)	(124,624)	(303,174)
Mesquite # 3	0	(38,646)	(22,570)	(43,948)	(105,164)
Plano	0	(508,186)	(287,061)	(555,170)	(1,350,417)
Princeton	0	(6,325)	2,598	45,168	41,441
Richardson	0	(211,276)	(116,797)	(225,110)	(553,182)
Rockwall	30,620	24,528	79,825	532,844	667,816
Royse City	6,067	23,327	4,382	87,660	121,436
Wylie	90,484	136,434	77,451	211,648	516,017



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As illustrated above, this method results in reduced charges for five (5) of the Member Cities, while eight (8) of the Member Cities would incur additional charges above what they pay under the current rate methodology. Detailed calculations for Method #5 can be found in Appendix E.

**2.3.6 Method #6*****Eliminate the excess water rate and use prior year consumption to determine minimum annual demand***

Method #6 combines features of the two previous methods. Specifically, under this method the minimum annual demand is determined using the prior year actual demand. Additionally, the excess water rate is eliminated and the full rate is charged for all consumption. However, to maintain the performance of the excess water rate, a two-step refund program has been applied. First, the variable operations and maintenance costs associated with volumes included in a City's minimum annual demand that are not consumed are refunded. Second, the fixed costs associated with any volumes consumed in excess of a customer's minimum annual demand are also refunded.

The following table demonstrates the charges to each City under Method #6 for 2003 through 2006.

**Table 2-12**  
**Charges Generated under Method #6**

	<u><b>2003</b></u>	<u><b>2004</b></u>	<u><b>2005</b></u>	<u><b>2006</b></u>
Allen	\$ 3,698,710	\$ 4,043,104	\$ 4,652,942	\$ 5,198,480
Farmersville	221,679	222,667	258,041	266,735
Forney	670,516	785,333	972,644	1,213,435
Frisco	4,551,944	5,436,838	6,108,751	7,224,174
Frisco #2				118,226
Garland	11,929,483	12,431,988	13,211,027	13,512,665
McKinney	5,689,454	6,197,464	7,041,599	7,907,694
McKinney #3				431,763
Mesquite	5,780,189	5,237,973	5,072,835	5,400,249
Mesquite # 3	1,833,091	1,894,551	2,134,344	2,234,366
Plano	21,940,226	21,895,504	23,329,027	24,755,616
Princeton	273,250	278,765	314,161	375,719
Richardson	9,600,946	9,685,822	9,801,758	9,448,443
Rockwall	1,907,873	2,183,719	2,480,192	2,825,729
Royse City	257,033	286,060	346,706	392,068
Wylie	845,779	1,056,376	1,356,682	1,555,415
<b>Total</b>	<b>\$ 69,200,172</b>	<b>\$ 71,636,164</b>	<b>\$ 77,080,708</b>	<b>\$ 82,860,777</b>

Given the estimated charges above, the following illustrates the increase or decrease in charges to each Member City between Method #6 and the Current Rate Methodology. A positive number indicates additional charges incurred by a City while a negative number indicates a City whose charges would be reduced.

**Rate Methodologies**

**Table 2-13**  
**Increase / (Decrease) in Charges between Method #6 and Current Rate Methodology**

	<u><b>2003</b></u>	<u><b>2004</b></u>	<u><b>2005</b></u>	<u><b>2006</b></u>	<u><b>Total Impact</b></u>
Allen	\$ 225,502	\$ 201,109	\$ 356,500	\$ 444,091	\$ 1,227,203
Farmersville	(18,112)	(35,862)	1,176	1,977	(50,821)
Forney	14,584	39,061	74,520	103,653	231,817
Frisco	486,007	270,448	468,032	617,130	1,841,617
Frisco #2				10,080	10,080
Garland	196,430	74,256	205,732	248,206	724,624
McKinney	567,615	308,276	539,512	675,539	2,090,942
McKinney #3				36,888	36,888
Mesquite	617,461	(74,566)	(555,910)	(394,110)	(407,125)
Mesquite # 3	195,794	94,242	163,533	190,896	644,465
Plano	(511,049)	(1,772,662)	(1,731,667)	(1,058,004)	(5,073,381)
Princeton	(4,565)	(15,813)	(6,425)	32,096	5,293
Richardson	190,924	(154,570)	(393,858)	(1,017,368)	(1,374,872)
Rockwall	(5,284)	108,622	190,029	241,377	534,744
Royse City	13,871	14,228	26,564	33,490	88,153
Wylie	29,391	52,539	103,946	132,871	318,747

As illustrated above, this method results in reduced charges for five (5) of the Member Cities, while eight (8) of the Member Cities would incur additional charges above what they pay under the current rate methodology. Detailed calculations for Method #6 can be found in Appendix F.

### 2.3.7 Method #7

#### *Transfer excess minimum annual demand between the Member Cities*

The seventh method analyzed by R.W. Beck involves transferring volumes included in the minimum annual demand between Member Cities. For example, Member City A experiences actual demand which is 10,000 gallons less their minimum annual demand, while Member City B experiences actual demand which is 10,000 gallons greater than their minimum annual demand. Under this scenario, 10,000 gallons would be deducted from Member City A's minimum annual demand, while 10,000 gallons would be added to Member City B's minimum annual demand.

Volumes are redistributed between Cities based upon the percentage to which their actual demand was above or below their applicable minimum annual demand. In addition, as part of this method, the excess water rate was maintained, as was the refund of the variable cost component for a City whose actual demand is below the minimum annual demand level. However, it should be noted that a City loses the benefit of the excess water rate to the extent that their minimum annual demand is increased.

The following table demonstrates the charges to each City under Method #7 for 2003 through 2006.

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**Table 2-14**  
**Charges Generated under Method #7**

	<u><b>2003</b></u>	<u><b>2004</b></u>	<u><b>2005</b></u>	<u><b>2006</b></u>
Allen	\$ 3,588,225	\$ 4,013,172	\$ 4,547,319	\$ 4,967,201
Farmersville	224,106	254,850	251,717	267,088
Forney	686,361	819,945	1,027,548	1,194,298
Frisco	4,878,321	5,194,133	6,273,256	6,950,092
Frisco #2				108,146
Garland	11,551,209	12,270,438	12,781,097	13,279,101
McKinney	5,525,280	6,056,095	6,951,982	7,520,099
McKinney #3				394,874
Mesquite	5,050,731	5,210,298	5,417,103	5,583,348
Mesquite # 3	1,637,297	1,800,308	1,970,811	2,043,471
Plano	21,494,940	23,287,263	24,275,719	25,477,099
Princeton	267,896	291,277	326,928	360,780
Richardson	9,197,356	9,716,472	9,744,218	9,748,587
Rockwall	1,943,777	2,145,685	2,397,444	2,776,445
Royse City	249,230	301,634	328,284	389,712
Wylie	906,871	1,165,286	1,345,598	1,501,624
Total	\$ 67,201,602	\$ 72,526,856	\$ 77,639,024	\$ 82,561,966

As previously mentioned, while this method provides a relief mechanism for those who do not utilize their full minimum annual demand level, this method would also reduce the benefit of the excess water charge in as much as a City's minimum annual demand is increased. Given the estimated charges above, the following illustrates the increase or decrease in charges to each Member City between Method #7 and the Current Rate Methodology. A positive number indicates additional charges incurred by a City while a negative number indicates a City whose charges would be reduced.

**Table 2-15**  
**Increase / (Decrease) in Charges between Method #7 and Current Rate Methodology**

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>Total Impact</u>
Allen	\$ 115,018	\$ 171,177	\$ 250,878	\$ 212,813	\$ 749,886
Farmersville	(15,685)	(3,680)	(5,148)	2,330	(22,182)
Forney	30,429	73,673	129,424	84,515	318,042
Frisco	812,384	27,742	632,537	343,047	1,815,711
Frisco #2				0	0
Garland	(181,844)	(87,294)	(224,198)	14,642	(478,693)
McKinney	403,441	166,907	449,896	287,944	1,308,188
McKinney #3				0	0
Mesquite	(111,997)	(102,240)	(211,641)	(211,012)	(636,890)
Mesquite # 3				0	0
Plano	(956,335)	(380,903)	(784,975)	(336,522)	(2,458,735)
Princeton	(9,918)	(3,301)	6,342	17,158	10,281
Richardson	(212,665)	(123,921)	(451,398)	(717,224)	(1,505,207)
Rockwall	30,620	70,588	107,281	192,093	400,582
Royse City	6,067	29,802	8,142	31,134	75,145
Wylie	90,484	161,448	92,861	79,081	423,874

As illustrated above, this method results in reduced charges for five (5) of the Member Cities, while eight (8) of the Member Cities would incur additional charges above what they pay under the current rate methodology. Detailed calculations for Method #7 can be found in Appendix G.

## 2.3.8 Method #8

### *Two-part rate structure based upon peak day usage*

Method #8 is a rate method that is common among other wholesale water suppliers in the Dallas – Ft. Worth area. This involves establishing a two-part rate with a demand component and a volumetric component. The demand component is based upon an individual City's peak day demand. This portion of the rate recovers the fixed operations and maintenance cost of NTMWD along with the annual debt service payment and is paid over 12 equal monthly installments. The volumetric component seeks to recover the variable operations and maintenance costs of NTMWD and is applied per 1,000 gallons of actual consumptions. In applying this method, the applicable rate has been calculated based upon prior year's actual demand along with the rate year budgeted costs. For example, for 2003, the rate is based upon 2002 demand and 2003 budgeted cost levels. Additionally, as information concerning each City's individual peak day demand was not available, the system peak day has been used in calculating this example.

It is important to note that while this method eliminates the excess water charge and directly ties the charges incurred by a City to that City's use of the system, this method will result in additional costs to NTMWD. Specifically, in order to implement this rate method, NTMWD would most likely need to install rate of flow controllers at system delivery points. Additionally, for a City to reduce their peak demand level,