

1. THE NEW PROPOSED CONTRACTS PERPETUATE THE EXISTING METHODOLOGY FOR ESTABLISHING PAYMENT FOR THE WATER BY THE CITIES WHICH ARE REFERRED TO AS "MINIMUM TAKE OR PAY" PROVISIONS. IS THIS A FAIR AND REASONABLE APPROACH?

"Take or pay" contracts mean many different things but primarily are an indication that an entity must pay a certain sum of dollars which would entitle it to use any portion of a number of units up to a maximum amount (the minimum). Restrictions are then applied on whether the entity could receive any additional units over the minimum or if they pay for these units on some basis. In fact, the original NTMWD contracts for the first six years were true take or pay contracts. A definite minimum was established for each of the first six years with an increase built into the minimum and a fixed rate, thereby guaranteeing sums of money to be available during each of the first six years. At the end of the six year period, the Board of Directors was mandated to analyze the finances and to determine a rate to be charged for water that would provide fully for maintenance and operating expense, for the maintenance of all restricted funds, performance of all covenants authorizing the bonds and the indenture securing the bonds. It was required that this action be taken before February 10 of each calendar year, and the rate would remain effective for that calendar year. To assure that adequate funds would be available the Board established minimums for each of the cities and a new rate. This process has continued to the current time.

The actual development of the NTMWD system of charges was based on the concept of each Member City being responsible for a portion of the cost of the NTMWD. The combination of these portions was the whole, less any outside or additional revenues. The policy was developed that the minimums would escalate based on the highest year use of the city. This method of establishing the minimum required each city to pay for the facilities necessary to meet their highest demand. Therefore, the growing city would pick up additional cost in proportion to its growth and requirements for new facilities built and constructed to meet those needs without placing a large burden on any city.

This method also encouraged cities not to waste water. If pipelines leaked, system repairs were delayed, or general waste occurred in the city's system, this would result in higher minimums which the city must pay in the future. Therefore, if the city could reduce this waste, future growth would replace it and their minimums would not increase as greatly. Even under today's new current conservation policies a city that can look beyond one year would determine that the encouragement of good landscaping water conserving practices and conservation of use by individual households would result in lower peak requirements on the system and

lower minimums in the future. The end result would be lower cost to the city and therefore to the citizens for water service, as well as, a reduction in the volume of water necessary, and a reduction in the need for water resource development benefiting not only the cities but the NTMWD.

The rate was then established by taking the total number of gallons in the minimums and dividing that into the budget less outside revenues and less necessary working capital. By having a guaranteed sale (minimum) the NTMWD could establish the lowest rate without a concern of the rate not generating sufficient revenues to meet the requirements of the system. This type of policy has resulted in the lowest water rate for the Member Cities in the Dallas - Ft. Worth Metropolitan area and excluding underground water systems, probably in the State of Texas.

A true "take or pay" program would establish a maximum amount or volume of water that a city could purchase, then establish a number of years necessary to reach that point with a guaranteed minimum purchase established for each year. A method would then be developed for appropriate debt service on a uniform basis necessary to meet the payment schedules during this time frame and a formula to calculate O & M expense. This would provide a definite take or pay program but would not provide for an easy expansion of the system to meet the needs of the multiple cities involved.

Another method would be to use a rate established just to pay for the actual water used by the cities, but this would of necessity have to be a rate based on a wet year (lowest water sale projection) with sufficient funds generated to cover all costs. Therefore, the rate would be higher than under the current method and would not provide the assurance of adequate funding unless a coverage factor was added similar to most city revenue bond programs. Various combinations of rate possibilities exist but we have never found one that provides as good a guarantee to the bondholders and encourages the lowest possible rate, as the current method of the NTMWD.

2. DOES THE NEW PROPOSED CONTRACT ALLOW THE NTMWD TO DEVELOP RAW WATER RESOURCES BEYOND LAVON RESERVOIR?

The old contracts describe "the system" as storage space at Lavon, intake facilities, pipelines, purification plant, pumps, storage and related facilities. A great deal of discussion has been given by legal counsel to determine if this description restricted the NTMWD to storage in Lake Lavon or if it could be extended to reservoir construction or acquisition of storage space in a reservoir other

than Lavon. The NTMWD in an effort to meet the needs of the cities has acquired space in Texoma and in Cooper. However, neither of these has required the NTMWD to issue bonds to purchase space for storage as it was purchased in federal reservoirs. The New Bonham Reservoir would be an actual construction project and it is conceivable that it will be necessary for the NTMWD to construct additional reservoirs in the future. Therefore, the new contract clarifies this point and would allow the NTMWD to clearly build and acquire additional reservoir storage space with the use of parity contract revenue bonds.

3. SHOULD THE MEMBER CITIES BE REQUIRED TO PURCHASE WATER EXCLUSIVELY FROM THE NTMWD?

The policies of the NTMWD have traditionally been on the basis that the NTMWD would live up to its responsibilities in the contract by developing regional facilities to meet the needs of the Member Cities. If the Member Cities are not required to purchase their future needs from the NTMWD, it could be possible for one of the major entities to decide to purchase water from someone else or to build facilities themselves. If the NTMWD had made large investments in reservoir, treatment capacity, and distribution system to meet the needs of that community, then the other Member Cities would have to pick up that city's cost. Therefore, it would appear to be in the best interest of all the cities for each city to pledge to purchase all of its water needs from the NTMWD unless the NTMWD cannot meet the requirements. A provision is made in the contract to allow the city, if in their judgement the NTMWD cannot meet their needs, to notify the Board that they desire to purchase water from another source. The Board must respond by providing assurances of the ability to meet the needs of the city or allowing the city to purchase the water from the other source. Without this provision, the bond rating agencies would have concern on the ability for the NTMWD to meet its financial commitments if one, two or more of the major cities purchased water from other sources.

4. THE NEW CONTRACT PROHIBITS CITIES FROM SELLING WATER ON A WHOLESALE BASIS FOR RESALE TO OTHERS OUTSIDE ITS CITY LIMITS WITHOUT THE APPROVAL OF THE NTMWD; IS THIS FAIR?

This is considered a new provision within the proposed contract. However, a literal reading of the old contract says that "the district agrees, during the period of this contract to tender and make available to the city, for its own use.....". Therefore, it could be interpreted that the NTMWD could prohibit the sale to others for resale under the old contract but this provision was never

enforced. Many of the Member Cities have sold water to water supply corporations and other cities outside their city limits without any notice to the NTMWD. This practice has resulted in problems for many of the cities but the main reason to have this provision is to protect the other Member Cities from one city making large sales outside its city limits at an extreme profit that would generate large additional cost to all the other Member Cities in developing raw water, treatment, and distribution system improvements. All of the current NTMWD Customer City contracts have a No Wholesale Resale provision. This would also allow the NTMWD to be fully aware of any authorized outside sales for planning purposes in projecting the needs in that particular area. However, all present or current agreements between the cities and other agencies are grandfathered and approved in the new proposed contract.

5. WHAT IS THE TERM OF THE NEW PROPOSED CONTRACT?

The proposed contract would continue in force and effect until all bonds and all interest thereon shall have been paid or provided for, and thereafter shall be in force and effect during the entire useful life of the system. If the NTMWD is to issue contract revenue bonds in the open market the bondholders must be assured that the contracts for service with the cities will be in effect until the bonds are paid. Not only would the bondholders not buy the bonds without this type of guarantee, the Attorney General of the State of Texas would not approve the bonds unless the contracts were sufficient to cover the term of the bonds. The provision after all the bonds are to be paid which extends the contract for the useful life of the system is a protection to the cities. If a set number of years were utilized then the NTMWD could have a water system available to others under different terms and conditions at that time. Therefore, it would appear to be in the best interest of the cities for the contract terms to provide that the cities would receive the benefits as long as the system was useful. Other means could be utilized; however, as long as the Member Cities appoint the Directors to the Board, it would appear that this would be the simplest method, because the Directors could at any time after all the bonds were paid, make determinations as to the useful life of the system in accordance with the desires of the cities.

6. WHY IS THE ANNUAL PAYMENT PERIOD ESTABLISHED AS ANY 12 MONTH PERIOD FIXED BY THE NTMWD?

The annual payment period is effectively the fiscal year

of the NTMWD. In the original contracts the fiscal year was established on a calendar year basis, as were many of the cities during that time frame. In recent years all of the cities have established October 1 to September 30 as their fiscal year. The fiscal year was spelled out in the original contract on a calendar year basis and could not be changed as long as the existing bond indenture was in effect. In 1977, the NTMWD was able to refund and get rid of the old bond indenture and by resolution the NTMWD Board was allowed to establish a 12-month fiscal year period to match the cities. Then, each of the Member Cities had to pass a resolution agreeing to the NTMWD changing its fiscal year because the calendar year was spelled out in the contract agreements. This was very time consuming and if any one of the cities decided that this should not be done, then the NTMWD could not have changed its fiscal year. Therefore, this method is allowing the NTMWD Board of Directors to establish the fiscal year on the basis that what the majority of the Member Cities determine would be best. Again, this would appear to be an improvement over a system requiring 100% approval of each Member City.

7. IF A MEMBER CITY UNDER THE PROVISION OF THE CONTRACT MUST BUY WATER FROM ANOTHER SOURCE RATHER THAN THE NTMWD TO MEET ITS NEEDS, SHOULD THE NTMWD BE REQUIRED TO REIMBURSE THE CITY FOR THIS ALTERNATIVE WATER SUPPLY?

It would be the full intent of the NTMWD to provide and meet the water needs of all the cities. If water were available to be purchased by the city, then the NTMWD would normally purchase the water and supply it to the city. (In fact, this happened in 1970 when the NTMWD purchased emergency water from the City of Dallas which was placed directly into the City of Garland water system. The NTMWD paid Dallas a higher price for water than the City of Garland paid the District. This action was taken due to a fear concerning the limited treatment capacity available at the time. Many of the cities were not even aware this occurred). If an actual emergency existed, the cost would not be the paramount issue but the ability to achieve the purpose. An additional sentence could be added that, "with the permission of the NTMWD any city that purchased additional water would be reimbursed the cost and the city charged the same cost as other Member Cities for the water". However, this has been the NTMWD policy in the past.

8. SHOULD THE NTMWD BE ALLOWED TO SELL WATER TO PARTIES WHICH ARE NOT FULL CONTRACTING PARTIES OF THE SYSTEM?

The NTMWD Board of Directors, as a group, has a responsibility to the service area established under the Act that

created the District. When the NTMWD is acquiring water rights from the Texas Water Commission it is assumed that the NTMWD will try to serve its service area. If the NTMWD did not meet the needs of its service area, it could be anticipated that the Texas Water Commission would either require the NTMWD to provide the service, or take away some of the available water and make that available to the entity needing the water. It must be understood that the State of Texas has, by legislation, acquired the ownership of all surface water in the State. The State, through its regulatory agency, the Texas Water Commission, allows other agencies to utilize the State's water for the benefit of the citizens. If the water is not properly used in accordance with the law these rights can be revoked. Therefore, it seems appropriate that the Board of Directors can use their judgement in providing service to others. Any such sales are restricted and inferior to the rights of the initial contracting parties and additional contracting parties. If these sales were contingent on approval of all of the contracting parties, it would be very expensive, not only on the part of the NTMWD, but on the part of the cities to have a procedure of review, analysis, and decision making. Again, the Board of Directors is composed of the appointments by the Member Cities; therefore, the decision on customers or other policy matters of the NTMWD rests solely in the hands of the Board of Directors who are responsible to the cities.

9. SHOULDN'T THE NTMWD CALIBRATE ITS METERS ON A MORE REGULAR BASIS THAN A REQUEST FROM A CONTRACTING PARTY?

On the pressure differential meters (which includes all of the meters at the major cities) NTMWD instrumentation personnel perform calibrations on the instruments monthly and records are maintained in meter log books on the condition of the meter, any changes made in adjustments, and if any additional work is necessary. The meter log books are available for review by any of the Member Cities at any time on request. Mechanical meters are periodically evaluated and changed out. The verbiage in the contract is only if a city has a particular reason to feel that there is a need for certification at a particular time with the presence of the city.

10. THE CONTRACT SAYS THAT THE MONTHLY PAYMENTS WILL BE DUE ON OR BEFORE THE 10TH DAY OF EACH MONTH; WOULDN'T IT BE BETTER TO SAY WITHIN 10 WORKING DAYS FOLLOWING THE RECEIPT OF AN INVOICE?

The old contract provides that payments will be made by

the 10th day of each month. The monthly requirement is determined by dividing the annual requirement into 12 equal installments, so that the bill is the same each month. It seems reasonable to request the payment be due by the 10th of each month which provides a stable cash flow for the NTMWD. Currently NTMWD policy sends an invoice on the 25th day of the month for the amount that would due on the 10th of the following month. Therefore, in the current situation the cities are receiving the approximate 14 days under discussion. However, if this is a major point and the cities would like the wording to be changed the NTMWD has no objection.

11. DOES THE PROVISION FOR EXCESS WATER CHARGES MEAN THAT THE POLICY WILL CHANGE AND THE NTMWD WILL REQUIRE A PREMIUM OR SURCHARGE PAYMENT OVER AND ABOVE THE NORMAL RATE FOR EXCESS WATER?

In the original contracts the excess water charge was established at 7¢ per 1000 gallons which was determined to be the cost of power and chemicals in treating 1000 gallons of water in 1956. From time to time the NTMWD has evaluated the out-of-pocket costs for O & M attributable to producing water and the amount has currently been raised to 12¢ per 1000 gallons. The excess water charges as written in the new contract were planned to be the same as the methodology in the old contract and the policy of the NTMWD. However, confusion has developed due to the use of the words "surcharge or premium" therefore these words will be removed from the contract paragraph. The rewritten paragraph will clearly state that the excess water charge for use over and above the minimums would be established as the variable cost of the operation or maintenance expenses attributable to supplying the treated water.

12. THE NTMWD RECEIVES OTHER REVENUES FROM CUSTOMER SALES AND OTHER SOURCES DURING THE YEAR THAT ARE USED TO OFFSET THE COST OF MEMBER CITIES. AT THE END OF EACH FISCAL YEAR SHOULDN'T THE DISTRICT REFUND BY CHECK, NO LATER THAN THE LAST DAY OF THE LAST MONTH OF THE FIRST QUARTER OF THE NEW FISCAL YEAR, TO EACH CITY ANY EXCESS AMOUNT OF MONEY?

These revenues are estimated each year at the time of the budget based on the minimums to the Customer Cities and anticipated interest earnings. Deductions are made from the total expenditures prior to dividing the amount by the minimum gallons. If these revenues exceed those budgeted they are used as credits in the following year. In fact, these are some of the funds that are used as working capital

by the NTMWD in the Water System rather than collecting two months at the beginning of each fiscal year as is the practice in the Wastewater and Solid Waste System. If actual cash refunds are made at the end of each fiscal year then either a definitive amount of dollars would have to be established as working capital for the system or the cities would be required each year to make payments sufficient to provide additional cash for the operations of the NTMWD. It is the opinion of the NTMWD that the current practice meets the contract provisions stated in the new contract and provides the best use of funds.

13. WHY CAN'T THE NTMWD PROVIDE WRITTEN ESTIMATES OF THE COST TO THE CITIES ON MAY 1 WITH CHANGES IN WRITING THROUGHOUT THE BUDGETARY PROCESS?

The NTMWD fiscal year was changed to align with the cities at the request of the cities. The primary reason was to try to get rate increases and changes in cost to become effective at the same time that the city commenced a new fiscal year. The budgetary process of the NTMWD is similar to that of the cities and it is very difficult to have a firm budget figure by May 1, unless you start your budgetary process in January, which would result in only three months actual expenditure data for comparison. However, the NTMWD has attempted to provide the cities the best guess on request in May and then provide a better estimate in June, with a firm figure that would be going to the Board of Directors in early July. The accuracy in the water system has been very good over the past few years because the rate has been based on a five year financial plan. The only changing ingredient would be the sale of water by the cities establishing the minimum. The water year was established to provide a firm minimum as soon as possible by making the water year from August 1 through July. The NTMWD has traditionally furnished the rate to the cities and the cities have made the estimate of their water usage up through July. The water year does allow the cities to have a break by dividing hot summers into different water years. Using this method to establish the minimum appears to reduce the overall minimum by reducing the effect of a very hot, dry July and August from being added together. Again, the water year was established in an attempt to benefit the cities and consideration would be given in changing the dates. However, this does involve financing from one fiscal year to the next and reduces the accuracy of the overall reporting system.

14. IN THE NEW CONTRACT UNDER DELINQUENCIES IT IS STATED THAT SHOULD ONE PARTY FAIL TO PAY THEIR OBLIGATION THE OTHER PARTIES WOULD BE REQUIRED TO MAKE UP THIS DEFICIT; IS THIS FAIR?

Again, we must remember that the NTMWD is a creature of

the cities and all the cities must provide a guarantee to future bondholders that all O & M and Debt Service will be paid. If the cities are not willing to agree to make up a default by one city should this occur, then a reserve for potential defaults would need to be established equivalent to some monetary value and held in reserve so that the bondholders would be assured that adequate funds would be available in the case of a default or a coverage factor must be built into the rate. In the manner that this is currently being handled, the cities can have the lowest rate but they are accepting future responsibilities should a default occur. The odds of this happening are very small, therefore, it would appear to be in the best interest of the cities to maintain the current practice in the new contract.

15. THE CITIES ARE AGREEING THAT THE PAYMENTS TO THE NTMWD HAVE PRIORITY OVER ANY OF THEIR OWN BONDS; IS THIS A PROBLEM?

It is our understanding that State Law requires contract revenue bonds to be O & M Expense of the party receiving the service. Therefore, the O & M Expense would have a priority over Debt Service of the City. This is true whether the language is as plain as it is or not. Therefore, the NTMWD Bond Attorneys believe it to be in the best interest to clearly state the proposition which would assist in the Attorney General's approval of the contract revenue bonds for the NTMWD.

16. THE CITIES ARE OBLIGATING THEMSELVES FOR THEIR PROPORTIONATE SHARE OF EACH ANNUAL REQUIREMENT WHETHER OR NOT THEY ACTUALLY EVER RECEIVE OR USE WATER FROM THE NTMWD; IS THIS FAIR?

This is strong language, but again we must remember that the NTMWD does not supply service to a group of citizens, on a retail basis; instead it supplies service to the city. Therefore, the only revenue base the NTMWD has is payment from the city. If bondholders are to put their money into bonds they must be assured that funds will be available to repay the bonds and to keep the system operating so that it can continue to generate the revenue to pay the bonds. The city makes the same pledge when it sells its bonds as it agrees to repay the debt whether the facilities the bonds are sold for are ever built or not, whether they are ever used by their citizens or not, as an unconditional pledge to assure the bondholder that he will be repaid; therefore it appears reasonable to place the NTMWD in the same condition.

17. IS "FORCE MAJEURE" AN EXCUSE FOR FAILURE ON THE PART OF THE NTMWD?

Force Majeure is a normal condition in most contracts and in all regional revenue bond contracts in order to protect bondholders and the agency performing the service. If the problem is a management problem it would be expected that the Board of Directors would remove the management and replace them with competent management which would resolve the problem. Again, it appears that the question does not comprehend the NTMWD as being an agency of the cities controlled by the cities. This does seem to be a standard Force Majeure clause and there does not appear to be any reason to make any changes in the language.

18. SHOULD EACH MEMBER CITY BE NAMED AS AN ADDITIONAL INSURER IN THE NTMWD INSURANCE POLICY?

The NTMWD carries normal insurance for an agency of its size and character. All insurance policies are listed by dates and amount of premiums and coverage on the last page of the NTMWD Annual Audit. To make all eleven Member Cities additional insurers would increase the premiums of the policy substantially, while in essence not really accomplishing anything. The NTMWD through the Board of Directors would determine best use of the funds. Any loss paid to the NTMWD would be used to rebuild the system, or in whatever other manner possible place the NTMWD in a financial position to provide service. If the funds do not come from the insurance company, they would by contract come from the cities.

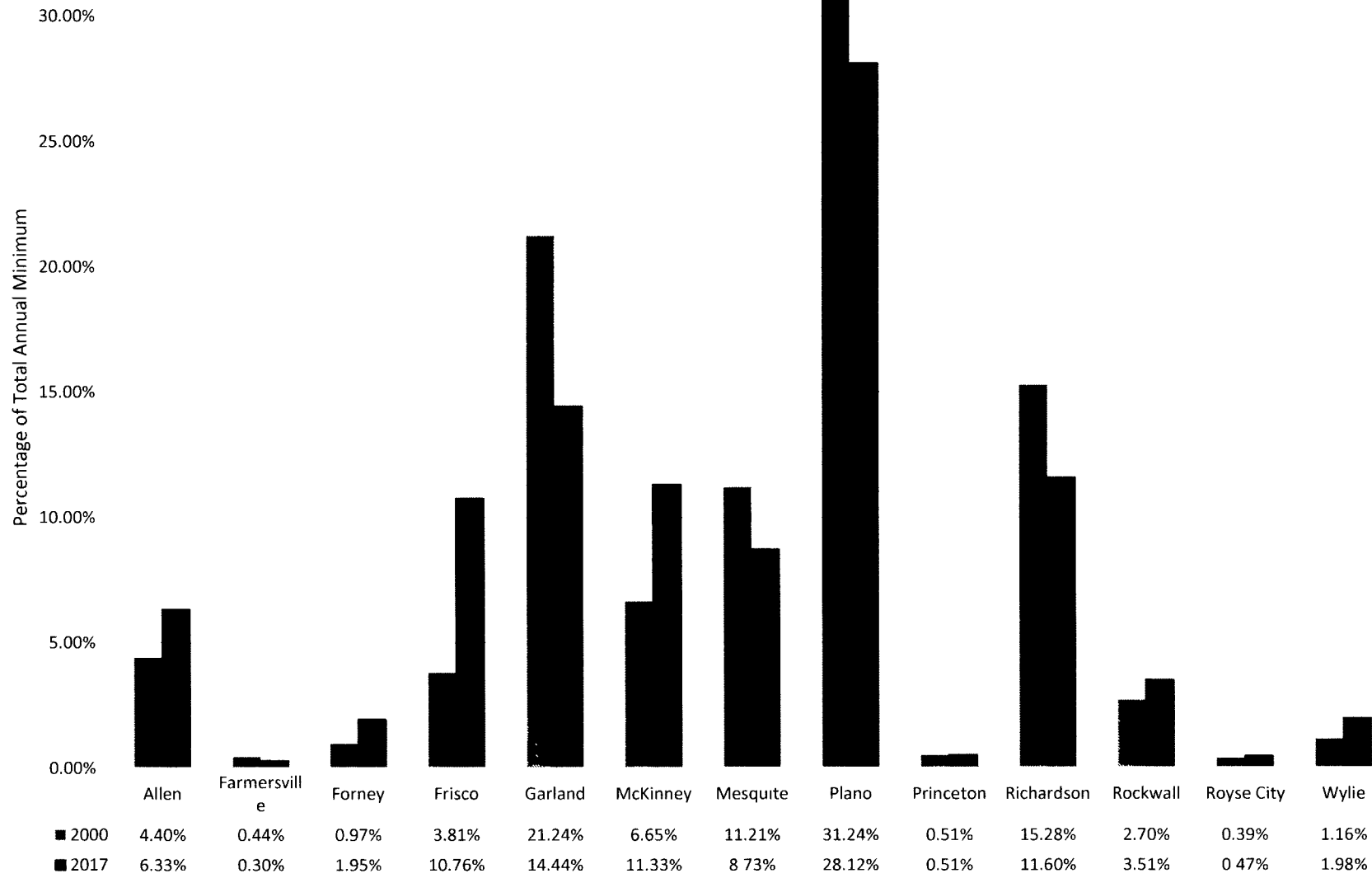
19. DOES THE NTMWD HAVE AN ANNUAL AUDIT?

The NTMWD is required by State Law to have an Annual Audit which must conform with the Auditing Rules and Regulations of the Texas Water Commission. Copies of the Audit must be filed with the Water Commission and in the County. Copies of the Audit are also made available to all cities, major bondholders, and others on request. For the last several years Arthur Young and Company has prepared the audit as directed by the NTMWD Board of Directors and conforms to the major elements of the Governmental Finance Officers Association.

20. THE NTMWD HAS MANY WATER CONTRACTS WITH CUSTOMERS OTHER THAN THE MEMBERS, WHO ARE THEY AND HOW MUCH WATER DO THEY USE?

The NTMWD provides service to eleven Member Cities and twenty-four smaller cities, water supply corporations, or municipal utility districts. On the back of each monthly newsletter is a complete three year breakdown of the entities and how much water they use. The City of Dallas is a fixed minimum customer and serves a small area in Dallas Casa View. When the Dallas volume is subtracted the remaining entities will use less than 10% of the total water of the NTMWD. These include the cities of Allen, Fairview, Fate, Frisco, Kaufman, Lucas, Murphy, Rowlett, Sachse, and Sunnyvale, with Water Supply Corporations of Cash, College Mound, East Fork, Forney Lake, Gastonia-Scurry, Lavon, Milligan, Mt. Zion, Nevada, Pecan Orchard, Rose Hill, and Wylie Northeast plus the Seis Lagos Municipal Utility District.

Comparison of Member Cities Percentage of the Total Annual Minimum Requirement 2000 vs 2017



Retail Rate Analysis of Petitioning Cities
PUC Docket No. 46662

| Garland ⁽¹⁾ | | | | Mesquite ⁽²⁾ | | | | Plano ⁽³⁾ | | | | Richardson ⁽⁴⁾ | | | |
|--|---------------------|-----------------------|--|---|---------------------|-----------------------|--|---|---------------------|-----------------------|--|---|---------------------|-----------------------|--|
| Minimum Charge \$ 16.45 0 - 3,000 4.35 3,000 - 15,000 5.49 15,000 + 8.78 | | | | Minimum Charge (0 - 1,000 gal) \$ 13.00 1,000 - 5,000 5.53 5,000 - 10,000 5.94 10,000 - 50,000 6.24 50,000 - 70,000 6.53 70,000 - 500,000 6.84 500,000 + 5.65 | | | | Minimum Charge (0 - 1,000 gal) \$ 20.48 1,000 - 5,000 0.60 5,000 - 20,000 3.10 20,000 - 40,000 6.19 40,000 + 7.50 | | | | Minimum Charge \$ 8.00 0 - 11,000 5.16 11,000 - 20,000 5.58 20,000 - 40,000 5.82 40,000 - 60,000 6.77 60,000 + 7.08 | | | |
| <u>Consumption Amt</u> | <u>Monthly Bill</u> | <u>Effective Rate</u> | | <u>Consumption Amt</u> | <u>Monthly Bill</u> | <u>Effective Rate</u> | | <u>Consumption Amt</u> | <u>Monthly Bill</u> | <u>Effective Rate</u> | | <u>Consumption Amt</u> | <u>Monthly Bill</u> | <u>Effective Rate</u> | |
| - | \$ 16.45 | \$ 16.45 | | - | \$ 13.00 | \$ 13.00 | | - | \$ 20.48 | \$ 20.48 | | - | \$ 8.00 | \$ 8.00 | |
| 1,000 | 20.80 | 20.80 | | 1,000 | 13.00 | 13.00 | | 1,000 | 20.48 | 20.48 | | 1,000 | 13.16 | 13.16 | |
| 2,000 | 25.15 | 12.58 | | 2,000 | 18.53 | 9.27 | | 2,000 | 21.08 | 10.54 | | 2,000 | 18.32 | 9.16 | |
| 3,000 | 29.50 | 9.83 | | 3,000 | 24.06 | 8.02 | | 3,000 | 21.68 | 7.23 | | 3,000 | 23.48 | 7.83 | |
| 4,000 | 34.99 | 8.75 | | 4,000 | 29.59 | 7.40 | | 4,000 | 22.28 | 5.57 | | 4,000 | 28.64 | 7.16 | |
| 5,000 | 40.48 | 8.10 | | 5,000 | 35.12 | 7.02 | | 5,000 | 22.88 | 4.58 | | 5,000 | 33.80 | 6.76 | |
| 6,000 | 45.97 | 7.66 | | 6,000 | 41.06 | 6.84 | | 6,000 | 25.98 | 4.33 | | 6,000 | 38.96 | 6.49 | |
| 7,000 | 51.46 | 7.35 | | 7,000 | 47.00 | 6.71 | | 7,000 | 29.08 | 4.15 | | 7,000 | 44.12 | 6.30 | |
| 8,000 | 56.95 | 7.12 | | 8,000 | 52.94 | 6.62 | | 8,000 | 32.18 | 4.02 | | 8,000 | 49.28 | 6.16 | |
| 9,000 | 62.44 | 6.94 | | 9,000 | 58.88 | 6.54 | | 9,000 | 35.28 | 3.92 | | 9,000 | 54.44 | 6.05 | |
| 10,000 | 67.93 | 6.79 | | 10,000 | 64.82 | 6.48 | | 10,000 | 38.38 | 3.84 | | 10,000 | 59.60 | 5.96 | |
| 11,000 | 73.42 | 6.67 | | 11,000 | 71.06 | 6.46 | | 11,000 | 41.48 | 3.77 | | 11,000 | 64.76 | 5.89 | |
| 12,000 | 78.91 | 6.58 | | 12,000 | 77.30 | 6.44 | | 12,000 | 44.58 | 3.72 | | 12,000 | 70.34 | 5.86 | |
| 13,000 | 84.40 | 6.49 | | 13,000 | 83.54 | 6.43 | | 13,000 | 47.68 | 3.67 | | 13,000 | 75.92 | 5.84 | |
| 14,000 | 89.89 | 6.42 | | 14,000 | 89.78 | 6.41 | | 14,000 | 50.78 | 3.63 | | 14,000 | 81.50 | 5.82 | |
| 15,000 | 95.38 | 6.36 | | 15,000 | 96.02 | 6.40 | | 15,000 | 53.88 | 3.59 | | 15,000 | 87.08 | 5.81 | |
| 16,000 | 104.16 | 6.51 | | 16,000 | 102.26 | 6.39 | | 16,000 | 56.98 | 3.56 | | 16,000 | 92.66 | 5.79 | |
| 17,000 | 112.94 | 6.64 | | 17,000 | 108.50 | 6.38 | | 17,000 | 60.08 | 3.53 | | 17,000 | 98.24 | 5.78 | |
| 18,000 | 121.72 | 6.76 | | 18,000 | 114.74 | 6.37 | | 18,000 | 63.18 | 3.51 | | 18,000 | 103.82 | 5.77 | |
| 19,000 | 130.50 | 6.87 | | 19,000 | 120.98 | 6.37 | | 19,000 | 66.28 | 3.49 | | 19,000 | 109.40 | 5.76 | |
| 20,000 | 139.28 | 6.96 | | 20,000 | 127.22 | 6.36 | | 20,000 | 69.38 | 3.47 | | 20,000 | 114.98 | 5.75 | |

(1) Pet. Cities Response to Frisco First RFI, RFI 1-15, 01_Garland_VOL 01_Q1-15 Wtr Rate Ordinances 1988-2018 pdf, Page 232, Rates Effective 10/1/2016

(2) Pet. Cities Response to Frisco First RFI, RFI 1-15 Attachment, Page 55 - Ordinance No. 4446, Rates Effective 10/1/2016

(3) Pet. Cities Response to Frisco First RFI, RFI 1-15 Attachment, Page 93 - Rates Effective 11/1/2016

(4) Pet. Cities Response to Frisco First RFI, RFI 1-15 Attachment, Page 123, Rates Effective 11/1/2016

SOAH DOCKET NO. 473-17-4964.WS

PUC DOCKET NO. 46662

PETITION OF THE CITIES OF § BEFORE THE STATE OFFICE
GARLAND, MESQUITE, PLANO §
AND RICHARDSON APPEALING §
THE DECISION BY NORTH § OF
TEXAS MUNICIPAL WATER §
DISTRICT AFFECTING §
WHOLESALE WATER RATES § ADMINISTRATIVE HEARINGS

ORAL DEPOSITION OF

BENTE VILLADSEN, Ph.D.

JANUARY 10, 2018

ORAL DEPOSITION OF BENTE VILLADSEN, Ph.D., produced as a witness at the instance of North Texas Municipal Water District, and duly sworn, was taken in the above-styled and numbered cause on the 10th day of January, 2018, from 9:35 a.m. to 2:18 p.m., before STEVEN STOGEL, CSR in and for the State of Texas, reported by machine shorthand, at the Law Offices of Vinson & Elkins, 2801 Via Fortuna, Suite 100, Austin, Texas, pursuant to the Texas Rules of Civil Procedure and the provisions stated on the record or attached hereto.

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1 usage would be?

2 A That would require a study of what is the
3 likely future uses in the parties that are members to
4 the contract, as well as the customer cities.

5 Q Right. And we haven't done that kind of study.
6 Right?

7 A No.

8 Q Right. And if we were to do that study, it's
9 possible it will show a lot of growth, and maybe the
10 rates are exactly what they should be. Right?

11 A That is a possibility.

12 Q I mean, Plano is not decreasing in size the
13 last time I was there. It's still growing. Right?

14 A All of the cities are still growing --

15 Q Right.

16 A -- by small amounts.

17 Q Sure. Okay. Look at Page 30 of your
18 testimony. I'm looking at Lines 4 and 5. It says, "The
19 district uses effective rates to compare how much its
20 customers actually pay and to assess alternative rate
21 options."

22 Does the district use effective rates when
23 it's trying to plan for its supplier capacity needs?

24 A I do not know.

25 Q Do you know if effective rates are included in

1 Rule 24.133?

2 A I do not know.

3 Q Do you know if the commission has ever
4 considered effective rates in analyzing the public
5 interest -- in performing a public interest
6 determination of a rate?

7 A I do not know.

8 Q Do you know if anyone actually uses effective
9 rates for any practical purpose?

10 MR. HOLCOMB: Objection; form.

11 A Certainly companies will calculate an effective
12 rate to determine whether -- how much impact there is on
13 customers or anything along those lines. Like companies
14 that had straight fixed variable design, as we talked
15 about before, will calculate what is that actually per
16 customer to determine whether or not that seems
17 reasonable.

18 Q (BY MR. JOHNSON) Do you think they would use
19 an effective rate to assess whether a rate is consistent
20 with a straight fixed variable design?

21 A No, but they will look at what does it mean.

22 Q Okay. And we can agree that effective rates go
23 up and down every single year. Right?

24 A Effective rates will change with the revenue
25 requirement and with the usage.

1 Q So it seems to me like they've been conserving
2 a lot. Right?

3 A They've been conserving, yes.

4 Q I mean, isn't your position that -- and I'm
5 looking at Exhibit BV-3 -- your Exhibit BV-3, Deposition
6 Exhibit 24. Isn't it your position that a lot of this
7 decrease in usage is directly attributable to
8 conservation efforts?

9 A Certainly a portion of that is attributed to
10 conservation efforts.

11 Q Okay. But you still think that they're not
12 sufficiently incentivized to conserve based on the
13 current rates?

14 A Their actual use as we see here is based on the
15 rates that customers of the cities are seeing, not based
16 on the district's rates. So my discussion here is about
17 whether the district is providing incentives to
18 conserve. The cities might well provide incentives even
19 if the district did not.

20 Q The district doesn't dictate how the city set
21 rates, though. Right?

22 A They do not.

23 Q They can set rates any way they need to to
24 recover the costs that they have to pay to the district
25 for supply?

1 A Any way that's within the boundaries of how
2 they can set rates given the city.

3 Q Okay. So is it your position that the minimums
4 don't incentivize conservation at all?

5 A They don't incentivize conservation any longer,
6 because they're currently -- if we look at a city like
7 Garland, they have in the most recent five years been
8 pretty far away from that minimum.

9 Q Okay. But they've been conserving in that five
10 years?

11 A Sure.

12 Q In fact, I mean, it's their conservation
13 efforts, according to you, is the reason why we're here
14 Right?

15 A It's conservation efforts and non-growth
16 relative to other parts of -- other cities that are
17 taking water from the district.

18 Q Okay. So the district can't decide -- it can't
19 dictate how much water Plano uses. Right?

20 MR. HOLCOMB: Objection; form.

21 Q (BY MR. JOHNSON) Can the district dictate how
22 much water Plano uses?

23 A No.

24 Q Can it dictate what Plano's conservation
25 programs are?



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The Feasibility of Regionalizing Water and Wastewater Utilities:

A TCEQ Policy Statement

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A TCEQ Policy Statement

Prepared by
Water Supply Division

RG-357
January 2003



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Introduction

Building and operating a successful water or wastewater system is not easy. To comply with the state and federal requirements that ensure that drinking water is safe and wastewater is treated adequately, you must have—or have access to—these and other resources:

- ! for drinking water systems, an adequate and reliable source of water that either is or can be made safe for human consumption;
- ! the financial resources and technical ability to design and build a system that can provide service effectively and reliably;
- ! the financial resources and technical ability to operate and maintain the system so it operates safely for your workers, your customers, and, in the case of wastewater systems, the environment;
- ! the ability to read and understand the many, highly technical state and federal regulations associated with water and wastewater systems;
- ! the management skill to successfully operate a business that is critical to public welfare.

Recognizing the critical role these resources play in the success of a water system, Congress amended the Safe Drinking Water Act in 1996. Under these amendments, states must determine whether new community water systems are likely to be able to comply with regulatory requirements.

In 1997, the 75th Texas Legislature made similar amendments to Chapter 341 of the Texas Health and Safety Code and Chapter 13 of the Texas Water Code.

Along with other recent legislative changes—and wastewater regulations that were already on the books—these amendments establish a clear message: All new public water systems and any wastewater systems owned and operated by entities required to obtain a CCN must be capable of operating efficiently and effectively for the long term. In Texas, the Texas Commission on Environmental Quality (TCEQ, “we”) is responsible for reviewing and approving the design and operating plans of proposed water systems, and the Texas Water Development Board (TWDB) can assist growing areas with water resource planning.

This document states the TCEQ’s policy for evaluating applications for new systems to determine whether regionalization—the consolidation of the operations, physical systems, or both of two or more existing or proposed water or domestic wastewater systems—is a viable option for the

proposed new system. The goal of this policy is to achieve the best service to the consumer at rates that will ensure that the system is maintained for the long term.

In this policy, we also address the issue of when existing systems that are struggling to remain in compliance with state and federal regulations should consider the option of regionalization.

See Appendix B for details on the statutory authority for this policy.

A Few Important Terms

Before discussing this policy further, we need to define some important terms. These simplified definitions are intended to help you understand these terms as we use them in this policy statement. However, the official definitions are as stated in the relevant statute or rule.

Types of Systems

system—a physical plant plus the lines that connect it to the customer.

public water system (PWS)—any drinking water system that has the potential to serve at least 15 connections or that does serve at least 25 people for at least 60 days out of one year. For example, mobile home parks, truck stops, and restaurants that have their own water supply usually meet the minimum standard of being a PWS. For a PWS, the system comprises the source of the water, the water treatment plant, and the water lines that distribute water to the consumer.

wastewater system—For a wastewater system, the system comprises the sewer lines that collect the wastewater from the customer and carry it to the wastewater treatment facility as well as the treatment facility itself.

Types of Service Providers

retail public utility—any city, county, district, utility (as defined below), or water supply corporation that charges a fee to directly provide water or sewer service to consumers. (*Note:* “Utility” might seem to be the broader term, but, as defined in the law, “retail public utility” actually includes “utility”: All “utilities” are “retail public utilities,” and not all “retail public utilities” meet the law’s narrower definition of “utility.”)

utility—a person, partnership, corporation, or “affected county” that charges a fee to directly provide water or sewer service to consumers. Also called “investor-owned utility,” “water” or “sewer utility,” or “public utility.” (See “Other Terms” below for a definition of “affected county.”)

water supply corporation—a nonprofit corporation organized under state law (Texas Water Code Chapter 67) to provide water or sewer service.

Other Terms

affected county—a county within 50 miles of the international border.

certificate of convenience and necessity (CCN)—a TCEQ document that defines your water or sewer service area. Your system might not extend to the limits of this service area, but other utility service providers generally may not encroach upon your service area. If anyone in this area applies for service, you generally must serve them. You may use one or more systems to serve this area. An affected county, investor-owned utility, or water supply corporation must obtain a CCN, but a city, district, or other county does not need one. If your water system or systems cannot serve more than 15 connections, you may ask to be exempted from this requirement. See Title 30 Texas Administrative Code (30 TAC) Chapter 291 for more details about CCNs.

What Is the Regionalization Policy?

Our policy is that regionalization is feasible unless one of these three exceptions applies:

- (1) No other systems are reasonably close to your planned system.
- (2) You have requested service from neighboring systems, and your request has been denied.
- (3) You can successfully demonstrate that an exception based on costs, affordable rates, and financial, managerial, and technical capabilities of the existing system should be granted.

If you apply for a new certificate of convenience and necessity (CCN), then you must demonstrate that one of these three exceptions applies to your system. You must give our staff related information in sufficient detail for them to determine whether an exception applies. If you wish to construct or operate a new PWS, even if you are not required to obtain a CCN to operate, then you must still demonstrate that one of these three exceptions applies to your system and give our staff related information in sufficient detail for them to determine whether an exception applies.

Why This Policy?

By encouraging the regionalization of water and wastewater systems, we hope to protect the health, safety, and welfare of Texans by ensuring a

long-term supply of safe water at affordable rates and by maintaining the quality of water in the state.

The ultimate goal of regionalization is to provide timely and cost-effective solutions for achieving quality service. Drinking water and wastewater systems are facing an ever-increasing demand on their resources to stay in compliance with provisions of the federal Safe Drinking Water Act and federal Clean Water Act. The costs associated with compliance are higher per person as the system size decreases.

In applying this policy, we are ensuring a steady decrease in the number of Texans who are being served by systems that are unable to sustain the financial, managerial, and technical capabilities necessary to provide continuous and adequate service. And we are ensuring that fewer new systems will encounter the same financial, managerial, and technical problems being faced by existing weak systems.

Whenever the formation of a regional system is the least expensive long-term solution for providing quality service, we will require proponents of new systems to form a regional system instead. Only a system with adequate financial, managerial, and technical capacity can reliably provide good quality drinking water in sufficient quantities and basic sanitation service that meets regulatory standards.

To Whom Does This Policy Apply?

This policy applies to the following entities regulated by the TCEQ:

- ! owners and operators of new PWSs;
- ! applicants requesting approval for a new water or sewer CCN for a proposed facility, or for an existing facility if a CCN was required to be obtained before the system was constructed.

This guidance document will not change our administrative rule requirements and procedures relating to rate making, CCNs, and PWSs. Rather, this guidance document is advising all CCN applicants and owners or operators of proposed PWSs to take proactive measures to either form sound regional systems or demonstrate the ability to operate a viable, stand-alone utility system.

As a CCN applicant or an owner or operator of a proposed PWS, you must evaluate the availability of a regional system before you submit the actual CCN application, plans and specifications, and, if required, business plan. As part of determining whether regionalization is feasible, our staff will evaluate these materials.

This guidance document will not apply to wastewater systems that are not required to hold a CCN and do not apply for a CCN.

Must Existing Systems Regionalize?

Although the purpose of this regulatory guidance document is to provide guidance to new systems, a similar regionalization review will apply to the owners and operators of any existing PWS that:

- ! was constructed without the necessary approval,
- ! has a history of noncompliance, or
- ! is subject to a TCEQ enforcement action.

What Will “Regionalization” Look Like?

The structure and operation of any particular regional system will depend on the individual circumstances. Under this policy, regionalization can take any one of these forms:

- ! one owner and one large system serving several different communities or subdivisions;
- ! one owner and several isolated systems, each providing service to one or more communities or subdivisions;
- ! several owners, each with individual systems operated through a centrally coordinated operating system;
- ! several owners, each with an isolated system, all served by a central wholesale provider; or
- ! the existence of permanent emergency interconnections.

We do not presume that any particular ownership structure of a PWS is more appropriate to serve as a regional provider. Any retail public utility could serve as the regional provider if it can meet the necessary requirements under 30 TAC Chapters 290 and 291.

How Does This Policy Outline Responsibilities?

Based on state law and our rules, this policy calls for us, any person proposing a new system, and existing providers to fulfill specific responsibilities.

What the TCEQ Must Do

Through our programs in the Water Supply Division, we must ensure that PWSs supply safe drinking water in adequate amounts and are financially stable and technically sound. We must also promote the use of regional and areawide drinking water systems.

In meeting these responsibilities, we must review the engineering plans and specifications of all proposed PWSs. For any proposed PWS that is to

be privately owned, we must also review the system's business plan. For any water or wastewater system that must have a new CCN, we must review the application, review the system CCN maps, and consider the financial, managerial, and technical capabilities of the applicant.

What You Must Do

If you wish to build a new PWS or apply for a new CCN, then you must comply with our rules for these systems (30 TAC Chapters 290 and 291) and follow the guidance set out in this document.

Among other requirements, our rules state that you must obtain our approval of your engineering plans and specifications before you begin building your proposed PWS. For a privately owned PWS, you must also have our approval of your business plan before construction may begin.

What Existing Providers Must Do

Existing providers that hold CCNs must provide prompt responses to requests for service, treat all applicants equitably, charge application fees that are reasonable, and charge cost-based fees for providing service to the specific development receiving that service.

Where Do I Begin?

The first step in determining whether regionalization is feasible is to identify all the water or wastewater systems within the specified distance that state law considers to be “reasonably close”—that is, half a mile for a new PWS and 2 miles for new CCNs. The second step is to read our policy and see how it applies to you.

Locate Nearby Systems

First, you must identify and locate all neighboring systems. From our records, we can provide you with some information about nearby systems, ***but it is your responsibility to make sure that this information is complete, accurate, and current.*** You might have to do local research—perhaps even some fieldwork—to complete this task. Here are a few tips that can make your research more productive:

- ! First, contact us as described under “Finding Nearby Water Systems” below and “Finding Nearby Wastewater Systems” on page 7 to get the most recent information we have.
- ! Drive the area. Systems must have identification at all plant sites.
- ! Look in the Yellow Pages under “Water Companies-Utility.”

- ! Talk to the operators of any systems you discover to find out where they serve or who operates the nearest systems.
- ! Review our maps for CCN service areas and contact each system's owner or operator to find out the limit of its service area. Don't assume that the limit of the physical system is the same as the limit of the service area.
- ! Contact county offices to find out about subdivision plats on file. Each city should also have this information for areas inside that city's extraterritorial jurisdiction, or "ETJ."

Finding Nearby Water Systems

You can obtain our most recent information on public water systems or utilities in one or more counties from the online Water Utilities Database (WUD). WUD contains data on public water systems, water and sewer utilities, and water districts.

You can use this database to search for an individual public water system, utility, or district. You can also do an "advanced search" to filter a list of entities from the database. To find WUD, go to the TCEQ Web site (www.tceq.state.tx.us) and enter "WUD" in the "Search" box at the upper right of the home page. Online training is available for WUD. There are also some electronic maps showing CCN areas available on WUD and on the TCEQ's GIS Web page (from the home page, enter "GIS" in the "Search" box at upper right).

As an alternative to using WUD, you can contact our Information Resources Division as shown in Table 1 on page 9. The Information Resources Division can provide information such as public water system or utility name, contact person, and address. There may be a charge for obtaining a list of systems from the Information Resources Division.

After you have focused your search on the systems in one particular area, and if a map is not available on our Web site, contact our Utilities and Districts program (512/239-4691). Using our most recent maps, staff in this program can help you identify service areas and the service providers who operate in those areas.

For further information about water service providers, you should also review the regional water plan for your regional water planning area. Contact the Texas Water Development Board at 512/463-7847 or through its Web site (www.twdb.state.tx.us) for a map of regional water planning areas and contact names for each of the regional water planning groups.

Finding Nearby Wastewater Systems

Finding nearby wastewater systems is similar to finding nearby water systems, with one exception: You can narrow your search by contacting our Water Quality Assessment program first, as shown in Table 1 on page 9. (If you would like to get a list of *all* systems in one or more counties, go straight to Information Resources instead.)

With the name of the county in which you are proposing to build your system and a map of the area you plan to serve, our Water Quality Assessment program can locate the wastewater outfalls of nearby systems. (An outfall is the point where the system's treated wastewater is discharged into state waters.)

The advantage of locating outfalls is that you may be able to find a wastewater treatment plant that is accessible to your proposed development even if the system served by that plant is not nearby. If the plant has excess capacity, the service provider might allow you to connect your system to that plant or to an interceptor line feeding the plant.

However, once you have this information, keep these points in mind:

- ! The rules require you to contact systems whose *service areas* are within 2 miles of your proposed service area.
- ! Our Water Quality Assessment staff can tell you the position of the *outfall*, but they do not know the boundaries of the service area.
- ! Outfalls generally are located downstream of the systems themselves.

Our Water Quality Assessment staff can also tell you the water quality permit numbers for each plant. Once you know these permit numbers, our Information Resources Division can give you the mailing address of each permit holder. If you need more help, contact our Utilities and Districts program.

Information Sources

As stated previously, you can obtain our most recent information on public water systems or utilities in one or more counties from the online Water Utilities Database (WUD). WUD contains data on public water systems, water and sewer utilities, and water districts, and can be accessed from the TCEQ Web site (www.tceq.state.tx.us). If you prefer to make a written request for this information, see Table 1 on the facing page for contact information and the information you must include with your request.

For further information about water supply sources, you should also review the regional water plan for your regional water planning area. Contact the Texas Water Development Board at 512/463-7847 or through

Table 1. How to Get Information about Existing Systems from the TCEQ

| <i>For public water systems ...</i> | | |
|--|--|--|
| To get this information: | Include this information in your request: | And send your request to: |
| A list of all water service providers in one or more counties (do this <i>first</i>) | The name of each county for which you want this information (<i>be sure to indicate that you want a list of public water systems</i>) | TCEQ Information Resources, MC 197 PO Box 13087 Austin TX 78711-3087 fax: 512/239-0888 phone: 512/239-DATA (3282) |
| Water service area boundaries of systems that have CCNs (<i>after</i> you have focused on a specific area or provider) | An accurate area map showing the location and approximate boundaries of your proposed development | TCEQ Utilities and Districts, MC 153 PO Box 13087 Austin TX 78711-3087 fax: 512/239-6972 phone: 512/239-4691 |
| <i>For wastewater systems ...</i> | | |
| To get this information: | Include this information in your request: | And send your request to: |
| Locations of wastewater outfalls (and the permit number for each outfall) in a specific area | An accurate area map showing the location and approximate boundaries of your proposed development | TCEQ Water Quality Assessment, MC 150 PO Box 13087 Austin TX 78711-3087 fax: 512/239-4420 phone: 512/239-4671 |
| The mailing address of a permit holder | The permit number for the corresponding outfall | TCEQ Information Resources, MC 197 PO Box 13087 Austin TX 78711-3087 fax: 512/239-0888 phone: 512/239-DATA (3282) |
| A list of all wastewater service providers in one or more counties | The name of each county for which you want this information (<i>be sure to indicate that you want a list of wastewater systems</i>) | TCEQ Information Resources, MC 197 PO Box 13087 Austin TX 78711-3087 fax: 512/239-0888 phone: 512/239-DATA (3282) |
| Sewer service area boundaries of systems that have CCNs (<i>after</i> you have focused on a specific area or provider) | An accurate area map showing the location and approximate boundaries of your proposed development | TCEQ Utilities and Districts, MC 153 PO Box 13087 Austin TX 78711-3087 fax: 512/239-6972 phone: 512/239-4691 |

its Web site (www.twdb.state.tx.us) for a map of regional water planning areas and contact names for each of the regional water planning groups.

Start Reading This Policy

If you plan to build a new PWS, start your reading with “New Public Water Systems” on the next page. If you also need a new CCN and the information in “New Public Water Systems” indicates that your water system qualifies for an exception to this regionalization policy, then you must continue your reading with “New Water and Wastewater CCNs” on page 15.

If you are applying for a new CCN to build a stand-alone sewer system only, start your reading with “New Water and Wastewater CCNs” on page 15.

New Public Water Systems

If you plan to build a new PWS, you must evaluate the feasibility of regionalization before you submit your plans, specifications, and, if required, business plan to us. Our policy is that regionalization is feasible unless one of these three exceptions applies:

Do You Need a CCN, Too?

If your proposed PWS will be owned privately or by a water supply corporation *and* you plan to charge your customers a fee for service, then you must also obtain a CCN.

If you need to obtain a CCN, see “New Water and Wastewater CCNs” on page 15 *after* you have read this chapter.

- (1) There are no PWSs within one-half mile.
- (2) You have requested service, and your request has been denied.
- (3) You can successfully demonstrate that an exception based on costs, affordable rates, and financial, managerial, and technical capabilities of the existing system should be granted.

To develop a new stand-alone system, you must consider these three exceptions in this order and then demonstrate that one of these exceptions applies to your system. To receive an exception from this policy, you must provide us the information identified in this chapter.

See Flowchart 1 on page 12 for an overview of this process.

Exception 1: No public water systems within 0.5 mile

If there are existing PWSs within one-half mile of your service area, go to Exception 2 below.

If no PWSs exist within one-half mile of your service area, and you do not need a new CCN (see the box above and to the left), you may proceed to submit your plans, specifications, and, if required, business plan for a stand-alone system.

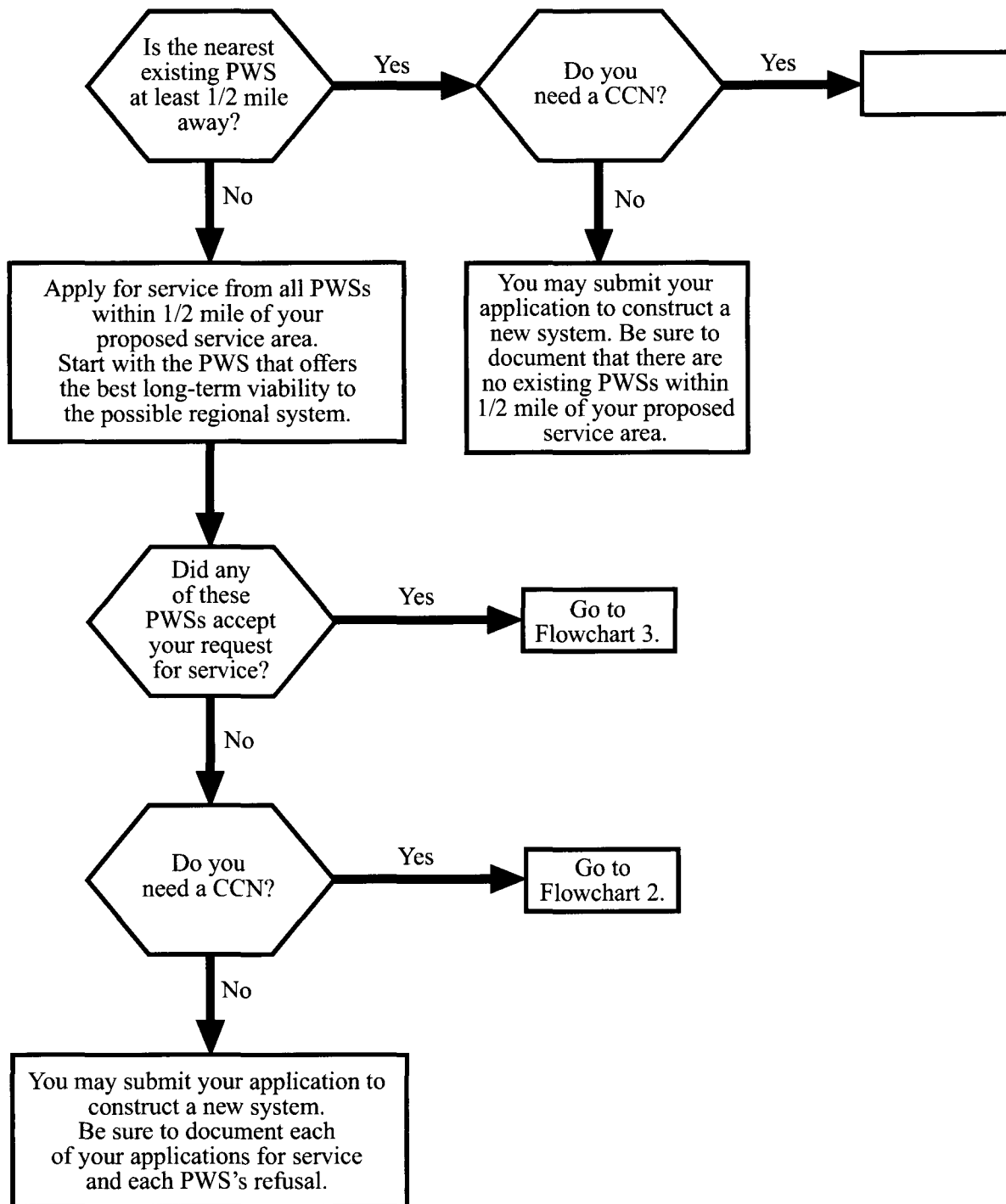
Note: If more than one existing system is within 0.5 mile of your proposed service area, we recommend that you consider establishing regional service with the existing system that will provide the best long-term viability.

Exception 2: Your request for service has been denied

Have you formally applied for service from these systems?

You must apply for service from the existing systems by submitting a formal “request for service” application and by paying any associated fees.

Flowchart 1. Is forming a regional PWS feasible?



If there is more than one existing system, we recommend that you consider establishing regional service with the existing system that will provide the best long-term viability.

You must document that you have made every reasonable attempt to request service from all the nearby systems and the appropriate department of each system. If you do not receive a response within a reasonable amount of time, you are responsible for following up.

Was your request for service approved?

If your request was approved, you must work with that system to form a regional system unless you can demonstrate that regionalization is not feasible through Exception 3 below.

If your request was not approved and you do not need a new CCN (see box, page 11, upper left), you may submit your plans, specifications, and, if required, business plan for a stand-alone system. However, you must provide us a copy of the application requesting service and all correspondence from all the existing systems when you submit these materials.

Exception 3: Costs, affordability, and capabilities

Can you successfully demonstrate that an exception should be granted based on costs, affordability, and the capabilities of the existing system?

To analyze the feasibility of regionalization, you must consider the interplay of these interrelated factors:

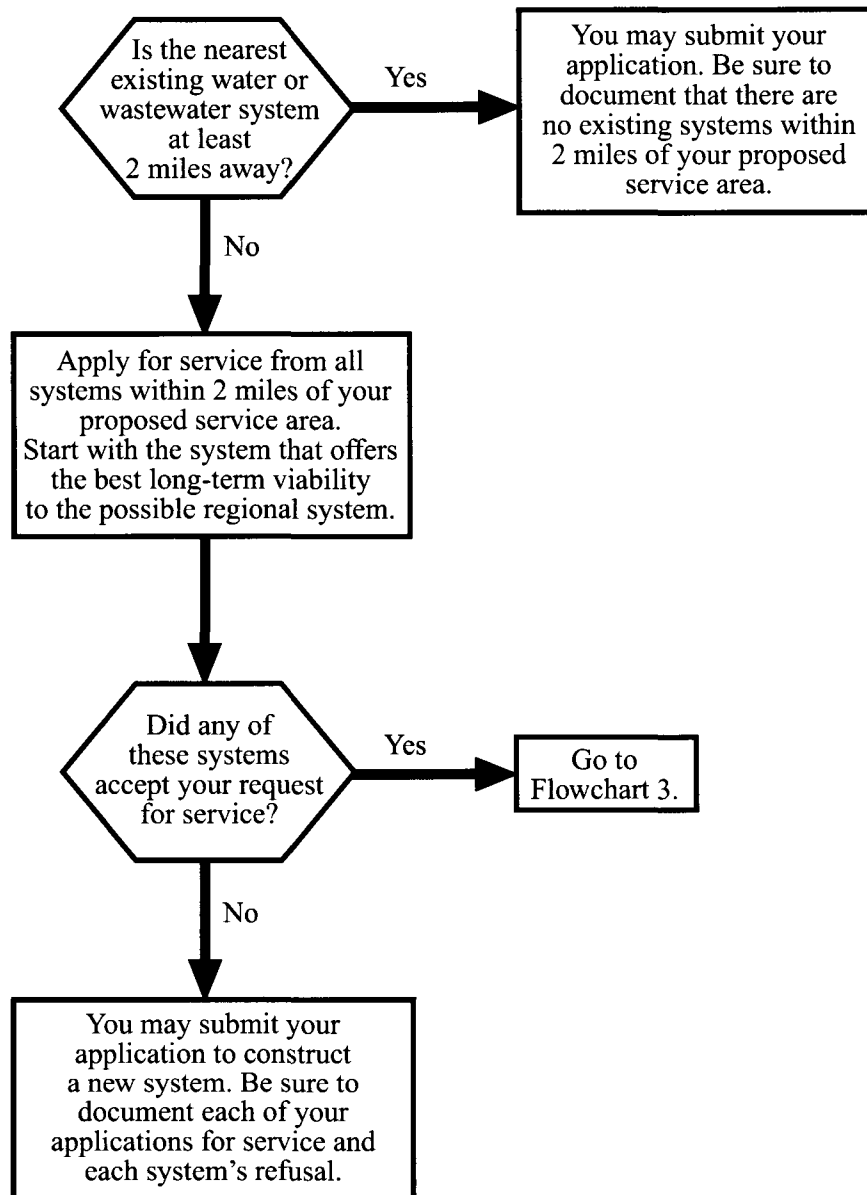
- ! ratio of the costs of regionalization compared to the projected value of the development at buildout;
- ! affordability of the rates; and
- ! financial, managerial, and technical capabilities of the existing system.

These factors are used as a screening process. You qualify for this exception even if you meet only one of these factors.

If you qualify for this exception, you may submit your plans, specifications, and, if required, business plan for a stand-alone system. However, you must also give us the supporting documentation. Before you submit these materials, see the box at the upper left of page 11 to find out whether you also need a CCN.

For a more detailed explanation of how to analyze these factors, see “Appendix A: Analyzing Costs, Affordability, and Capabilities of the Existing System” on page 17.

Flowchart 2. Is forming a regional system feasible when you need a CCN?



New Water and Wastewater CCNs

If you are applying for a new CCN, you must evaluate the feasibility of regionalization before you submit your CCN application and accompanying documents to us.

Our regionalization policy for these new CCNs is just like our policy for new PWSs except for these two points:

- ! You must expand your search for nearby water or wastewater systems to 2 miles from the boundary of your proposed service area.
- ! You do not have to consider the exceptions in order. In other words, you do not have to apply for service from a nearby system if you can demonstrate that costs, affordability, and the capabilities of that system would make regionalization infeasible anyway.

Flowchart 2 on the facing page gives an overview of this process.

Exception 1: No systems within 2 miles

Is an existing PWS or wastewater treatment system within 2 miles of your proposed CCN boundary?

If the nearest system is within 2 miles of your proposed boundary, see whether *either* Exception 2 below or Exception 3 on page 16 applies to you.

If the nearest system is more than 2 miles away, you may submit your CCN application and related materials to us. You are not *required* to consider regionalization. However, we *recommend* that you consider the feasibility of establishing regional service with another system, even if you must look more than 2 miles away.

Note: If more than one existing system is within 2 miles of your proposed boundary, we recommend that you consider establishing regional service with the existing system that will provide the best long-term viability.

Exception 2: Your request for service has been denied

Have you requested service from all of these systems?

If you have requested service, see “Was your request approved?” below.

If you have not requested service from a nearby system, then you must either request service from that system or demonstrate that regionalization is not feasible through Exception 3 on page 16.

Was your request approved?

If the nearby system approved your request for service, see Exception 3 below.

If the nearby system rejected your request for service, you may proceed to submit your plans, specifications, business plan, and CCN application. However, you must provide us a copy of the application requesting service and all correspondence from the existing system when you submit these materials.

Exception 3: Costs, affordability, and capabilities

Can you successfully demonstrate that an exception should be granted based on costs, affordability, and the capabilities of the existing system?

As with a new PWS, to analyze the feasibility of regionalization, you must consider the interplay of these interrelated factors:

- ! ratio of the costs of regionalization compared to the projected value of the development at buildout;
- ! affordability of the rates; and
- ! financial, managerial, and technical capabilities of the existing system.

These factors are used as a screening process. You qualify for this exception even if you meet only one of these factors.

If you qualify for this exception, you may submit your plans, specifications, and, if required, business plan for a stand-alone system. However, you must also give us the supporting documentation.

For a more detailed explanation of how to analyze these factors, see “Appendix A: Analyzing Costs, Affordability, and Capabilities of the Existing System” on page 17.

If You Qualify for None of These Exceptions

If you do not qualify for any one of these exceptions, you should seriously consider regionalization.

However, if you decide to pursue your CCN application, you will have an opportunity to try to demonstrate to the staff that your CCN application should be approved. If your application is protested and an evidentiary hearing is held, you will have an opportunity to demonstrate to the administrative law judge (and ultimately the TCEQ commissioners) that your CCN application should be approved.

Appendix A

Analyzing Costs, Affordability, and Capabilities of the Existing System

Use this information along with Flowchart 3 on page 18 to determine whether an exception should be granted based on costs, affordability of rates, or the capabilities of the existing system.

This appendix discusses whether an exception based on the following interrelated factors should be granted:

- Factor 1:** Ratio of the costs of regionalization compared to the projected value of the development at buildout
- Factor 2:** Affordability of rates
- Factor 3:** Financial, managerial, and technical capabilities of the existing system

These factors are used as a screening process. You qualify for this exception even if you meet only one of these factors.

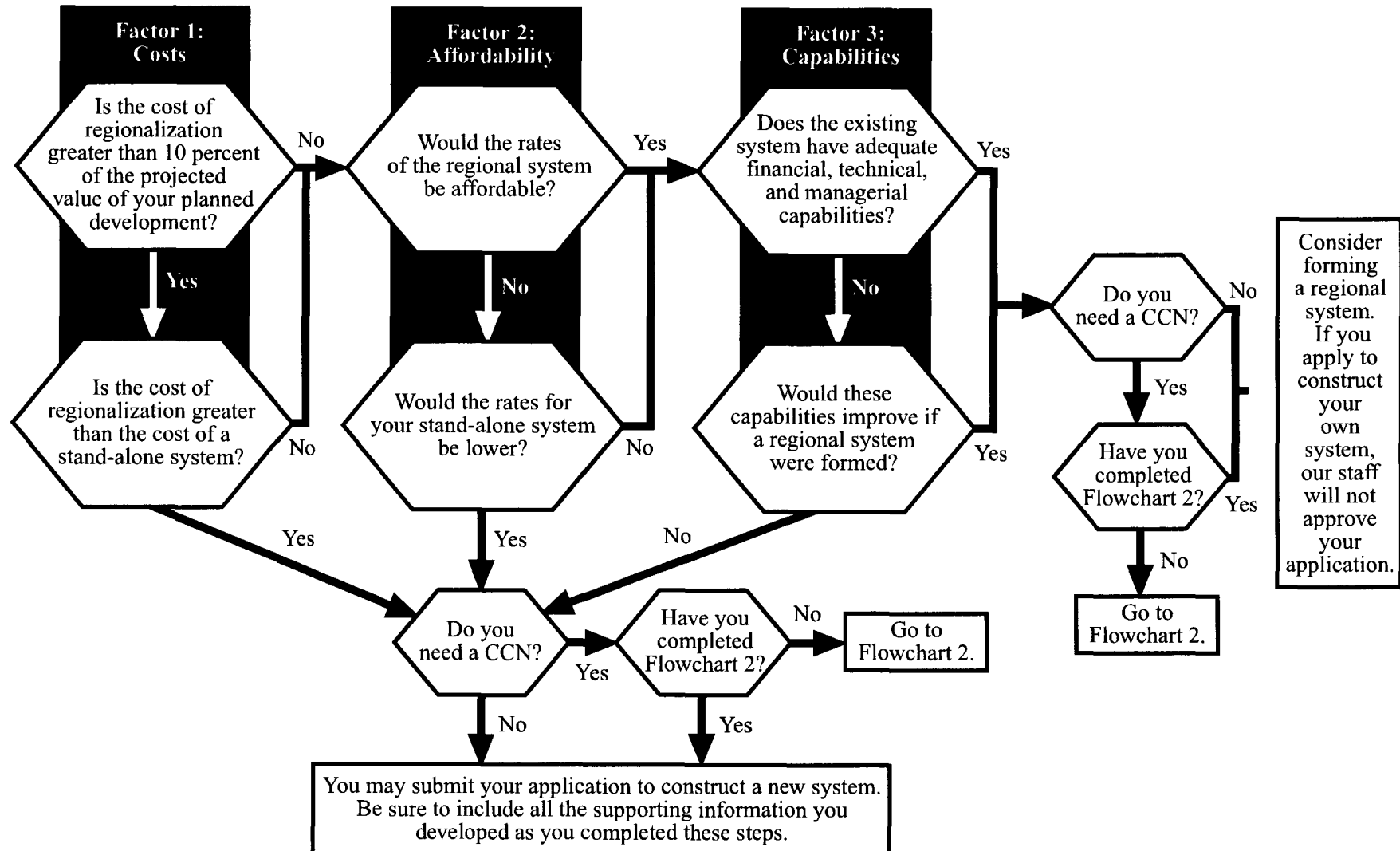
In the following discussion, we do not intend to limit the factors that you may want to raise to support an exception. If you bring to our attention factors not mentioned in this appendix, we will also consider those factors, as appropriate.

Factor 1: Compare Costs to Your Development's Projected Value

The ratio of the costs of regionalization compared to the projected value of the development refers to the comparison of the costs of regionalization to obtain service from an existing system versus the estimated value of the project at full buildout.

The cost of regionalization includes the up-front costs associated with obtaining service from an existing system and the incremental construction costs associated with any delays in construction.

Flowchart 3. Should we grant an exception?



The projected value of the development includes the estimated value of all lots, homes, commercial and industrial improvements, developed reserves, and undeveloped land at buildout, assuming the installation of a stand-alone system.

To propose an exception based on the high costs of regionalization, you must meet both of these criteria:

Criterion 1: The costs of regionalization are greater than 10 percent of the projected value of the development.

Criterion 2: The costs of regionalization are greater than the cost of a stand-alone system.

Determining Costs of Regionalization

Up-Front Costs Associated with Obtaining Service

When an existing water or sewer utility extends new service, this utility service provider can charge connection fees to the person requesting the service, regardless of whether the person is a residential customer or a developer who needs multiple services for a proposed new subdivision.

Examples of these connection fees include:

tap fees—the costs of tapping the main line and installing the tap, service line, meter, and meter box to provide utility service to the customer's property line.

deposit—a bond-type arrangement that can be applied to unpaid charges. This sometimes takes the form of a membership fee that a new customer may be required to pay the utility service provider.

system development charges (also commonly referred to as *impact fees*, *system capacity charges*, *system buy-in charges*, and *system investment fee front-end charges*)—any fee that is charged by the utility service provider to provide funds to finance capital improvements necessary to serve a new customer. System development charges are designed to generate contributions from customers for financing major system construction. The theory is that these charges allow growth to pay for itself. The magnitude of the charges may range from several hundred to many thousands of dollars. There are two primary methods used to determine the amount of these charges: the system buy-in method and the incremental-cost pricing method.

system buy-in method—the fee is related to the equity embedded in existing or new systems required to serve new customers and is based on the premise that new customers are entitled to water at the same prices charged to existing customers.

incremental-cost pricing method—the fee is related to the change in total cost resulting from a change in capacity of existing or future systems required to serve the new customer (including related operating costs) and is based on calculating the addition to total cost resulting from the incremental cost of capacity (= increase in capacity divided by increase in output, for a specific time period).

extension fees—the costs of the line extensions or capacity in existing lines that will be used to transport utility service to the new customer. The costs of extension fees may include any related engineering fees and the cost of financing the extension as applicable.

Table 2 provides information concerning the different types of utility service providers in the state and the jurisdiction we have over their connection fees in case a dispute or question arises with another utility service provider.

Table 2. Does the TCEQ Have Jurisdiction over Your Connection Fees?

| Type of Utility | Tap Fee? | Deposit? | System Development Charge? | Extension Fee? |
|--------------------------|----------|----------|----------------------------|----------------------------|
| Investor-owned utility | yes | yes | yes | yes |
| Water supply corporation | no | no | in some cases ¹ | in some cases ¹ |
| Water district | no | no | no ² | no |
| City or county | no | no | no | no |

¹ Developers or new customers can appeal the costs for a new connection from a nonprofit water supply corporation.

² The TCEQ sets impact fees for water districts only if the impact fee is more than three times the district's tap fee.

We set cost-based connection fees for utilities over which we have the related jurisdiction. System development charges and extension fees have the most impact on new development. In the past, many service providers have taken on debt to fund infrastructure for growth; however, in the last twenty years or so there has been a large increase in the number of water and sewer service providers that charge system development charges and extension fees to cover new infrastructure needs. Water and sewer service providers now tend to require developers to pay for the infrastructure instead of taking on additional debt that would increase customer rates or taxes.

These connection fees are start-up costs that should be covered in the lot sales. You may find that these fees are greater than the short-term cost to install a small system that would serve only the new proposed subdivision. However, you should also consider the long-term costs and obligations associated with operating the system when you make your decision.

Depending on the service provider's extension policy, you may be able to recover some, if not all, of these costs through the following methods. You must factor any money you can recover through these methods into your cost calculations.

- ! **Line extension refund contract**—allows reimbursement to the developer of the full cost of the main extension from user charge revenues generated from customers which are served from the main extension (time limited).
- ! **Contribution of the cost** of the size of the main required to serve the developer's subdivision, with the service provider paying the costs for any up-sizing of the main extension which may be required to serve anticipated future customer growth in the area beyond that in the developer's current needs.
- ! **Up-sizing costs refunded to the developer** by establishing a "benefit area." As additional customers or subdivisions in this benefit area connect to the main extension, the original developer can be reimbursed for the prorated share of the up-sizing costs attributable to the additional connections.

Time Frame for Receiving Service

A neighboring service provider may be willing to provide service to your development, but may not be able to do so immediately. You may consider the economic impact of such a delay in providing service.

For example, the existing service provider may have to increase system capacity to be able to meet the demands of your new system, may need to obtain necessary financing, or may already have a prioritized schedule for construction or providing service to other applicants.

Delays in obtaining service may result in delays in certain phases of your construction, depending on the projected construction schedule. To the extent that there are delays in construction, there is likely to be an increase in the overall cost of your project. If such a delay affects your development, you must demonstrate how the delays in construction will result in

additional project costs. These costs would then be compared to the estimated projected value of the project at full buildout.

Impact on Sales

As the cost of regionalization increases, it is necessary to look at the impact on the development in an area. These costs may be passed on to existing customers and property owners through increases in lot prices, water and wastewater rates, ad valorem taxes, or all three.

Determining Projected Value of Development

The projected value of the development includes the estimated value at buildout of all lots, homes, commercial and industrial improvements, developed reserves, and undeveloped land, assuming the installation of a stand-alone system.

Use present-day unit values to determine the current value of all existing property and the value that will be added by future improvements to the property. The development should include all property to be served by the proposed new system.

Factor 2: Consider Affordability of Rates

The issue of rate affordability considers the consumers' ability to pay. Even if your rates are reasonable according to your costs, your customers won't be able to support the cost of the water if those cost-based rates are unaffordable. To propose an exception to regionalization due to unaffordable rates from the existing provider, you must meet **both** Criterion 1 and Criterion 2 discussed below. However, our staff may review additional factors in determining rate affordability.

Criterion 1: Rates resulting from regionalization are not affordable

To determine whether rates are unaffordable, we must calculate a "household cost factor" as set forth in a TWDB rule [31 TAC §371.24(b)]. If regionalization results in rates with a household cost factor greater than 1 percent for water service or a combined household cost factor greater than 2 percent for water and sewer service, then the rates resulting from regionalization may not be affordable.

The consumption level used in the rate calculation is based on per capita indoor water use.

The household cost factor (for areas charged for water service only) and the combined household cost factor (for areas charged for both water and sewer services) are calculated as follows:

Household cost factor (if charging for water services only)

If you are charging for water services only, follow these five steps to calculate the household cost factor:

1. Calculate the average monthly household usage:

$$\text{average number of persons per household} \times 2,325 \text{ gallons} = \text{average monthly household usage}$$

2. Calculate a monthly bill based on this usage and your rate structure.

3. Multiply this monthly bill by 12 to get the average yearly water bill.

4. Multiply the adjusted median household income (AMHI) for your area for 2000 by the Texas consumer price index (CPI) for last year. Divide this value by the Texas CPI for 2000 to get a current value for the AMHI:

$$\frac{(\text{AMHI for 2000}) \times (\text{last year's Texas CPI})}{\text{Texas CPI for 2000}} = \text{current AMHI}$$

5. Add the average yearly water bill to the average cost of any taxes, surcharges, or other fees you plan to use to subsidize your system. Divide this value by the current AMHI to get the household cost factor:

$$\frac{\text{average yearly water bill} + \text{average other fees}}{\text{current AMHI}} = \text{household cost factor}$$

Combined household cost factor (if charging for both water and sewer service)

If you are charging for both water and sewer service, follow these steps to calculate the household cost factor:

1. Calculate the average yearly water bill and the AMHI as shown under "Household cost factor" above.

2. Calculate the average monthly household usage:

$$\text{average number of persons per household} \times 1,279 \text{ gallons} = \text{average monthly household usage}$$

3. Calculate a monthly bill based on this usage and your rate structure.

4. Multiply this monthly bill by 12 to get the average yearly sewer bill.

5. Add the average yearly water bill to the average yearly sewer bill and any taxes, surcharges, and other fees you plan to use to subsidize your system. Divide this total by the AMHI of the area to be served:

$$\frac{\text{avg. yearly water bill} + \text{avg. yearly sewer bill} + \text{other fees}}{\text{current AMHI}} = \text{household cost factor}$$

Criterion 2: Rates of a stand-alone system would be lower than the (unaffordable) rates of a regionalized system

Under this criterion, you must calculate the rates that will be necessary to fully recover the costs of the proposed new water or sewer system. If the rates of the proposed system are higher than the current rates of the existing provider, we will presume that the rates of the existing provider are affordable. Under these circumstances, we will not consider your case to be an exception to this policy (even if the household cost factor shows the rates of the existing provider are unaffordable).

To demonstrate that this exception exists, you must show that the rates of the proposed new system are affordable *and* that the rates of the regionalized system are not affordable (see Criterion 1 on page 22).

Factor 3: Consider Capabilities of Existing System

An analysis of financial, managerial, and technical capabilities refers to whether the existing system has the financial resources to fund improvements that provide the service over the long term, the managerial resources to support operations and plan for emergencies, and the technical expertise to provide consistent service in compliance with our rules.

Here we list factors to consider in determining financial, managerial, and technical capabilities of the existing system. We will also consider other factors as appropriate.

Features That Can Indicate Financial Capability

- ! Rates are reviewed on a regular basis.
- ! Rate structure is appropriate to customer base.
- ! Debt coverage ratio is adequate.
- ! System is current on debt payments.
- ! All fees to regulatory agencies and laboratories paid on a timely basis.
- ! System has appropriate insurance coverage.
- ! Annual audit is conducted (if system is a public entity or water supply corporation).
- ! System has operating reserve accounts or access to funds as needed.

- ! System has adequate working capital ratio.
- ! System has a high rate of collection of customer accounts.
- ! System has written policies for collection and termination of service.
- ! Collection policies are enforced.
- ! System has low number of disconnects due to failure to pay bill.

Features That Can Indicate Managerial Capability

- ! System is aware of type of organization it is and has legal authority to operate.
- ! System has an operating budget.
- ! System has written operating policies.
- ! Customers have access to water system personnel at all times in case of emergency.
- ! Records are maintained and updated on a regular basis.
- ! Budget is used to determine rates.
- ! System has adequate water supply.
- ! System has written emergency plans.
- ! System has conveyable title to water-producing assets.
- ! Governing board is able to conduct meetings and make decisions (that is, a quorum is usually present, and there is a majority vote for most major operating decisions).
- ! Every connection is metered.
- ! Customers are billed on consistent billing cycles based on meter readings.
- ! System owners or board has current CCN (if required).
- ! System has an approved drought contingency plan.
- ! System has an employee handbook or policies.

Features That Can Indicate Technical Capability

- ! Licensed operator is on site or available to operate the system.
- ! All operators are licensed.
- ! Operators have the appropriate certifications for the size of the system.
- ! System staff can identify oldest piece of equipment and the most vulnerable part of the system.
- ! Process control and preventive maintenance are performed and documented.
- ! System calculates unaccounted-for water and does not have excessive amounts.
- ! System does not have a history of noncompliance with regulatory requirements.

Appendix B

Statutory and Regulatory Authority

This policy implements portions of Senate Bill 1 (1997) and is intended to assist our Utilities and Districts program staff and the regulated community with the implementation of the regionalization requirements in Title 30 Texas Administrative Code (30 TAC) Chapters 290 and 291. Regionalization was one of the key goals of Senate Bill 1 (1997) in order to optimize the use of existing financial, managerial, and technical resources. In addition, this policy is based on the following statutory provisions.

General Statutory Authority

The Texas Health and Safety Code, Chapter 341, Subchapter C, requires that public drinking water be free from deleterious matter and comply with the standards established by the TCEQ or the United States Environmental Protection Agency. The TCEQ may adopt and enforce rules to implement the federal Safe Drinking Water Act (42 U.S.C. Section 300f et seq.).

The Texas Water Code Chapter 13 establishes a comprehensive regulatory system that is adequate to the task of regulating retail public utilities to ensure that rates, operations, and services are just and reasonable to the consumers and to the retail public utilities.

Specific Authority

Public Water Systems

Section 341.0315(a)–(d) of the Texas Health and Safety Code, relating to public drinking water supply system requirements, requires that:

- (a) To preserve the public health, safety, and welfare, the commission shall ensure that public drinking water supply systems:
 - (1) supply safe drinking water in adequate quantities;
 - (2) are financially stable; and
 - (3) are technically sound.
- (b) The commission shall encourage and promote the development and use of regional and areawide drinking water supply systems.
- (c) Each public drinking water supply system shall provide an adequate and safe drinking water supply. The supply must meet the requirements of Section 341.031 and commission rules.

- (d) The commission shall consider compliance history in determining issuance of new permits, renewal permits, and permit amendments for a public drinking water system.

Texas Health and Safety Code § 341.035 requires that before constructing a new system a person submit plans and specifications and, with certain exceptions, a business plan that demonstrates that the owner or operator of the proposed system has available the financial, managerial, and technical capability to ensure future operation of the system in accordance with applicable laws and rules. The TCEQ may order the prospective owner or operator of the system to provide adequate financial assurance of ability to operate the system in accordance with applicable laws and rules, in the form of a bond or as specified by the commission, unless the executive director finds that the business plan demonstrates adequate financial capability.

Title 30 TAC § 290.39 ensures that regionalization and area-wide options are fully considered; ensures the inclusion of all data essential for comprehensive consideration of the contemplated project, or improvements, additions, alterations or changes; establishes minimum standardized public health design criteria in compliance with existing state statutes and in accordance with good public health engineering practices; and requires that minimum acceptable financial, managerial, technical and operating practices are specified to ensure that systems are properly operated to produce and distribute safe, potable water.

Water and Sewer CCNs

Texas Water Code § 13.241 requires that an applicant for a CCN demonstrate that it possesses the financial, managerial, and technical capability to provide continuous and adequate service and also requires that an applicant for a new CCN for a physically separate water or sewer system demonstrate that regionalization or consolidation with another retail public utility is not economically feasible.

Texas Water Code § 13.246 specifies the factors to be considered by the commission concerning CCN notice and hearing and CCN issuance or refusal.

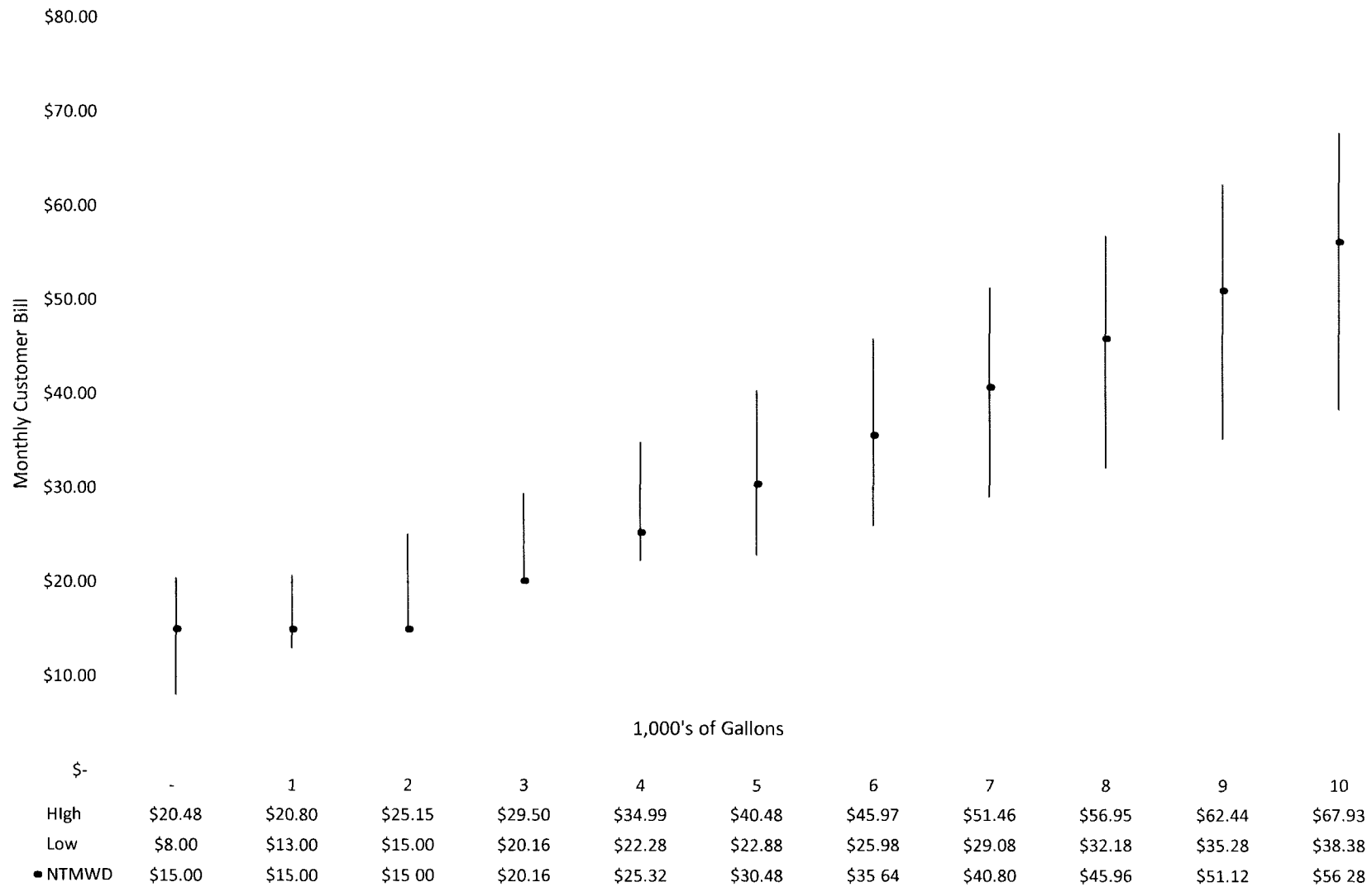
Texas Water Code § 13.253 requires that a CCN holder located in an affected county that has not been able to provide continuous and adequate service obtain service from another consenting utility service provider. Title 30 TAC §291.102(a) provides that the TCEQ must ensure that an applicant possesses financial, managerial, and technical capability to provide continuous and adequate service.

Title 30 TAC § 291.102(b) requires that where a new CCN is being issued for an area which would require construction of a physically separate water or sewer system, the applicant must demonstrate that regionalization or consolidation with another retail public utility is not economically feasible.

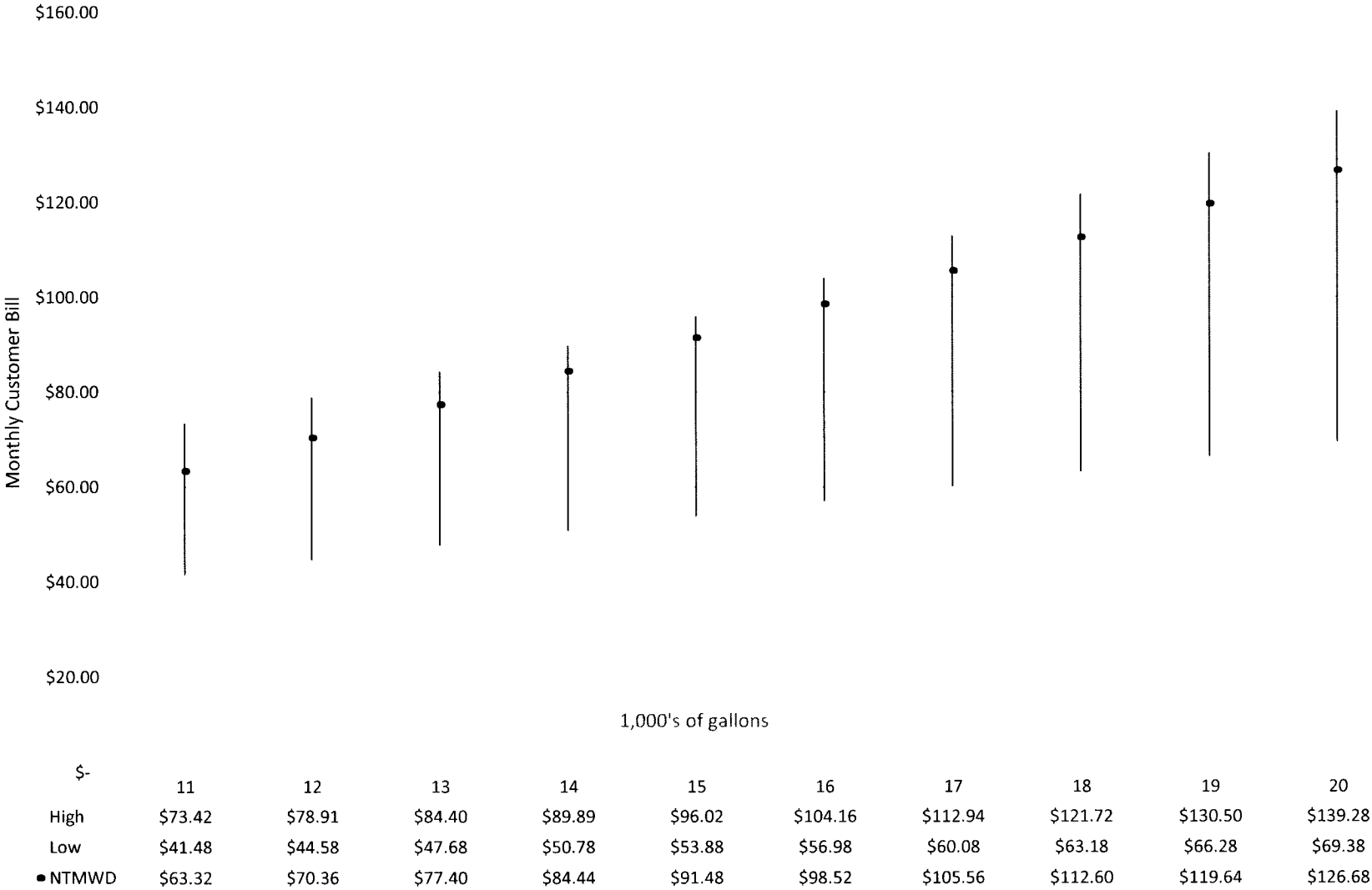
Title 30 TAC § 291.102(c) requires that the TCEQ consider the following in considering whether to grant a CCN:

- (1) the adequacy of service currently provided to the requested area;
- (2) the need for additional service in the requested area;
- (3) the effect of the granting of a certificate on the recipient of the certificate and on any retail public utility of the same kind already serving the proximate area;
- (4) the ability of the applicant to provide adequate service;
- (5) the feasibility of obtaining service from an adjacent retail public utility;
- (6) the financial stability of the applicant, including, if applicable, the adequacy of the applicant's debt-equity ratio;
- (7) environmental integrity; and
- (8) the probable improvement in service or lowering of cost to consumers in that area.

Comparison of Monthly Residential Customer Bill 0 - 10,000 gallons



Comparison of Monthly Residential Customer Bill
11,000 - 20,000



| NTMWD ⁽¹⁾ | | Garland ⁽²⁾ | | Mesquite ⁽³⁾ | | Plano ⁽⁴⁾ | | Richardson ⁽⁵⁾ | |
|--------------------------------|--------------|------------------------|--------------|--------------------------------|--------------|--------------------------------|--------------|---------------------------|--------------|
| Minimum Charge (0 - 2,000 gal) | | Minimum Charge | | Minimum Charge (0 - 1,000 gal) | | Minimum Charge (0 - 1,000 gal) | | Minimum Charge | |
| \$ | 15.00 | | 16.45 | \$ | 13.00 | \$ | 20.48 | \$ | 8.00 |
| 2,000 - 10,000 | 5.16 | 0 - 3,000 | 4.35 | 1,000 - 5,000 | 5.53 | 1,000 - 5,000 | 0.60 | 0 - 11,000 | 5.16 |
| 10,000 - 20,000 | 7.04 | 3,000 - 15,000 | 5.49 | 5,000 - 10,000 | 5.94 | 5,000 - 20,000 | 3.10 | 11,000 - 20,000 | 5.58 |
| 20,000 + | 8.79 | 15,000 + | 8.78 | 10,000 - 50,000 | 6.24 | 20,000 - 40,000 | 6.19 | 20,000 - 40,000 | 5.82 |
| | | | | 50,000 - 70,000 | 6.53 | 40,000 + | 7.50 | 40,000 - 60,000 | 6.77 |
| | | | | 70,000 - 500,000 | 6.84 | | | 60,000 + | 7.08 |
| | | | | 500,000 + | 5.65 | | | | |
| Consumption Amt | Monthly Bill | Consumption Amt | Monthly Bill | Consumption Amt | Monthly Bill | Consumption Amt | Monthly Bill | Consumption Amt | Monthly Bill |
| - | \$ 15.00 | - | \$ 16.45 | - | \$ 13.00 | - | \$ 20.48 | - | \$ 8.00 |
| 1,000 | 15.00 | 1,000 | 20.80 | 1,000 | 13.00 | 1,000 | 20.48 | 1,000 | 13.16 |
| 2,000 | 15.00 | 2,000 | 25.15 | 2,000 | 18.53 | 2,000 | 21.08 | 2,000 | 18.32 |
| 3,000 | 20.16 | 3,000 | 29.50 | 3,000 | 24.06 | 3,000 | 21.68 | 3,000 | 23.48 |
| 4,000 | 25.32 | 4,000 | 34.99 | 4,000 | 29.59 | 4,000 | 22.28 | 4,000 | 28.64 |
| 5,000 | 30.48 | 5,000 | 40.48 | 5,000 | 35.12 | 5,000 | 22.88 | 5,000 | 33.80 |
| 6,000 | 35.64 | 6,000 | 45.97 | 6,000 | 41.06 | 6,000 | 25.98 | 6,000 | 38.96 |
| 7,000 | 40.80 | 7,000 | 51.46 | 7,000 | 47.00 | 7,000 | 29.08 | 7,000 | 44.12 |
| 8,000 | 45.96 | 8,000 | 56.95 | 8,000 | 52.94 | 8,000 | 32.18 | 8,000 | 49.28 |
| 9,000 | 51.12 | 9,000 | 62.44 | 9,000 | 58.88 | 9,000 | 35.28 | 9,000 | 54.44 |
| 10,000 | 56.28 | 10,000 | 67.93 | 10,000 | 64.82 | 10,000 | 38.38 | 10,000 | 59.60 |
| 11,000 | 63.32 | 11,000 | 73.42 | 11,000 | 71.06 | 11,000 | 41.48 | 11,000 | 64.76 |
| 12,000 | 70.36 | 12,000 | 78.91 | 12,000 | 77.30 | 12,000 | 44.58 | 12,000 | 70.34 |
| 13,000 | 77.40 | 13,000 | 84.40 | 13,000 | 83.54 | 13,000 | 47.68 | 13,000 | 75.92 |
| 14,000 | 84.44 | 14,000 | 89.89 | 14,000 | 89.78 | 14,000 | 50.78 | 14,000 | 81.50 |
| 15,000 | 91.48 | 15,000 | 95.38 | 15,000 | 96.02 | 15,000 | 53.88 | 15,000 | 87.08 |
| 16,000 | 98.52 | 16,000 | 104.16 | 16,000 | 102.26 | 16,000 | 56.98 | 16,000 | 92.66 |
| 17,000 | 105.56 | 17,000 | 112.94 | 17,000 | 108.50 | 17,000 | 60.08 | 17,000 | 98.24 |
| 18,000 | 112.60 | 18,000 | 121.72 | 18,000 | 114.74 | 18,000 | 63.18 | 18,000 | 103.82 |
| 19,000 | 119.64 | 19,000 | 130.50 | 19,000 | 120.98 | 19,000 | 66.28 | 19,000 | 109.40 |
| 20,000 | 126.68 | 20,000 | 139.28 | 20,000 | 127.22 | 20,000 | 69.38 | 20,000 | 114.98 |

(1) Supplemental Response to Cities 1-39 (Attachment), Rates Effective Through 9/30/17

(2) Pet. Cities Response to Frisco First RFI, RFI 1-15, 01_Garland_VOL 01_Q1-15 Wtr Rate Ordinances 1988-2018 pdf, Page 232, Rates Effective 10/1/2016

(3) Pet. Cities Response to Frisco First RFI, RFI 1-15 Attachment, Page 55 - Ordinance No. 4446, Rates Effective 10/1/2016

(4) Pet. Cities Response to Frisco First RFI, RFI 1-15 Attachment, Page 93 - Rates Effective 11/1/2016

(5) Pet. Cities Response to Frisco First RFI, RFI 1-15 Attachment, Page 123, Rates Effective 11/1/2016

Exhibit CE-17

Comparison of Annual Minimum to Actual Usage
City of Allen

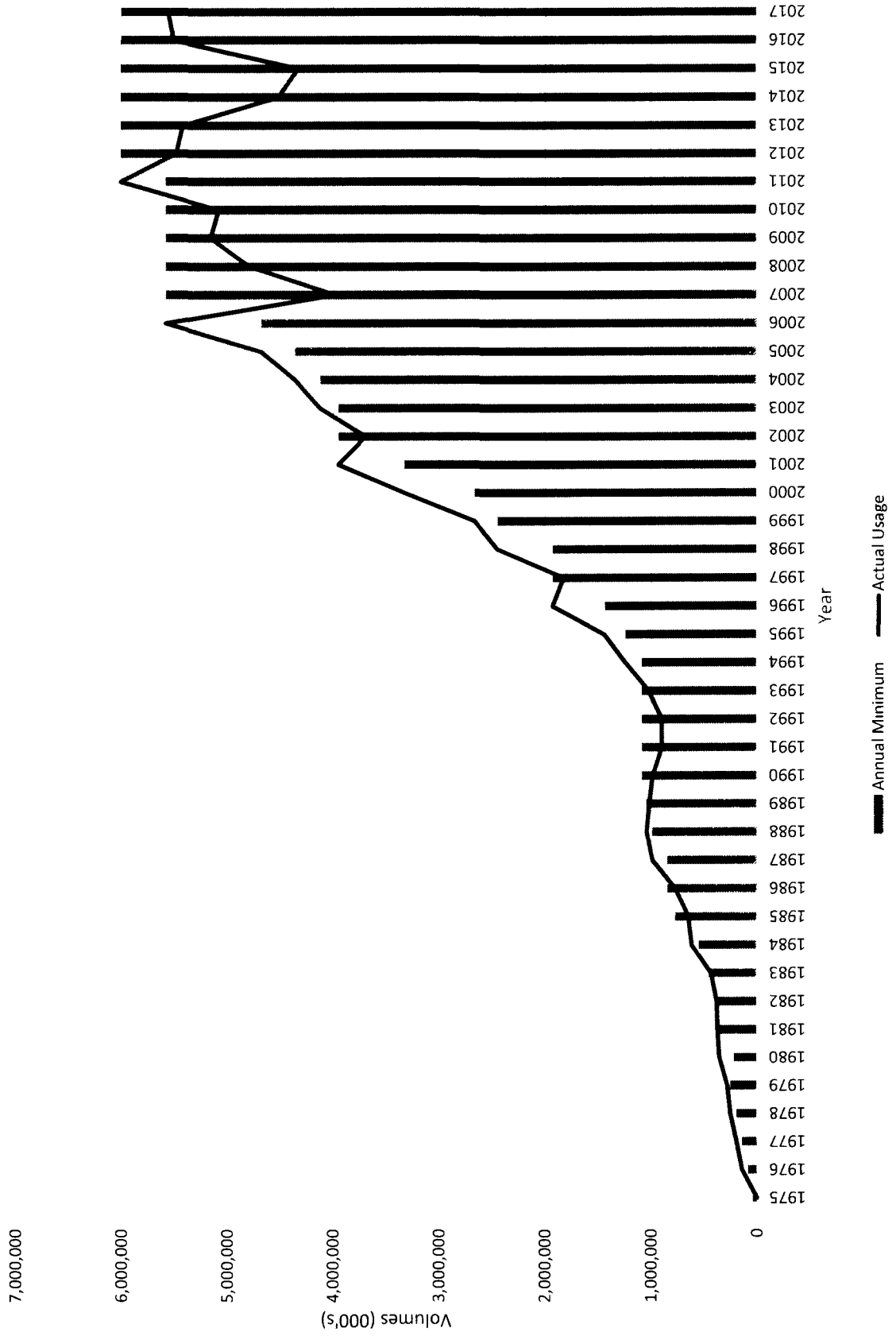
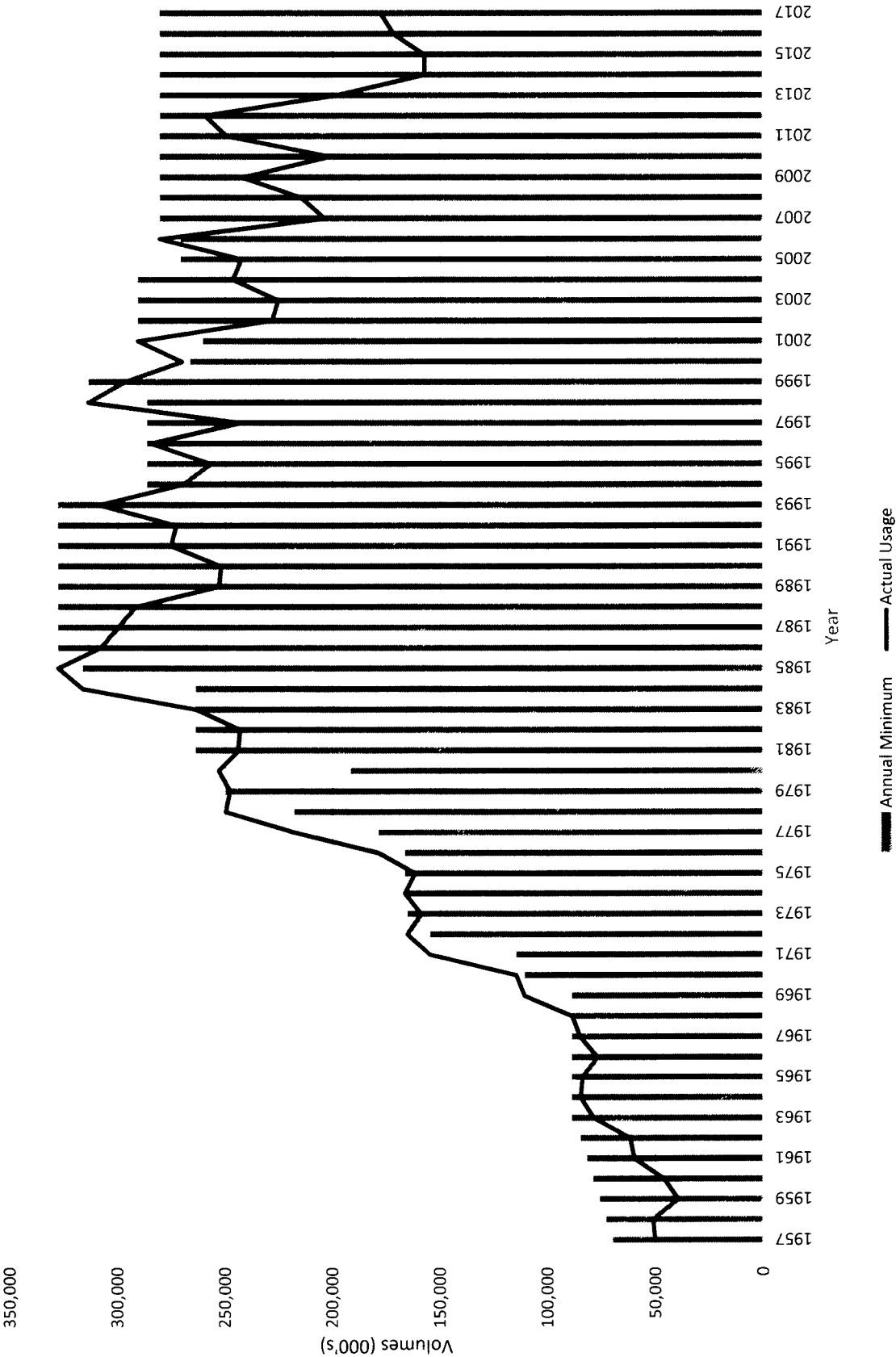
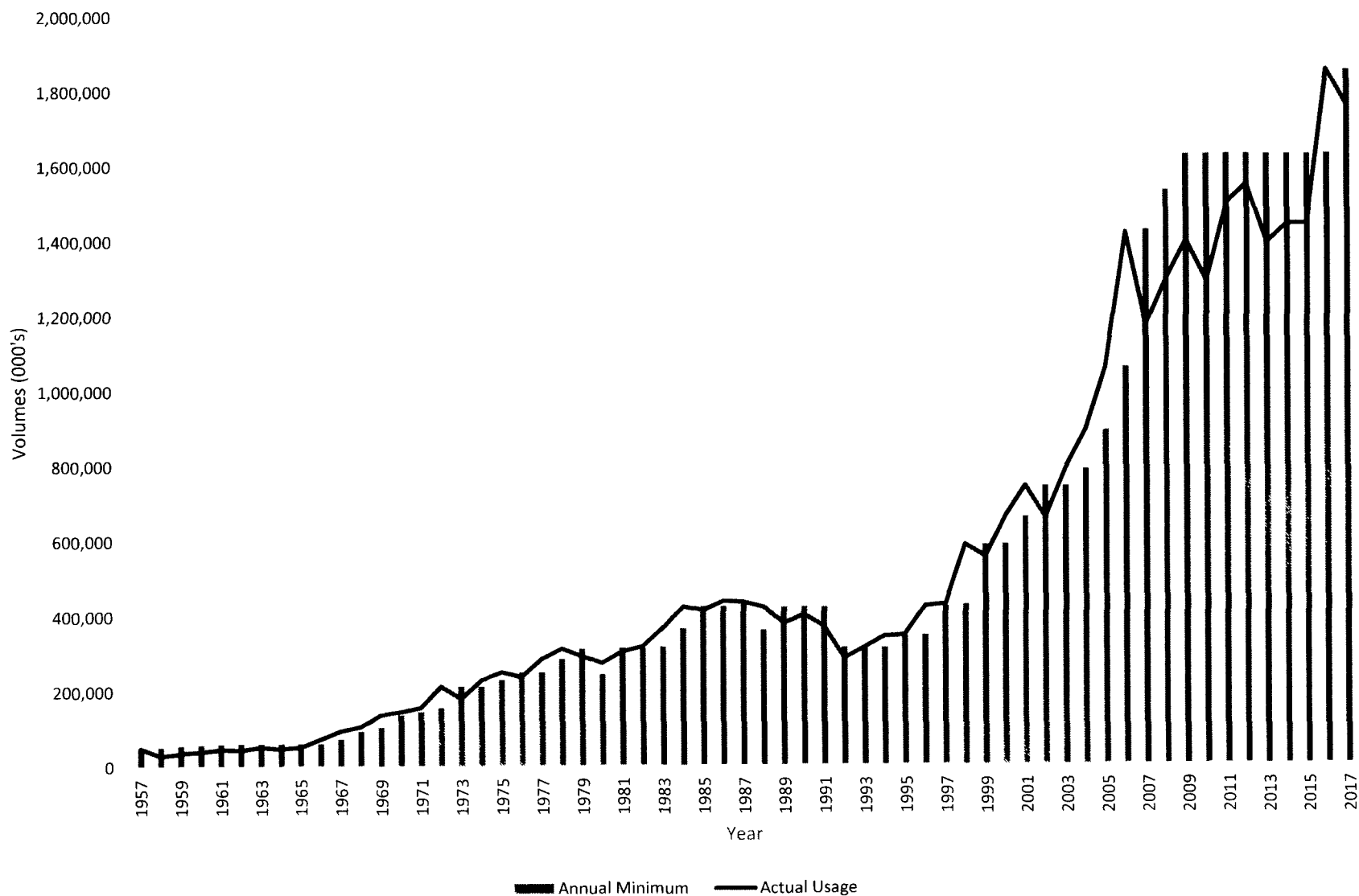


Exhibit CE-17

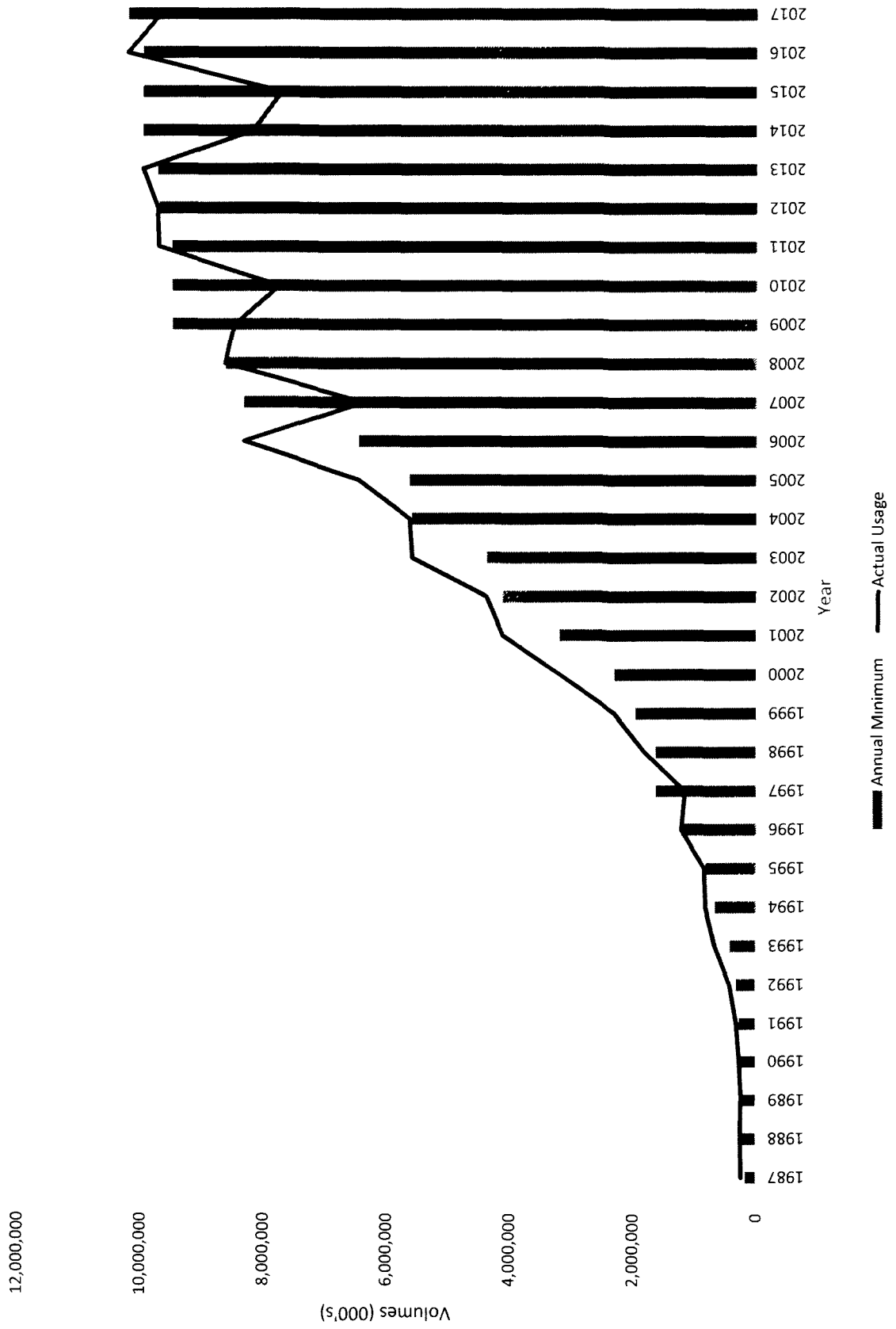
Comparison of Annual Minimum to Actual Usage
City of Farmersville



Comparison of Annual Minimum to Actual Usage City of Forney



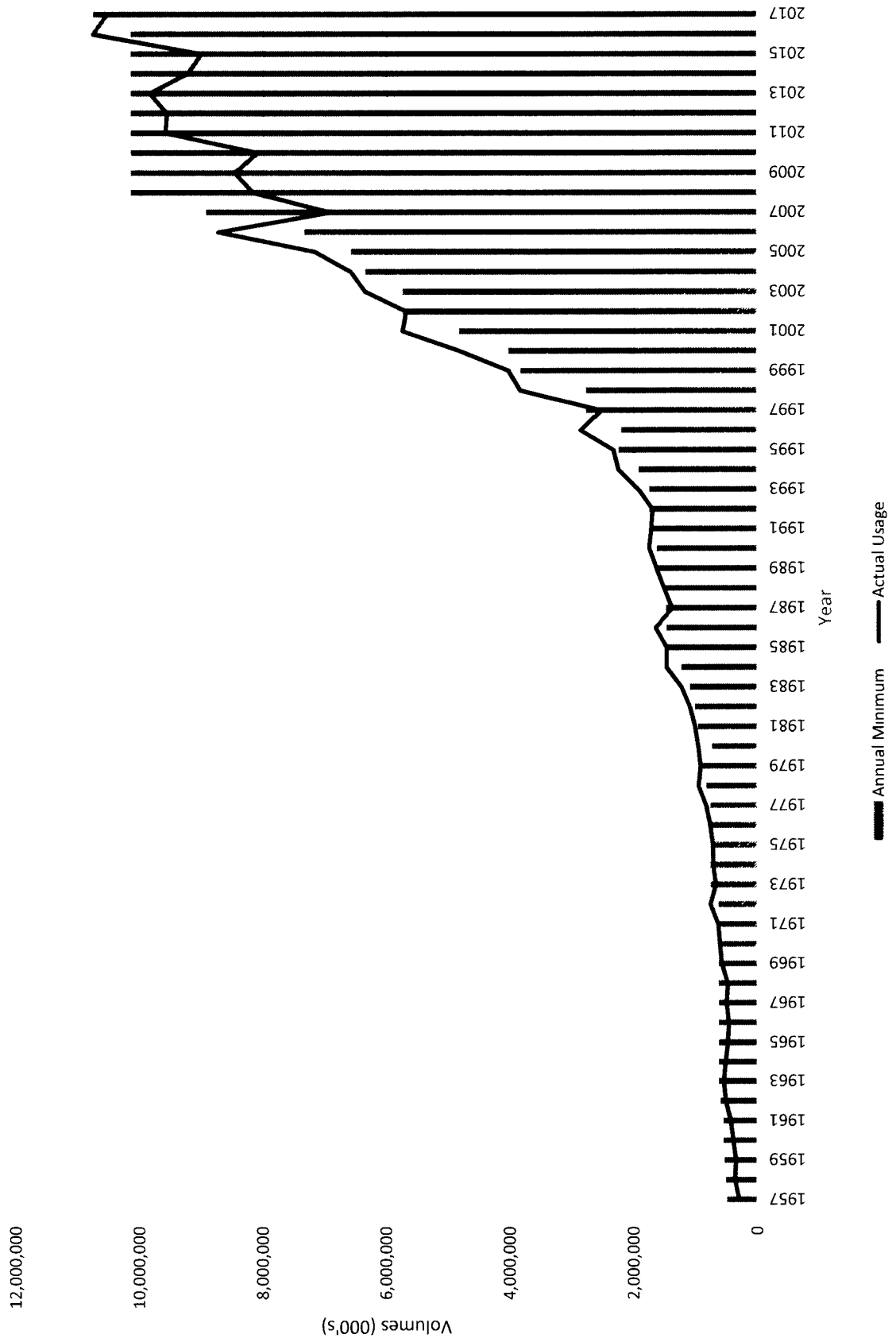
Comparison of Annual Minimum to Actual Usage
City of Frisco



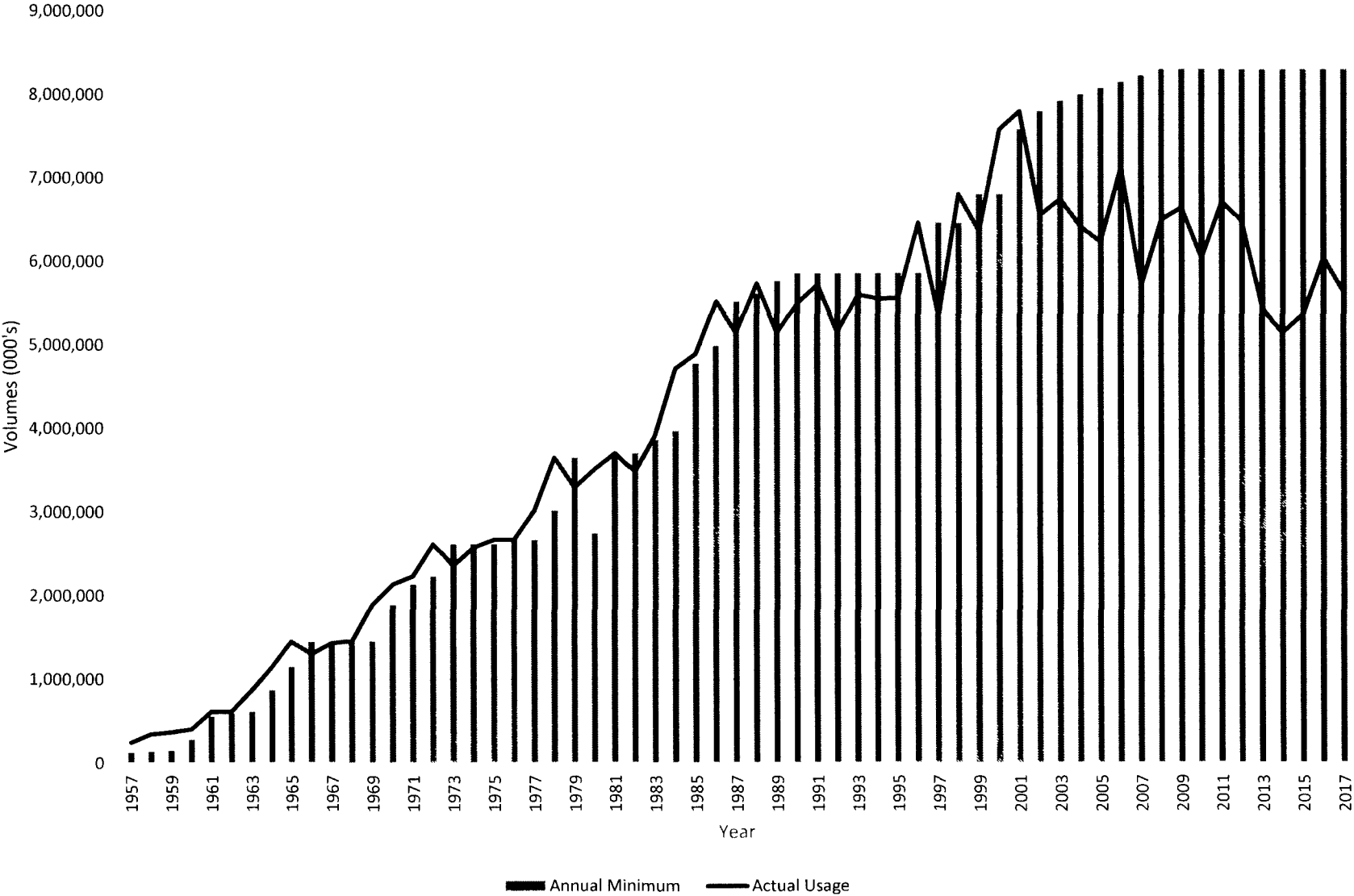
Comparison of Annual Minimum to Actual Usage
City of Garland



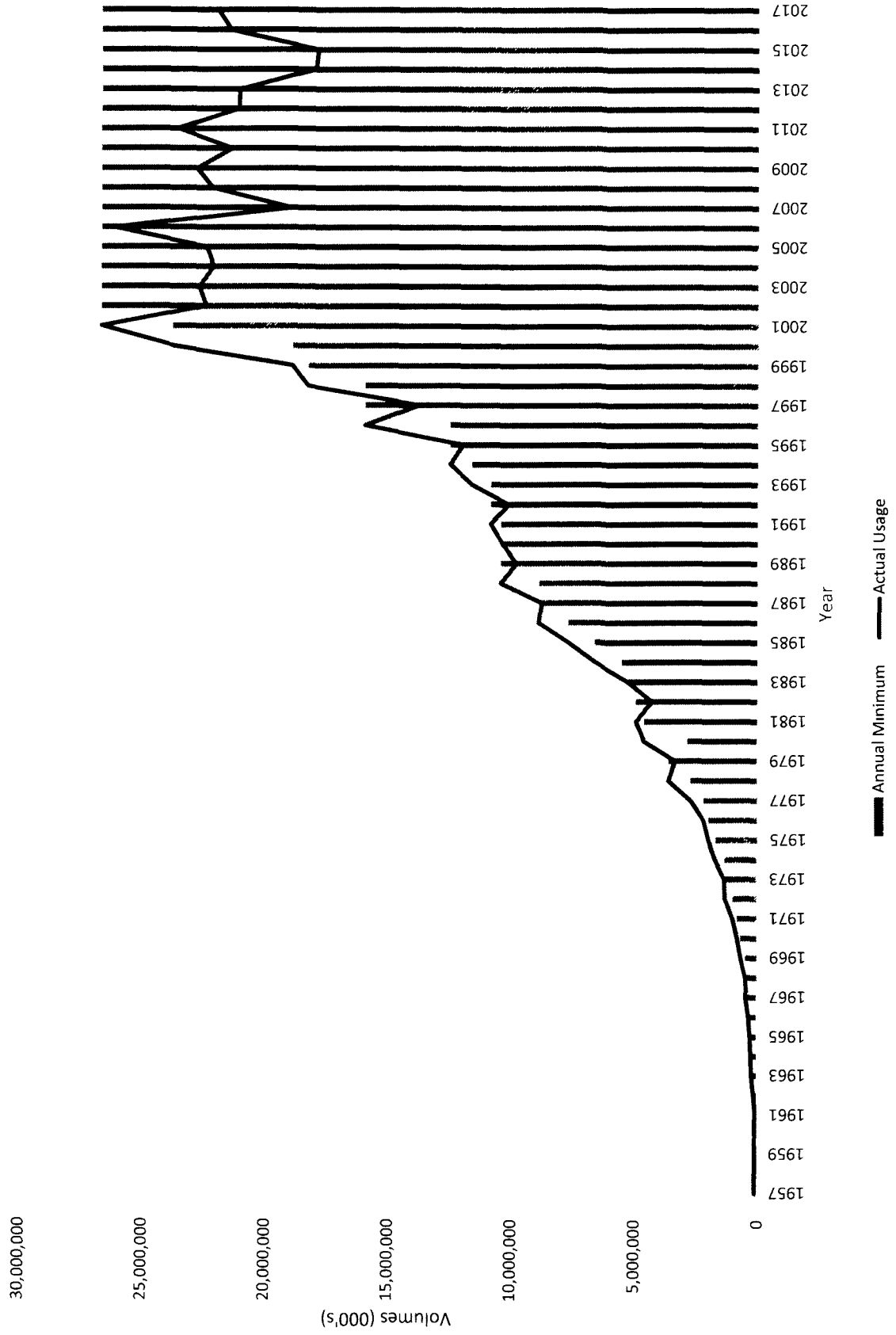
Comparison of Annual Minimum to Actual Usage
City of McKinney



Comparison of Annual Minimum to Actual Usage
City of Mesquite



Comparison of Annual Minimum to Actual Usage
City of Plano



Comparison of Annual Minimum to Actual Usage
City of Princeton

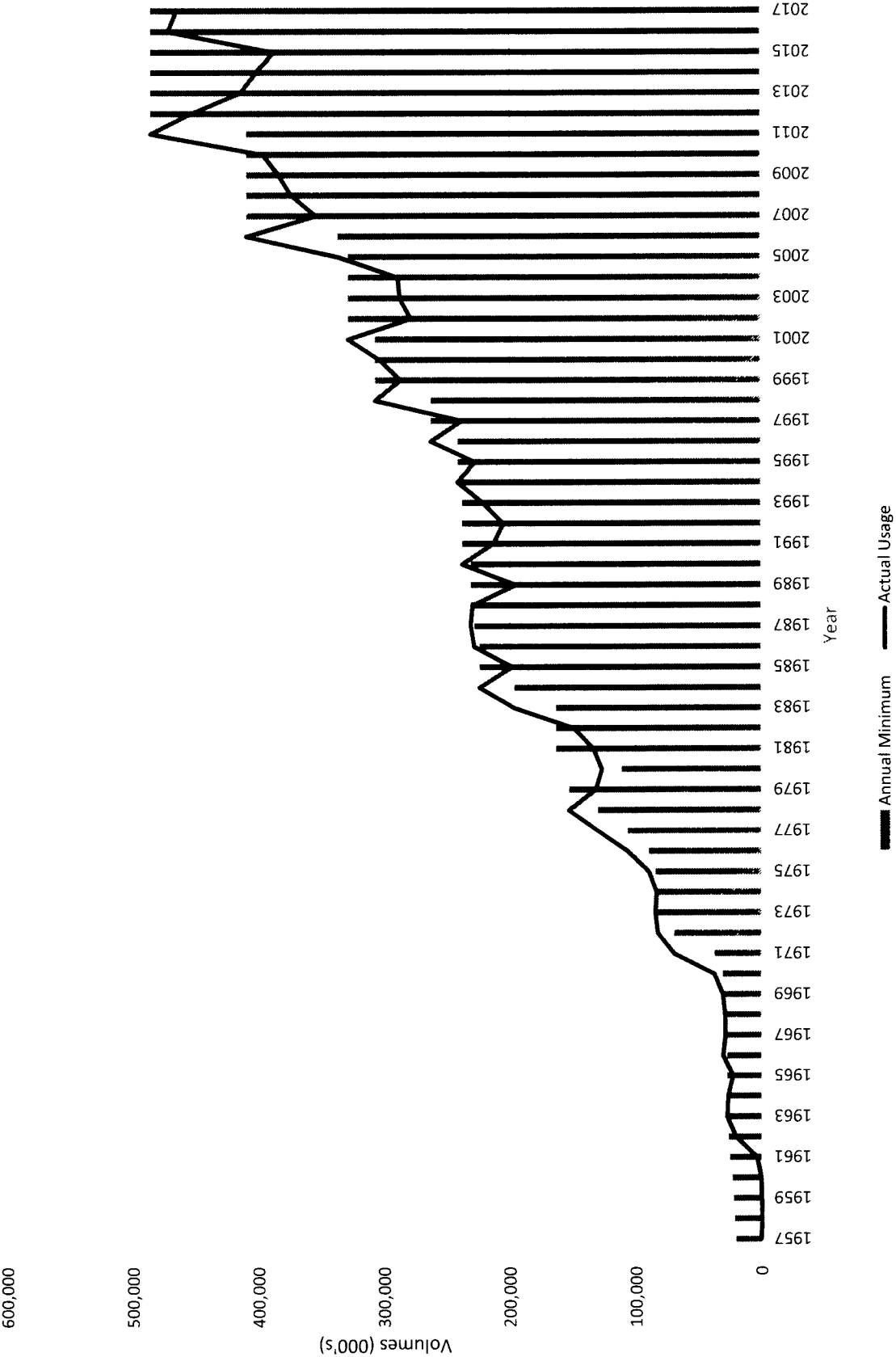
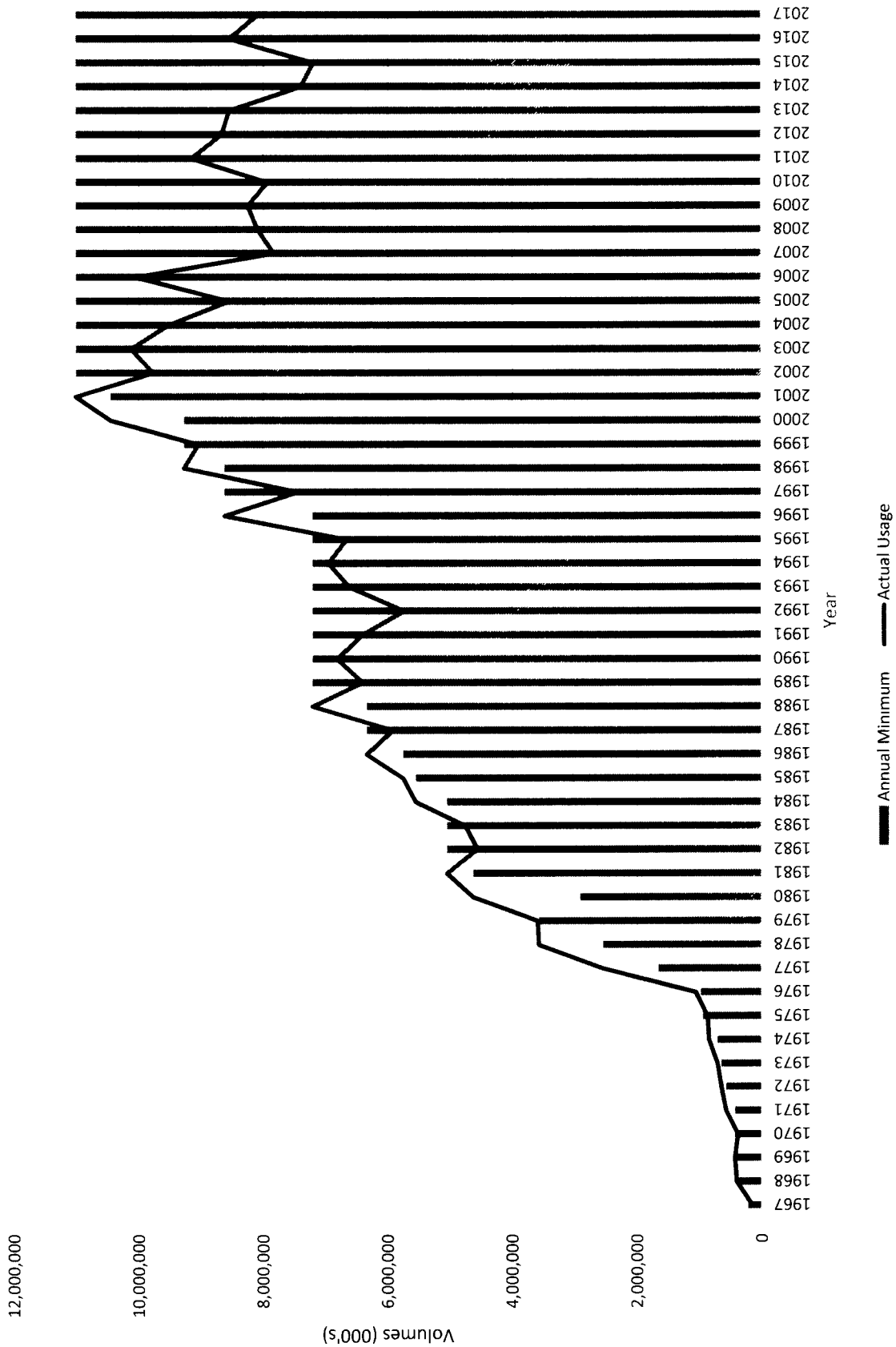
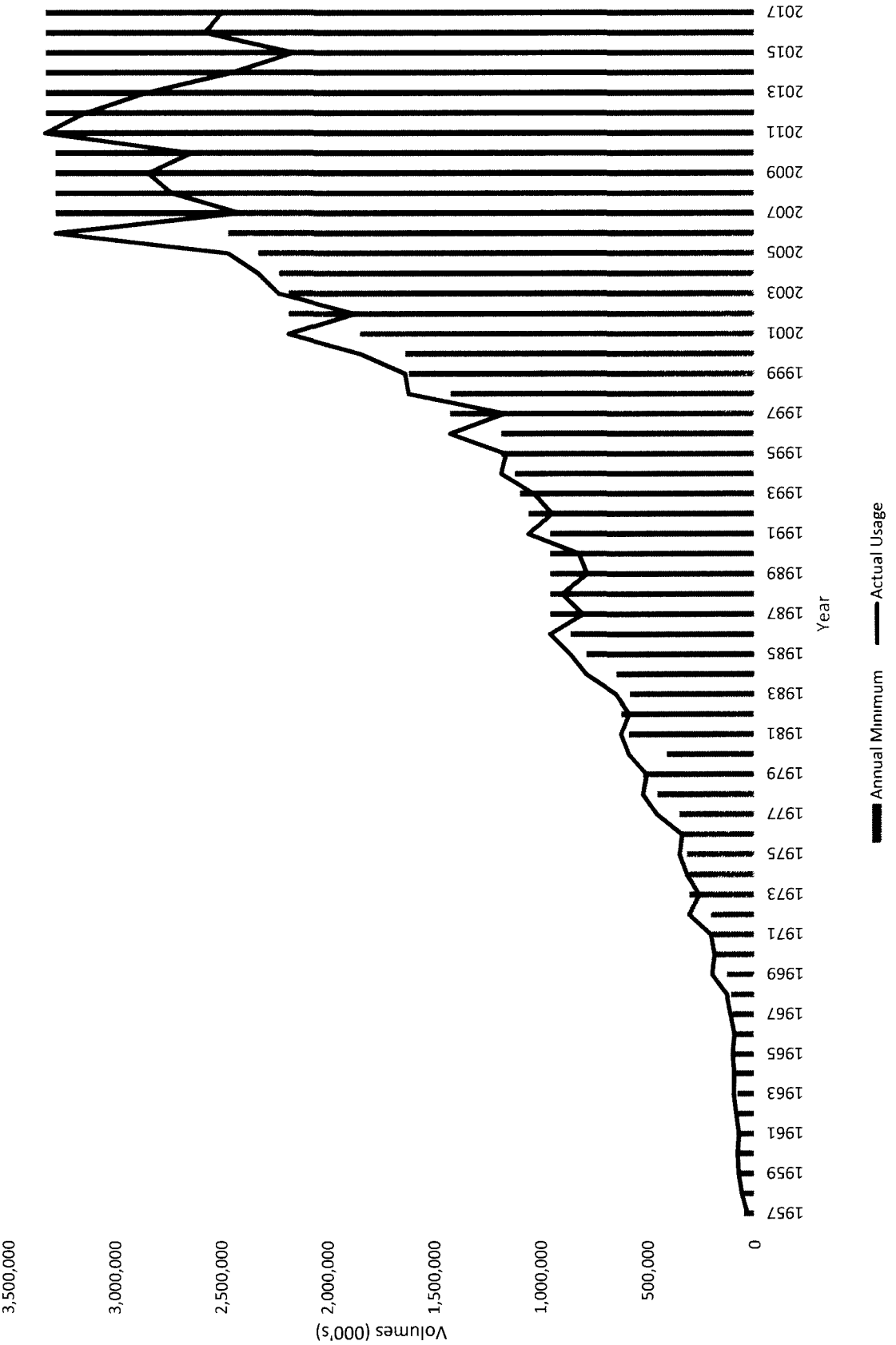


Exhibit CE-17

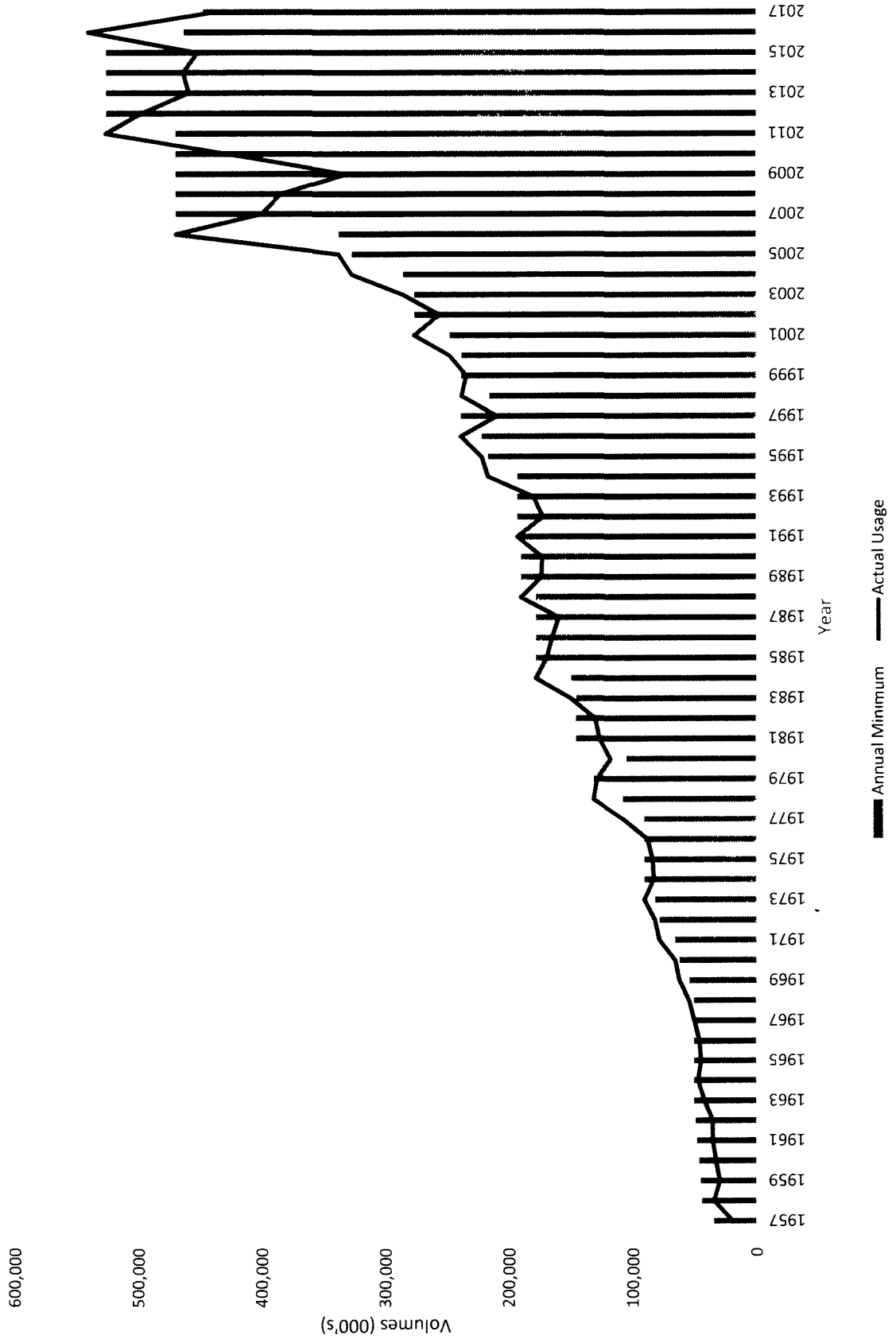
Comparison of Annual Minimum to Actual Usage
City of Richardson



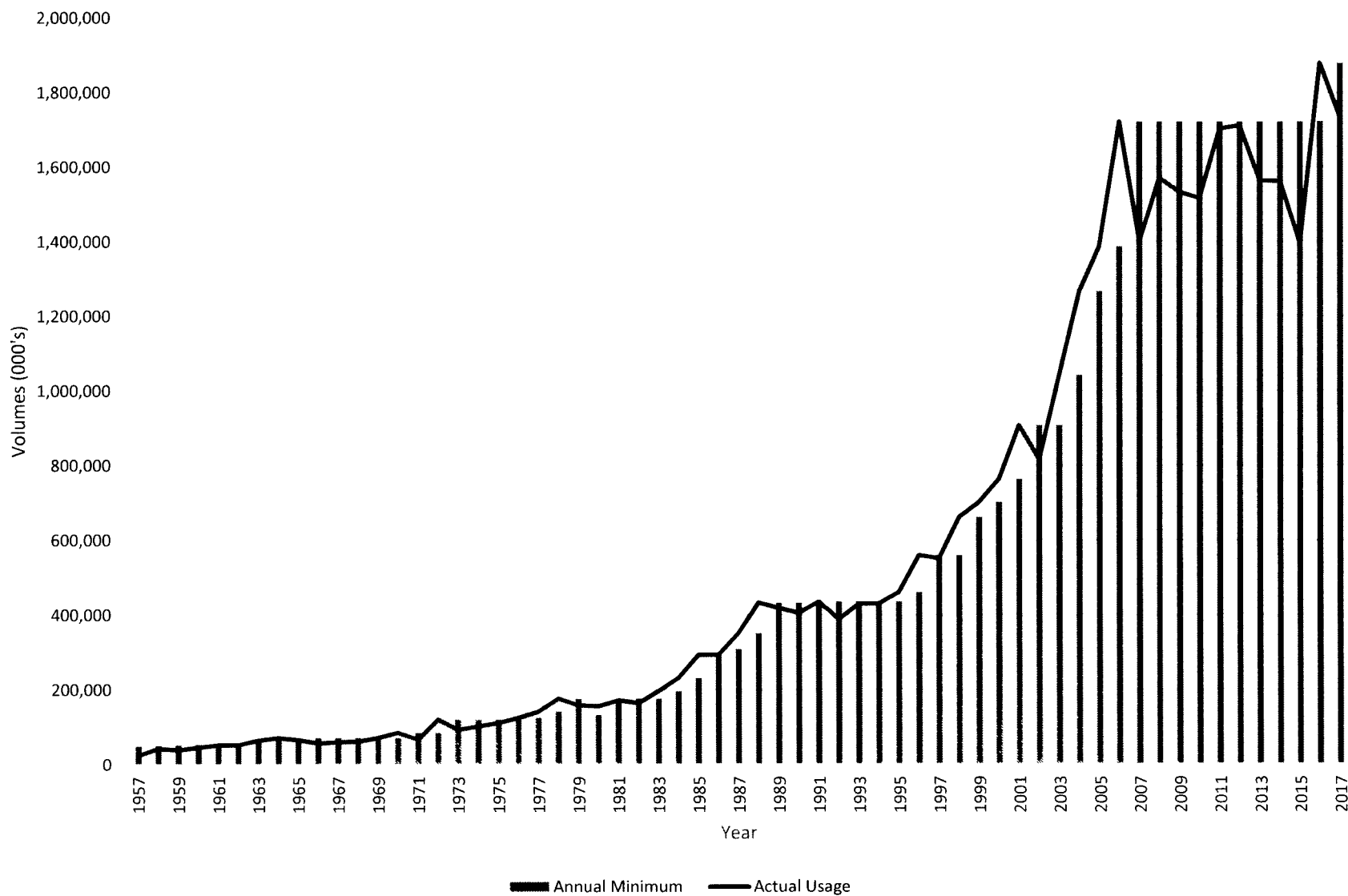
Comparison of Annual Minimum to Actual Usage
City of Rockwall



Comparison of Annual Minimum to Actual Usage
City of Royse City



Comparison of Annual Minimum to Actual Usage
City of Wylie



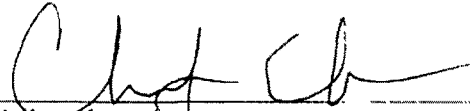
STATE OF TEXAS §
 §
COUNTY OF DALLAS §

AFFIDAVIT OF CHRISTOPHER EKRUT

BEFORE ME, the undersigned authority, on this day personally appeared Christopher Ekrut, who having been placed under oath by me did depose as follows:

1. "My name is Christopher Ekrut. I am of sound mind and capable of making this affidavit. The facts stated herein are true and correct based on my personal knowledge. My current position is partner in NewGen Strategies & Solutions, LLC.
2. I have prepared the foregoing direct testimony and the information contained in this document is true and correct to the best of my knowledge."


Further affiant sayeth not.



Christopher Ekrut

15th SUBSCRIBED AND SWORN TO BEFORE ME by the said Christopher Ekrut on this
day of February, 2018.





Notary Public, State of Texas

My commission expires: 9/12/2018