

Charges by the Corporations to amortize the Bonds. A true copy is attached hereto and incorporated herein by reference as Exhibit "A."

1.05. Bond Resolution: Any of the resolutions of the Authority's Board of Directors authorizing the issuance of Bonds in conjunction with the Lake Fork Reservoir Project. True copies of the existing six resolutions are attached hereto and incorporated herein by reference as Exhibits "B", "C", "D", "E", "F" and "G", respectively, with the consolidated schedule of Debt Service Requirements attached as Exhibit "H."

1.06. Bonds: Any revenue bonds of the Authority authorized, issued, and delivered to finance the acquisition and construction of any portion of the Facilities pursuant to the terms of the Bond Amortization Contract, the Facilities Agreement and this Agreement, including initial issues or series of bonds and completion bonds, and any bonds issued to repair, enlarge, extend, or otherwise improve the Facilities, together with any bonds issued to refund any of the foregoing bonds.

1.07. Consulting Engineers: Any engineering firm or company as may be agreed upon between the City and the Authority.

1.08. Facilities: The water supply facilities consisting of the lands, easements, rights-of-way, dam, reservoir, and related facilities to be or presently acquired, constructed, and owned by the Authority on or adjacent to Lake Fork Creek, a tributary of the Sabine River, in Wood, Rains, and Hopkins Counties, Texas, such facilities constructed substantially in accordance with the plan and report prepared for presentation at public hearing before the Texas Water Rights Commission, entitled "Lake Fork Dam and Reservoir on Lake Fork Creek, Sabine River Basin," dated June, 1974, by URS, Inc., Consulting Engineers, Dallas, Texas, and any amendments or supplements thereto.

1.09. Facilities Agreement: The Water Supply Facilities Agreement entered into by and between the Authority and the

Corporations and TUGCO, dated February 18, 1974. A true copy is attached hereto and incorporated herein by reference as Exhibit "I."

1.10. Permits: Any and all necessary permits, licenses, orders, and other governmental approvals from any local, state, or federal agency that may now or hereafter have jurisdiction to authorize the Authority to acquire, construct, provide, operate, and maintain the Facilities, and those required to transfer Water outside of the Sabine River Basin, to transfer Water and store same in Lake Tawakoni, to change the use of the Water to Municipal and other purposes and to approve any aspect of this Water Supply Contract and Conveyance, including those required under the Rules of the Texas Water Development Board and specifically Rules No. 156.02, 50.003 - .006.

1.10(a). Permit No. 2948: The "Permit to Appropriated State Water" heretofore obtained by the Authority from the Texas Water Rights Commission, dated August 1, 1974. A true copy is attached hereto and incorporated herein by reference as Exhibit "J." Upon approval of an application by the Sabine River Authority of Texas to the Texas Water Commission for an amended or revised Permit, other than for Water to which the Authority is entitled under the terms of this Agreement, as required by this Agreement, same shall be attached hereto and marked as Exhibit "K". The amended or revised Permit shall then be recorded; provided, however, that should same not be in a recordable form, a memorandum of this Agreement shall be recorded in lieu thereof.

1.11. Phillips Contract: The Water Purchase Contract between the Authority, the Corporations (acting through TUGCO as agent) and Phillips Coal Company ("Phillips"), dated December 14, 1979, whereby Phillips may purchase up to and including 30,000 acre feet of Lake Fork Water annually, subject to the terms stated therein. A true copy of the Phillips Water Purchase Contract is attached hereto and incorporated herein by reference as Exhibit "L."

1.12. Points of Delivery: The points on the Reservoir where the City or the Corporations, as the case may be, will withdraw Water, to be agreed upon between the City or the Corporations and the Authority. The City or the Corporations, as the case may be, shall provide all works and structures at each such Point of Delivery for withdrawing Water from the Facilities, and shall be entitled to withdraw such Water in the amounts conveyed in this Agreement. The location of the Points of Delivery will be furnished to the Texas Department of Water Resources, after they are determined in accordance with this Agreement.

1.13. Reservoir: The Lake Fork Reservoir, including all lands and flowage and floodage easements acquired in connection therewith.

1.14. Section: Any subdivision of this Agreement designated by arabic numerals.

1.15. Semi-Annual Facilities Charge: Any payment which the Corporations by virtue of the Facilities Agreement and the City by virtue of this Agreement are obligated to make to amortize the Bonds pursuant to the Bond Amortization Contract.

1.16. Service Charge: The payment to be made by the Corporations by virtue of the Facilities Agreement and the City by virtue of this Agreement to the Authority to enable the Authority to pay the reasonable and necessary costs and expenses directly associated with the operation and maintenance of the Facilities.

1.17. Tenneco Option: The option granted in the agreement between the Authority and Tenneco Coal Company ("Tenneco"), dated December 19, 1979, whereby Tenneco may purchase up to and including 20,000 acre feet of Lake Fork Water annually, subject to the terms stated therein. A true copy of the Tenneco agreement is attached hereto and incorporated herein by reference as Exhibit "M."

1.18. Trust Indenture: The contract between the Authority and Republic National Bank of Dallas, Dallas, Texas, as Trustee,

dated December 1, 1974, whereby the Authority assured and pledged to the Trustee the Semi-Annual Facilities Charges, to be deposited in the Debt Service Fund created by the Bond Resolution and established in trust with the Trustee, to secure the payment of the principal of, redemption premiums, if any, and interest on the Bonds. A true copy of the Trust Indenture is attached hereto and incorporated herein by reference as Exhibit "N."

1.19. Water: Untreated water from the Facilities. The Authority shall have no duty or responsibility with respect to the treatment, quality or suitability of the Water for the City's purposes; however, the Authority agrees to use its best efforts to maintain the quality and suitability of the Water for municipal use to the extent that it has the authority and capacity to do so under the laws of the State of Texas as they presently exist or may hereafter be enacted, and in this connection, the Authority agrees that it will promulgate and enforce rules and regulations for the prevention of pollution of the Reservoir.

II. CONVEYANCE OF RIGHTS

2.01. The Sabine River Authority of Texas and the Corporations, the latter acting herein through Texas Utilities Generating Company as agent, and each acting by and through their respective authorized officials, for good and sufficient consideration, hereinafter set out in detail, the acceptance and sufficiency of which is hereby acknowledged, have GRANTED and CONVEYED, and by these presents do GRANT and CONVEY unto the City of Dallas, its successors and assigns, all rights to the use of seventy-four (74%) percent of the dependable yield of Water from Lake Fork Reservoir, not to exceed 120,000 acre feet per calendar year, for Municipal use purposes, or any other lawful use, including the right to withdraw all or any portion of said Water, and to have the consumptive use of such as is withdrawn from the Facilities. It

is intended that the water rights conveyed herein shall include all rights of the Corporations to Water under the Facilities Agreement, said Corporations having effectively exercised their option contained under Section 3.02(b) of the Facilities Agreement on November 19, 1980. However, it is expressly agreed and understood that this conveyance is subject to the terms and conditions set out in this Agreement, binding upon all parties hereto. Further provided, however, nothing herein shall prejudice the rights of any party to assert its claim with respect to any Water not covered by this Agreement.

2.02. The quantity of Water which the City shall have the right to take in accordance with the conveyance under this Article II, hereinafter also referred to as the "City's Water," shall be subject to purchases as follows, except during periods of shortages when, in order to give priority to Municipal use, (a) the Authority may, subject to approval, if necessary, of the Texas Water Commission, restrict withdrawals of Water to Phillips and Tenneco, and (b) the City may restrict withdrawals of Water to the Corporations under Section 5.15 hereinbelow:

(a) the quantity of Water actually purchased by Phillips Coal Company, not to exceed 30,000 acre feet of Water per year, in accordance with the terms and provisions of the Phillips Contract;

(b) the quantity of Water actually purchased by Tenneco Coal Company, not to exceed 20,000 acre feet of Water per year, in accordance with the terms and provisions of the Tenneco Option; and

(c) the quantity of Water actually purchased by the Corporations from the City in accordance with the terms of Article V of this Agreement, not to exceed 17,000 acre feet of Water per year.

2.03. It is specifically agreed that until November 1, 2014, or such earlier date as may be mutually agreed upon, in no event will any party hereto withdraw any Water from the Facilities if such withdrawal would cause the surface level of Water in the Facilities to be lower than 372 feet above mean sea level.

2.04. The City shall, at its own expense, acquire, construct, and provide all necessary works to provide for Water intake and withdrawal at the City's Points of Delivery to enable the City to utilize Water taken by it under this Agreement. The Authority agrees to convey at no cost to the City any necessary easements and rights-of-way over or under the Authority's lands to enable the City to withdraw, transfer and utilize such Water for its intended purposes.

2.05. The City, at its own cost and expense, shall furnish, install, operate, and maintain at the City's Points of Delivery, measuring equipment properly equipped with meters and devices of standard types for measuring accurately the quantity of Water diverted under this Agreement, with a capacity to measure, within generally accepted industry standards of accuracy, or as established by the American Water Works Association, the quantity of Water diverted. Such meters shall be calibrated annually. The City shall notify the Authority in advance of the annual meter calibration, and the Authority shall have the right to be present and witness such calibration. Such measuring equipment shall be approved by the Authority and the City, but shall remain the property of the City. During any reasonable hours, the Authority shall have access to such measuring equipment so installed. The Authority may, upon reasonable notice, at its option and non-reimbursable expense, install and maintain such measuring equipment as it deems proper to check and determine the accuracy of the City's measuring equipment.

III. EXISTING INSTRUMENTS; ASSUMPTION OF OBLIGATIONS, RIGHTS, PRIVILEGES AND BENEFITS

3.01. This Agreement and the conveyance to the City under Article II shall not be construed as a termination or rescission of any existing contract or agreement relating to Lake Fork Facilities and attached hereto as an Exhibit; and except as expressly modified

by the terms and provisions of this Agreement, relating to the obligations, rights, privileges and benefits between and among the parties hereto, the terms and provisions of the Facilities Agreement, Bond Amortization Contract, Trust Indenture and the Bond Resolutions shall remain in full force and effect. The Authority and TUGCO state, to the best of their knowledge, that with the exception of those contracts and agreements heretofore referenced and attached as Exhibits to this Agreement, and the following, there exist no other agreements affecting the right of use of Lake Fork Water in which either or both are a party:

(a) "Water Purchase Agreement" between the Authority and the Corporations (acting through TUGCO), of even date herewith, providing for the purchase of 20,000 acre feet of Water annually, and providing for payment of a proportionate share of the Service Charge, in the ratio of 20/163, such agreement attached hereto and incorporated herein by reference as Exhibit "O."

(b) "Easements Exchange Agreement" between Phillips Coal Company, on the one hand, and the Authority and the Corporations (acting through TUGCO), on the other hand, dated December 14, 1979, providing for the exchange of certain easements, including a flowage and floodage easement in and over Phillips' interests in property, and a construction and diversion easement on and across the Reservoir property, said agreement, with its attachments, attached hereto and incorporated herein by reference as Exhibit "P."

(c) "Water Supply Agreement" between the Authority and the City of Longview, Texas, dated March 5, 1975, providing for the purchase of up to 20,000 acre feet of Water annually, attached hereto and incorporated herein by reference as Exhibit "Q".

3.02. The Corporations specifically authorize the Authority to enter into this Agreement and to join in the conveyance of the City's Water herein, and agree that such conveyance to the City is not in violation of any of the terms and provisions of the Facilities Agreement, Bond Amortization Contract or any other agreements by and between the Corporations and the Authority. However, nothing contained herein shall be deemed to relieve the Corporations of any duty or obligation undertaken by the Corporations to the Authority in any of such documents, in the event

such duty or obligation is not discharged as required to be discharged by the City.

3.03. Nothing contained in this Agreement shall be construed to relieve the Corporations of any duty or limitation imposed upon them by the terms of the Facilities Agreement, the Bond Amortization Contract, or other documents affecting the Bonds or the right of the holders of the Bonds, including without limitation, payment of the Semi-Annual Facilities Charges and Service Charge, in the event the same are not paid or discharged by the City to the extent provided hereinbelow.

3.04. As between the parties hereto, TUGCO and the Corporations, in addition to the conveyance of the Corporations' water use rights under Article II above, hereby grant and assign, and the City hereby takes and assumes, all other rights, privileges, benefits and obligations of TUGCO and the Corporations under the Facilities Agreement and the Bond Amortization Contract, Exhibits "I" and "A" hereto, and the existing Phillips Water Purchase Contract, Exhibit "L" hereto, the existing Tenneco agreement, Exhibit "M" hereto, and the Easements Exchange Agreement, Exhibit "P" hereto, subject to the terms and provisions of this Agreement.

3.05. Among the obligations, rights, privileges and benefits hereby granted to and assumed by the City, subject to Article IV hereof, specific reference is made to the following:

(a) Payment of the Semi-Annual Facilities Charges, commencing October 1, 1981, in the appropriate amount and manner required by the Bond Resolution and the Bond Amortization Contract, subject to the provisions of this Agreement.

(b) Payment of the Service Charge, commencing October 1, 1981, in the appropriate amount and manner as required by the Facilities Agreement, subject, however, to the Corporations absorbing such payments as may accrue through September 30, 1981, and subject to the provisions of this Agreement. In the event the Authority sells Water (including any agreement obligating the Authority to deliver Water) during any of its fiscal years, with the exception of the sale of Water to Tenneco Coal Company under the Tenneco Option, the Authority shall pay from the proceeds of such sale, a proportionate part of the Service Charge for that fiscal year in the ratio that the volume of such Water so sold bears to 163,000 acre feet. Provided,

however, that as to the sale of Water to the City of Longview under its Contract, Exhibit "Q" hereto, the amount of the Service Charge to be paid shall be determined on the basis of Longview's minimum take or pay obligation, or the amount of Water actually taken, whichever is greater.

(c) All rights of inspection, review, consultation, participation, authorization, consent, enforcement or approval previously held by TUGCO or the Corporations under any and all instruments referenced in this Agreement and/or attached hereto as Exhibits, except as provided in Section 9.04 hereof.

(d) All rights of priority formerly held by the Corporations with regard to their rights to Water as set out in Section 3.10 of the Facilities Agreement. In this regard, and in the same fashion, all future sales of the Authority's Water shall be made subject to the City's rights to Water conveyed under this Agreement.

(e) All rights of the Corporations and TUGCO to receive notices, reports, budgets, audits and any other documents, and the right to review and approve same, as specified in all instruments referenced in this Agreement and attached hereto as Exhibits.

(f) All covenants of the Authority to TUGCO and the Corporations, including those contained under Section 6.03 of the Facilities Agreement. All such covenants shall hereafter inure to the benefit of the City.

3.06. The City's assumption of the Corporations' obligations to pay the Semi-Annual Facilities Charges and Service Charge, in accordance with the requirements of the Facilities Agreement, Bond Resolution and the Bond Amortization Contract, shall entitle the City to receive the proper credits and reductions applicable to such payments as specified under the Facilities Agreement, Bond Amortization Contract and this Agreement, as well as compliance by the Authority with their obligations under such instruments, and compliance by TUGCO and the Corporations with their obligations under this Agreement.

3.07: No provision of this Contract shall ever impose, or be construed as imposing, any liability or obligation on the part of the City to make any payments hereunder, including Facilities Charges, Service Charges, or any other charges, fees or costs

whatsoever, out of any City funds derived from taxation or funds raised or to be raised by taxation. All payments the City is obligated hereunder to make shall be payable and collectible solely from revenues derived from the City's water system, and shall constitute an operating expense thereof as provided by State law authorizing municipalities to execute water supply contracts with other public entities. Specifically, payments made by the City toward the Semi-Annual Facilities Charges and Service Charges shall be regarded as an operation and maintenance expense for purposes of computing the City's water system revenue bond coverage.

3.08. In addition to the other obligations undertaken herein by the City, the City agrees to repay to the Corporations \$1,440,998.11, representing the total of all Bond principal and Trustee's fees paid by the Corporations before execution of this Agreement. Repayment of such amount, together with simple interest at the rate of ten percent (10%) per annum from October 1, 1981, until paid, shall be made by the City to the Corporations within two (2) years from the effective date of this Agreement or within ninety (90) days from the date of issuance of the revised or amended Permit satisfactory to the parties hereto in accordance with Article IV of this Agreement, whichever occurs later.

3.09. Notwithstanding the foregoing, any Semi-Annual Facilities Charges and Service Charge falling due between October 1, 1981, and the date of issuance of the revised or amended Permit satisfactory to the parties hereto in accordance with Article IV below (hereafter called "Date of Issuance"), shall continue to be paid by the Corporations. However, for purposes of reimbursement in accordance with Article IV following said Date of Issuance, the City shall escrow in a separate account an amount equal to such payments as made by the Corporations, less the amounts falling due the City from the Corporations under the provisions of Article V of this Agreement, and will repay the Corporations the proceeds of said

account, with accrued interest at the City's rate, within ninety (90) days following said Date of Issuance. In the event this Agreement terminates in accordance with Article IV, all such escrowed amounts and accrued interest shall remain the property of the City.

IV. EFFECTIVE DATE; COMMENCEMENT OF PAYMENTS BY THE CITY

4.01. The effective date of this Water Supply Contract and Conveyance, following execution by all parties hereto, shall be October 1, 1981. However, the City's obligations to make any payments whatsoever under this Agreement, other than to its escrow account under Section 3.09 above, shall not commence until approval of this Agreement, to the extent necessary and to the satisfaction of all parties hereto, by the Texas Water Commission, including issuance of a revised Permit to the Authority, or suitable amendment to its existing Permit No. 2948, relating to the change of use of the Water for Municipal and other purposes and its interbasin transfer. Only upon issuance of the necessary Permits, complete and satisfactory to all parties hereto, shall the City's payment obligations under Article III and the Corporations' payment obligation under Article V commence in accordance with this Agreement.

4.02. The Authority shall be responsible for making and supporting the appropriate Permit application and obtaining all necessary Texas Water Commission authorizations, including that required for interbasin transfer of up to 120,000 acre feet of Water annually from Lake Fork, transfer and storage of Water in Lake Tawakoni (Dallas to absorb any transmission or evaporation losses associated with Tawakoni storage, and provided that, except to the extent allowed by State and/or Federal permits, such Water has not been additionally polluted or contaminated), and change in authorized Water use from Industrial to Municipal for that part of

the City's Water not intended for Industrial use (approximately 53,000 acre feet annually). In making and supporting such request for change in authorized use, the Authority will endeavor to have the uses so approved that will allow interbasin Municipal use of all or part of the Water eventually intended for Industrial use. TUGCO, the Corporations and the City agree to cooperate with and assist the Authority in this regard.

4.03. Should the necessary Texas Water Commission approval and the revised or amended Permit not be obtained to the satisfaction of all parties hereto within four years of the date of this Agreement, with the City acquiring firm rights to the annual use of the City's Water for the life of the Reservoir, then this Agreement may be terminated at the option of either TUGCO or the City; and if so terminated, same shall become null and void, and of no force and effect. Provided, however, the parties hereto covenant to pursue such Permit with all due diligence, and further agree to discuss and exhaust reasonable alternatives prior to exercising any right of termination.

4.04. The Authority shall have a continuing obligation to make and support additional applications for Permit changes, at the City's request, as options for Industrial use of the City's Water are released in the future.

V. THE CORPORATIONS' OPTION

5.01. The City grants to the Corporations the option to purchase up to and including 17,000 acre feet of Water per annum from the City's Water conveyed under Article II hereinabove, to be withdrawn by the Corporations from the Reservoir on the terms and under the conditions hereinafter stated.

5.02. The Corporations shall have the right to exercise this option until September 1, 1994. The Corporations may exercise the option as to all or any part of such 17,000 acre feet of Water by

giving written notice 90 days in advance thereof to the City, which notice shall state the number of acre feet of Water annually as to which the Corporations are exercising their option to purchase. The Corporations may exercise such option one time only, at which time the number of acre feet of Water annually which the Corporations agree to purchase becomes fixed.

5.03. If the Corporations fail to exercise this option as to all or any part of such 17,000 acre feet of Water on or before September 1, 1994, or if the Corporations shall give written notice to the City of their intention to relinquish the option herein granted, then this option grant shall terminate effective as of September 1, 1994, or the date of such written notice, as the case may be.

5.04. In consideration of this option, the Corporations agree to pay to the City annually 17/120 of the Service Charges the City is obligated to pay the Authority, until the option is exercised.

5.05. If the Corporations exercise their option, the sale of such Water as provided below may continue until January 1, 2014, at which time such sales shall terminate unless the Corporations negotiate with the City a renewal of their right to purchase Water for a period of time not to exceed 40 years under reasonable terms and conditions. Price of Water after the initial term shall be the City's charge for untreated raw water, established from time to time by the Dallas City Council, based upon periodic cost of service studies, unless a different price structure is agreed upon by the City and the Corporations at the time of renewal.

5.06. Except as hereinafter provided in Section 5.15, the Water sold by the City hereunder to the Corporations is sold on a "take or pay" basis. The Corporations agree to pay in advance, semi-annually on the first day of January, and July, one-half of the annual purchase price for all acre feet of Water on which they may

have exercised their option, whether or not they actually take such Water during such period. During this option's initial term, the annual purchase price the Corporations will pay the City shall be the City's charge for untreated raw water, established from time to time by the Dallas City Council, based upon periodic cost of service studies.

5.07. If the Corporations elect to exercise their option for all or any part of such 17,000 acre feet of Water annually, measured at the Corporations' Point of Delivery or as provided in Section 5.11 hereof, effective on any day other than the first day of the calendar year, then the Corporations shall pay as the purchase price for Water in such year the amount determined in accordance with section 5.06 above multiplied by a fraction the numerator of which is the number of days remaining in the calendar year after the effective date of the Corporations' exercise of their option and the denominator of which is 365.

5.08. The Corporations shall have the right to construct, operate and maintain electric generating facilities located on the Reservoir, and to use the Water purchased for the operation of such facilities, or such Water, measured at the Reservoir, may be released or withdrawn from the Reservoir for their use in connection with the operation of electric generating facilities located elsewhere. However, the Water purchased under this option shall not be resold. Other than to a subsidiary corporation substantially owned by Texas Utilities Company, the Corporations may not assign or sell this option and their right to purchase Water hereunder without the consent of the City. No assignment, sale or transfer shall in any way change or affect the obligations of the Corporations under the terms of this Agreement. Where consent for a proposed assignment or sale of this option or the Water purchased pursuant to same has been denied by the City, the Corporations may release back to the City their option and right to purchase the Water, and thereby be relieved of any further payment obligation to the City with respect to same.

5.09. The Corporations may designate, subject to the City's and Authority's approval, which approval shall not be unreasonably withheld, the point or points on the Reservoir at which the Corporations wish to withdraw Water. The Corporations shall also have the right to discharge Water withdrawn from the Reservoir, back into the Reservoir at a point or points designated by them, also subject to City's and Authority's approval, which approval shall not be unreasonably withheld, provided that, except to the extent allowed by State and/or Federal permits, such Water has not been additionally polluted or contaminated.

5.10. The Corporations shall, at their own expense, acquire, construct, and provide all necessary facilities for withdrawal and discharge of Water, pursuant to this option. The City, TUGCO and the Corporations each agree to provide easements to each other, at no cost, over and across each of their lands for the construction of each other's facilities, including pumping, discharging, dikes and canals, power lines, roads, pipelines and appurtenances, but no such facilities shall interfere with facilities constructed by the party granting the easements.

5.11. The amount of Water sold to the Corporations will include Water deemed lost to the Reservoir through forced evaporation, if the Corporations use the Reservoir for cooling, and for which the Corporations will pay in the same manner as for other Water actually withdrawn and used. Water utilized by the Corporations strictly for cooling will not be considered a "use" thereof for purposes of this Article to the extent such Water is returned to the Reservoir. Therefore, the amount of Water the Corporations may be entitled to annually will be reduced by the amount of Water calculated to have been lost to the Reservoir through such forced evaporation. The amount of Water consumed by forced evaporation by generating facilities located on the Reservoir shall be calculated as follows, or in such other fashion as may be mutually acceptable:

$$\text{Water consumed (in gallons/KWH)} = \frac{0.56 \text{ gal./KWH} \times \text{rate (BTU/KWH)}}{10,000 \text{ BTU/KWH}} - 0.23 \text{ gal./KWH}$$

The Corporations or TUGCO shall furnish to the City and to the Authority annually the calculated forced evaporation figures and will make available to the City and to the Authority such related data as may be reasonably requested to verify such calculations.

5.12. The Corporations, at their own cost and expense, shall furnish, install, operate and maintain at the point or points of delivery, measuring equipment, properly equipped with meters and devices of standard types for measuring accurately the quantity of Water withdrawn under this option for any use other than by forced evaporation, with a capacity to measure, within generally accepted industry standards for accuracy, or as established by the American Water Works Association, the quantity of Water diverted. Such meters shall be calibrated annually. The Corporations shall notify the City and the Authority in advance of the annual meter calibration, and the City and the Authority shall have the right to be present and witness such calibration. Such measuring equipment shall be approved by the City and the Authority and the Corporations, but shall remain the property of the Corporations.

5.13. During any reasonable hours, the City and the Authority shall have access to such measuring equipment so installed. Either the City or the Authority may, at its option and expense, install and maintain such measuring equipment as it deems proper to check and determine the accuracy of the Corporations' measuring equipment.

5.14. It is specifically agreed that in no event until January 1, 2014, will the Corporations withdraw Water from the Reservoir if such withdrawal would cause the surface level of Water in the Reservoir to be lower than 372 feet above mean sea level, unless this restriction is released as to all parties to this Agreement.

5.15. During periods of shortages, the City may, upon approval by the Texas Water Commission, reasonably restrict the

Corporations' withdrawals of Water pursuant to this Article V, where the available Water is needed for the City's municipal use. No such restrictions shall be imposed by the City upon withdrawals of Water from the Reservoir with respect to any user unless the City has imposed restrictions upon withdrawals as to all users similarly situated, and if any such restrictions are imposed, Water shall be allocated pro rata. In such event, the amount to be paid to the City under Section 5.06 hereof shall be reduced in proportion to the reduction in the number of acre feet of Water annually to which the Corporations were entitled.

5.16. The City shall have no duty or responsibility with respect to the treatment, quality or suitability of the Water for the Corporations' purposes, and such Water shall be taken "as is," with no warranties, express or implied. Upon withdrawal of same by the Corporations at the points of delivery, they shall be in exclusive control and possession thereof and solely responsible for any injuries or damages caused by their use of such Water.

5.17. The City and the Corporations will review periodically the need for Water resources and will cooperate in long range planning.

5.18. The Corporations agree and covenant that, in the event they exercise their option to purchase Water herein, the Corporations will violate no law, state or federal, relating to pollution or contamination of the Lake Fork environs, and especially the Water impounded in Lake Fork Reservoir. In the event of any final judgment finding such violation or violations, the Corporations shall be strictly liable for any damages caused thereby to the property or estate of the City, including the City's interest in the Water.

5.19. All payments of the Corporations falling due the City under this Article V, between the effective date of this Agreement until the Date of Issuance of the revised or amended Permit set out

under Article IV, shall be paid to City by deducting same from the amounts City is required to escrow under Section 3.09 above.

VI. INITIAL TERM AND RENEWALS; COMPENSATION
DURING RENEWAL TERMS; TERMINATION

6.01. Subject to the provisions of Article IV hereinabove, the initial term of this Agreement shall commence on October 1, 1981, and, unless this Agreement is sooner terminated as herein provided, such term shall continue up to and including November 1, 2014. Unless written notice terminating this Agreement shall have been given to the Authority by the City not less than one year prior to November 1, 2014, or not less than one year prior to the expiration of each successive forty (40) year term, this Agreement shall be renewed for additional periods of forty (40) years upon the same terms and conditions, with the exception of Section 2.03, and subject to Section 6.02, throughout the useful life of the Reservoir.

6.02. The amount of compensation that the Authority shall be entitled to receive during any renewal term (exclusive of the City's pro rata share of the Service Charge) shall be determined by mutual agreement between the City and the Authority, taking into account such price as is prevailing in the general area at the time for like contract sales of water of similar quality, quantity and contract period. The City and the Authority agree to commence negotiations to determine the amount of such compensation at least one year prior to the expiration of the initial period and each successive forty (40) year term thereafter. In the event that the City and the Authority are unable to agree upon the amount of such compensation prior to the expiration of each such term, the Texas Water Commission may establish interim compensation to be paid by the City to the Authority. It is understood and agreed by the City and the Authority that the amount of compensation finally determined for each renewal term shall be applicable from and after the

commencement of the then current term; if the interim compensation is greater than the amount of compensation finally determined, the Authority agrees to pay the City such overage within ninety (90) days after such determination, and if the interim compensation is less than the amount of compensation finally determined, the City agrees to pay to the Authority such underage within ninety (90) days after such determination.

6.03. The rights conveyed to the City of Dallas under this Agreement may only be defeated by the City terminating this Agreement at the end of the initial term or any subsequent forty (40) year renewal term, or upon the expiration of the useful life of the Reservoir, but such rights shall be subject to pro-rata (120/163) adjustments for diminution in yield over the Reservoir life as from time to time determined by the Consulting Engineer.

6.04. In the event the Water in the Reservoir becomes polluted, contaminated or otherwise unusable or unavailable for the City's use for municipal and domestic purposes to the extent of and in accordance with its rights under this Agreement, as a result of any act, omission or negligence on the part of the Corporations, or any one of them, their contractors, subcontractors, subsidiaries, successors, assigns, officers, agents or employees, then and in that event, the City shall be entitled to the following relief, in addition to any other remedies available under this Agreement or at law or in equity:

(a) immediate undertaking by the Corporations to remedy, at their cost, the pollution, contamination or damage so caused;

(b) cessation, after 2 years, of the City's obligation to pay Semi-Annual Facilities Charges and Service Charges, and immediate resumption of the payment of such charges by the Corporations until such time as the Water is again rendered suitable and available to the City for municipal, domestic use in accordance with this Agreement;

(c) termination of this Agreement, at the City's option, if, after a period of at least two (2) years from the date the Water was so rendered unusable or unavailable to the City for municipal and domestic purposes, such remains the situation. In the event of termination for such reason, the Corporations will reassume all of their original obligations under the Facilities Agreement and Bond Amortization Contract, including payment of all Charges

therein, and will equitably reimburse the City for all its capital costs and expenditures for City facilities in connection with Lake Fork, including, but not limited to, pipelines, easements, pumping and intake facilities, as well as reimbursement of all past Service Charges and Semi-Annual Facilities Charges paid by the City during those years prior to completion of the City's intake and pipeline facilities to Lake Tawakoni facilities, reimbursement of the payment made by the City pursuant to Section 3.08 hereinabove, and reimbursement of Service Charges and Semi-Annual Facilities Charges paid by the City during those years the Water became so polluted, contaminated or otherwise unusable or unavailable for the City's use as set out hereinabove.

6.05. This Agreement may be terminated under terms and conditions mutually agreeable to all parties hereto.

VII. REVENUE FROM CERTAIN OPTIONS AND SALES;
COMPLETION OF PROJECT

7.01. The Authority and the City agree as follows, notwithstanding any existing provisions of the Facilities Agreement and Bond Amortization Contract:

(a) With regard to the existing agreements with Tenneco Coal Company and Phillips Coal Company, Exhibits "M" and "L" respectively, ninety-five percent (95%) of the revenue received by the Authority shall be deposited by the Authority to the credit of the Debt Service Fund, and any such actual deposit shall reduce, to the extent thereof, the amount of Semi-Annual Facilities Charges that the City otherwise would be required to deposit therein. The Authority shall retain five percent (5%) of the price so received and may use it in any manner deemed advisable by the Authority. In the event no Bonds are outstanding at the time of the receipt of revenues from the agreements with Phillips Coal Company or Tenneco Coal Company, all of the revenues so received shall be retained by the Authority and may be used in any manner deemed advisable by the Authority, until expiration of the agreements on or before December 31, 2013; provided, however, that with the exception of those revenues received in accordance with the Tenneco Option, the Authority shall pay from such revenues so received while no Bonds are outstanding the proportionate part of the Service Charge in the ratio that the volumes of Water then being sold under such agreements bear to 163,000 acre feet. If the Phillips and Tenneco agreements are renewed, then, notwithstanding the provisions of this Section 7.01(a), ninety-five percent (95%) of the revenues received by the Authority from sales of Water to Phillips Coal Company or Tenneco Coal Company following such renewal shall be paid to the City by the Authority. The Authority shall retain five percent (5%) of such revenues so received as its commission and may use it in any manner deemed advisable by the Authority.

(b) Other than the sale of Water under the initial or renewed Phillips and Tenneco agreements, and as provided in Section 7.01(c) and 7.01(e) hereof, any disposition of the City's Water will be considered use of Water (not a sale)

by Dallas, notwithstanding any contrary provisions of the existing Facilities Agreement, including Section 3.09 thereof.

(c) The City may use its share of the dependable yield of the Reservoir annually for any lawful purpose, which includes wholesale sales to municipalities or other water supply agencies for resale. If the City wishes to sell any part of the Water for delivery within the Sabine River Basin (other than occasional retail sales for domestic use), the City shall so advise the Authority in writing, and the Authority agrees to use its reasonable best efforts to sell such Water at the then prevailing rate for Water in the general area. All such sales shall be subject to the prior written approval of the City. The Authority also agrees to sell such Water until November 1, 2014 to any purchaser at any price suggested or approved by the City.

(d) Subject to the provisions of the Bond Resolutions, one hundred percent (100%) of the revenue from the sale of the Water referred to in Section 3.07 of the Facilities Agreement shall be retained by the Authority to use in any manner, subject to Section 3.05(b) of this Agreement, wherein the Authority agrees to pay from the proceeds of sales of, or rights to take, such Water a proportionate part of the Service Charge in the ratio that the volume of such Water so sold bears to 163,000 acre feet. Notwithstanding the foregoing, in the event the Authority, TUGCO or the Corporations sell any portion of the 20,000 acre feet of Water designated for sale under the Water Purchase Agreement between the Authority and the Corporations (Exhibit "O" hereto) to any entity other than TUGCO, the Corporations, or a successor corporation resulting from merger or consolidation, by direct sale, resale, assignment or otherwise, during the term of said Water Purchase Agreement or thereafter, then the provisions of Section 3.07 of the Facilities Agreement shall apply to the Authority's proceeds derived from such portion of the Water, and the Authority, in addition to paying from its proceeds the proportionate part of the Service Charge, shall also pay 75% of the remaining proceeds in excess of \$27.50 per acre foot in the case of sales to municipalities (which sales shall not exceed 3,500 acre feet per annum) and 75% of the remaining proceeds in the case of all other sales from said 20,000 acre feet, after deducting therefrom the portion of the Service Charge paid, to the credit of the Debt Service Fund, to reduce, to the extent thereof, the amount of Semi-Annual Facilities Charges that the City otherwise would be required to deposit therein.

(e) In the event of the termination for any reason of the right of Phillips Coal Company to purchase all or any portion of the Water to which it is entitled under the terms of the Phillips Contract or the failure of Tenneco Coal Company to exercise its option to purchase all or any portion of the Water to which it is entitled under the terms of the Tenneco Option, the City will offer to the Authority for sale by the Authority for municipal use within the Sabine River Basin up to 10,000 acre feet annually of the Water so relinquished. Not later than twelve (12) months following the City's offer, the Authority shall give notice to the City of its intention to sell such amount of Water, which notice must state the number of acre feet of Water annually the Authority intends to sell, the period of such sale, and the price to be

charged therefor, which price per acre foot shall not be less than the City's cost per acre foot for Water. If the Authority fails to give such notice to the City and consummate the sale within such twelve (12) month period, such offer shall terminate as to such Water.

(f) The Authority shall deposit in the Debt Service Fund ninety-five percent (95%) of the price so received by the Authority for any sale of Water pursuant to Sections 7.01(c) and 7.01(e), and any such deposit shall reduce, to the extent thereof, the amount of Semi-Annual Facilities Charges that the City otherwise would be required to deposit therein. The Authority shall retain five percent (5%) of the price so received and may use it in any manner deemed advisable by the Authority. In the event no Bonds are outstanding at the time of the receipt of revenues from such sales, ninety-five percent (95%) of the price so received by the Authority from any such sales shall be paid promptly by the Authority to the City, and five percent (5%) shall be retained by the Authority and used by it in any manner deemed advisable.

(g) It is understood that under the terms of Tenneco's Option, Tenneco Coal Company is presently paying to the Authority the sum of \$20,000 annually, representing consideration, at the rate of \$1.00 per acre foot, for the option to purchase 20,000 acre feet of Water per year. The parties agree that the Authority shall retain the said sum, not to exceed \$20,000 annually, subject to pro rata reduction to the extent Tenneco exercises its option, and may use it in any manner deemed advisable by the Authority.

7.02. The Authority will complete the Lake Fork Project expeditiously and at the lowest reasonable cost, to the extent proceeds from the sale of Bonds are available for such purpose.

VIII. ADMINISTRATION AND NOTICES

8.01. This Agreement shall be administered on behalf of the City of Dallas by its Director of Water Utilities, or his authorized designee, who shall be responsible for carrying out its terms and provisions. All activities under this Agreement involving the City shall be coordinated with said Director, or his designee, and all notices, correspondence, and other documents relating hereto shall be mailed or delivered as follows:

Director of Water Utilities
City of Dallas
City Hall, 4/A/North
1500 Marilla Street
Dallas, Texas 75201

8.02. For purposes of coordination and carrying out the terms of this Agreement, the Corporations have designated TUGCO as their Agent; TUGCO and the Authority shall be represented by the

following officers, or their designees, and all notices, correspondence and other documents relating hereto shall be mailed or delivered as shown:

TUGCO:

Executive Vice President and General Manager
Texas Utilities Generating Company
2001 Bryan Tower
Dallas, Texas 75201

AUTHORITY:

Executive Vice President and General Manager
Sabine River Authority of Texas
P.O. Box 579
Orange, Texas 77630

8.03. The parties agree to provide information from time to time concerning any changes in assigned or designated personnel required for project coordination.

8.04. The City's Director of Water Utilities shall be responsible for developing with the Authority the necessary administrative and operational procedures in connection with the transfer and storage of the City's Water in Lake Tawakoni.

8.05. Any notice under this Agreement shall be given in writing and shall be deemed to have been given by any party to the other parties upon either of the following dates:

(a) The date of the mailing thereof, as shown by the post office receipt if mailed to the other parties hereto by registered or certified mail at the latest address specified by such other party in writing; or

(b) The date of the receipt thereof by such other party if not so mailed by registered or certified mail.

IX. MISCELLANEOUS

9.01. All headings of the Articles and particular Sections of this Agreement have been inserted for convenience of reference only and are not to be considered a part of this Agreement, and in no way shall they affect the interpretation of any of the provisions of this Agreement.

9.02. The rights and remedies of the parties set forth in this Agreement shall not be exclusive, and are in addition to all

other rights and remedies of the parties hereto, including the right to appear and participate in all proceedings affecting the interests of any party hereto.

9.03. The validity, interpretation and performance of this Agreement shall be governed by the laws and Court Decisions of the State of Texas.

9.04. The parties hereto recognize that it may become necessary or advisable to issue additional Bonds to complete, repair, replace, extend or otherwise improve the Facilities, or to refund any of the Bonds. In the event such Bonds are issued by the Authority at the request of the City, subject, however, to the approval of the Corporations in the manner provided in the Bond Amortization Contract, the City shall be liable for Semi-Annual Facilities Charges as specified in the Bond Amortization Contract and the Bond Resolutions authorizing such Bonds, to the extent that the Corporations would be so liable. It is understood that the approval of TUGCO, on behalf of the Corporations, is required for the issuance of additional Bonds under the existing Bond documents, and that the Corporations must be primarily liable for all Semi-Annual Facilities Charges required to amortize such additional Bonds. If such approval cannot be obtained, additional Bonds may be issued pursuant to other arrangements mutually agreeable to the Authority and the City.

9.05. This Agreement may be amended or supplemented by mutual agreement of the parties hereto, but in no event shall any such amendment or supplement change or affect the Bond Amortization Contract.

9.06. The payments by the City of Semi-Annual Facilities Charges and Service Charges, to the extent required herein, and the City's performance of other obligations expressly imposed hereunder, constitute full consideration for all rights, privileges and benefits accruing to the City under this Agreement, as well as for the conveyance herein contained.

9.07. The Authority agrees to operate and maintain the Facilities in a prudent, efficient, and economical manner and to take such steps as may be reasonable from time to time to reduce both fixed and variable costs of operation and maintenance of the Facilities, consistent with the proper operation and maintenance of the Facilities.

9.08. The parties hereto agree to discharge their respective obligations under this Agreement in compliance with all applicable laws, ordinances, and governmental rules and regulations, and subject thereto.

9.09. This Agreement shall be subject to the approval and the continuing jurisdiction of the Texas Department of Water Resources, including the Texas Water Commission, or its successor agency.

9.10. TUGCO, the Corporations, their subsidiaries, or any other corporation substantially owned by Texas Utilities Company, or their successors, and the Authority will not acquire the Phillips or Tenneco options, or the Water from Phillips or Tenneco in the event either or both exercise their options, except with the prior written permission of the City.

9.11. TUGCO covenants and represents that it is fully authorized by law and corporate action of the Corporations and TUGCO to act as agent for, and to bind and obligate, the Corporations as provided herein.

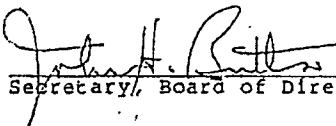
XX. ENFORCEMENT

10.01. The parties hereto agree to carry out, respect, and enforce their respective covenants and undertakings as provided in this Agreement by all legal and equitable means, and in addition the City shall have the right to enforce its rights by filing mandamus or injunction proceedings in any court of competent jurisdiction against the Authority, its officials and employees, or any appropriate official of the State of Texas.

10.02. The parties agree that if legal action is necessary to enforce or interpret any of the terms and provisions of this Agreement, exclusive venue shall lie in Travis County, Texas.

EXECUTED as of the 1st day of October, 1981.


ATTEST:


Secretary, Board of Directors


SABINE RIVER AUTHORITY OF TEXAS

BY 
OLIN V. JOFFEY, President,
Board of Directors

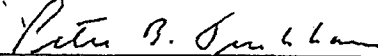
APPROVED AS TO FORM:


EARL ROBERTS, JR.
ATTORNEY FOR SABINE RIVER
AUTHORITY

APPROVED:

BY 
SAM F. COLLINS, Executive Vice
President and General Manager

ATTEST:


Secretary

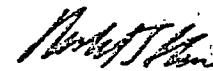
TEXAS UTILITIES GENERATING COMPANY

BY 
L. F. FIKAR, Vice President


For and on behalf of, and as Agent
for:

DALLAS POWER & LIGHT COMPANY
TEXAS ELECTRIC SERVICE COMPANY
TEXAS POWER & LIGHT COMPANY

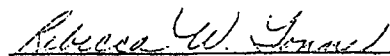
ATTEST:


ROBERT S. SLOAN,
City Secretary

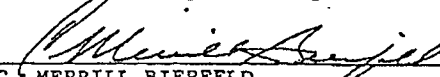
CITY OF DALLAS
CHARLES S. ANDERSON, City Manager

BY 
CHARLES S. ANDERSON,
City Manager

COUNTERSIGNED:


REBECCA W. TONNE
City Controller

APPROVED AS TO FORM:
LEE E. HOLT, City Attorney

BY 
C. MERRILL BIERFELD
Assistant City Attorney

4826K/wp

THE STATE OF TEXAS)
COUNTY OF GREGG)

BEFORE ME, the undersigned authority, on this day personally appeared OLIN V. JOFFRION, President of the Board of Directors of the Sabine River Authority of Texas, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated and as the act and deed of said Sabine River Authority of Texas.

GIVEN UNDER MY HAND AND SEAL OF OFFICE on this the 29th day of April, 1982.

[seal]

ERD
NOTARY PUBLIC IN AND FOR GREGG COUNTY, TEXAS
My commission expires March 19, 1984

Earl Roberts, Jr.

(Printed or stamped name of notary)

THE STATE OF TEXAS)
COUNTY OF DALLAS)

BEFORE ME, the undersigned authority, on this day personally appeared L. F. FIKAR, Vice President of Texas Utilities Generating Company, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated and as the act and deed of said Texas Utilities Generating Company.

GIVEN UNDER MY HAND AND SEAL OF OFFICE on this the 15th day of June, 1982.

[seal]

Ann Dawson
NOTARY PUBLIC IN AND FOR DALLAS COUNTY, TEXAS
My commission expires 4-2-84, 1984

ANN DAWSON
(Printed or stamped name of notary)

THE STATE OF TEXAS)
COUNTY OF DALLAS)

BEFORE ME, the undersigned authority, on this day personally appeared CHARLES S. ANDERSON, City Manager of the City of Dallas, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity therein stated and as the act and deed of said City of Dallas.

GIVEN UNDER MY HAND AND SEAL OF OFFICE on this the 17th day of June, 1982.

[seal]

Deborah Cavaler
NOTARY PUBLIC IN AND FOR DALLAS COUNTY, TEXAS
My commission expires 3-6, 1984

DEBORAH CAVALIER

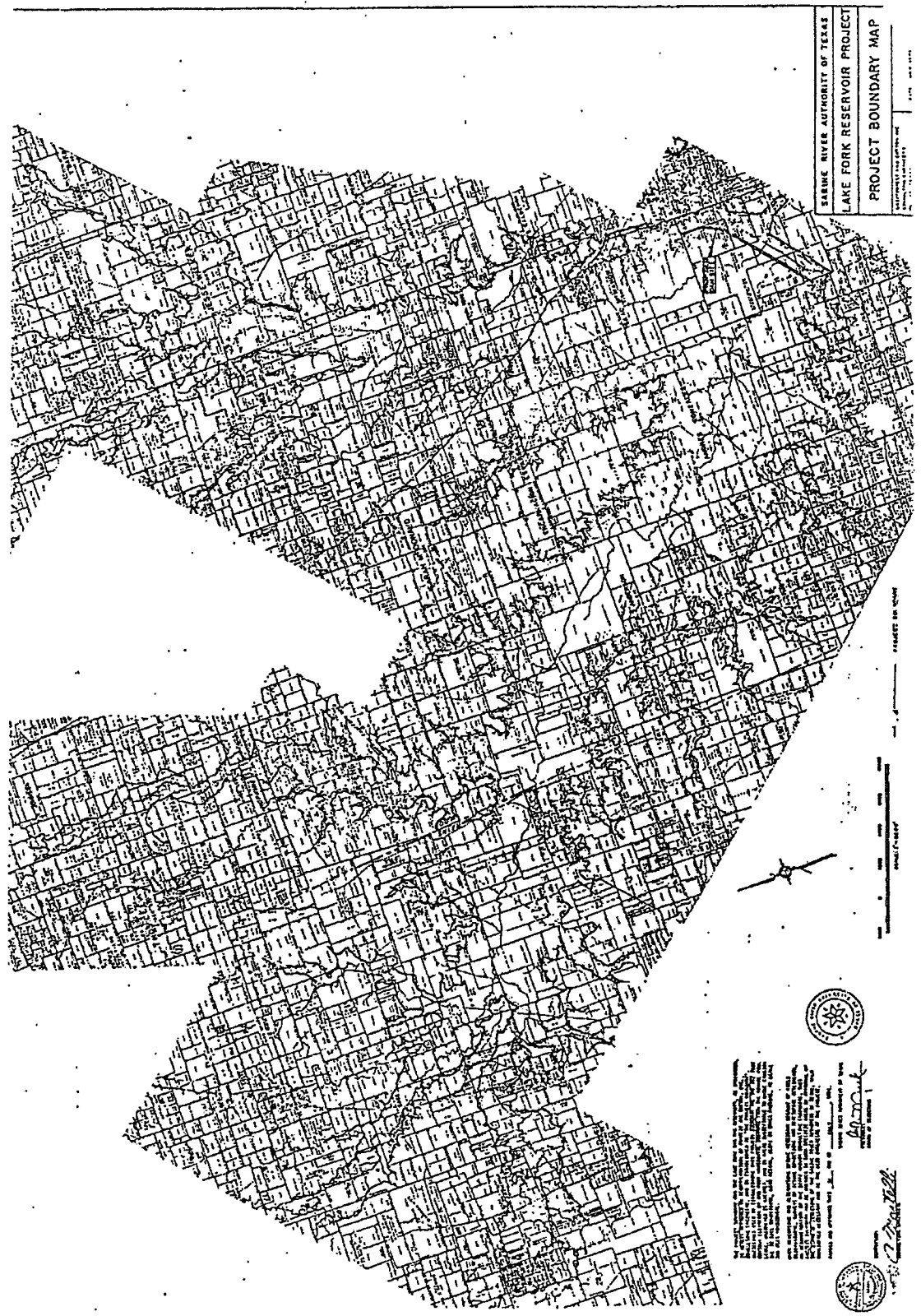
(Printed or stamped name of notary)

4826K/wp

I N D E X

EXHIBITS TO
WATER SUPPLY CONTRACT AND CONVEYANCE
BETWEEN THE CITY OF DALLAS, TEXAS,
THE SABINE RIVER AUTHORITY OF TEXAS,
AND TEXAS UTILITIES GENERATING COMPANY, AGENT

Lake Fork Project Boundary Map dated July, 1974, prepared by the Consulting Engineers, and approved by the Authority on July 31, 1974.	ATTACHMENT
Bond Amortization Contract dated February 18, 1974, providing for payments of Semi-Annual Facilities Charges	EXHIBIT "A"
Bond Resolutions in conjunction with the Lake Fork Reservoir Project as authorized by the Authority's Board of Directors:	
Resolution No. 307	EXHIBIT "B"
Resolution No. 322	EXHIBIT "C"
Resolution No. 365	EXHIBIT "D"
Resolution No. 377	EXHIBIT "E"
Resolution No. 383	EXHIBIT "F"
Resolution No. 403	EXHIBIT "G"
Consolidated Schedule of Debt Service Requirements in conjunction with Bond Resolutions set out above	EXHIBIT "H"
Water Supply Facilities Agreement between the Authority, the Corporations and Texas Utilities Generating Company dated February 18, 1974	EXHIBIT "I"
Permit No. 2948: "Permit to Appropriate State Water" obtained by the Authority dated August 1, 1974	EXHIBIT "J"
Application approved by the Texas Water Commission for an amended or revised Permit as required by this Agreement	EXHIBIT "K"
Phillips Water Purchase Contract dated December 14, 1979, between the Authority, the Corporations and Phillips Coal Company	EXHIBIT "L"
Tenneco Agreement dated December 19, 1979, between the Authority and Tenneco Coal Company	EXHIBIT "M"
Trust Indenture between the Authority and Republic National Bank of Dallas, as Trustee, dated December 1, 1974	EXHIBIT "N"
Water Purchase Agreement between the Authority and the Corporations of even date herewith	EXHIBIT "O"
Easements Exchange Agreement between Phillips Coal Company, the Authority and the Corporations dated December 14, 1979	EXHIBIT "P"
Water Supply Agreement between the Authority and the City of Longview, Texas, dated March 5, 1975	EXHIBIT "Q"



Memorandum



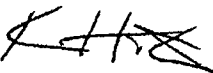
Date: September 12, 2014

To: Honorable Mayor and Members of the City Council

Subject: Long Range Water Supply Plan Briefing – Water Utilities Department

Attached is a briefing that will be presented to the City Council on Wednesday, September 17, 2014. The briefing will provide an update on the current water supply status, a progress update on the Long Range Water Supply Plan and recommended water management strategies to be included in the 2017 State Water Plan.

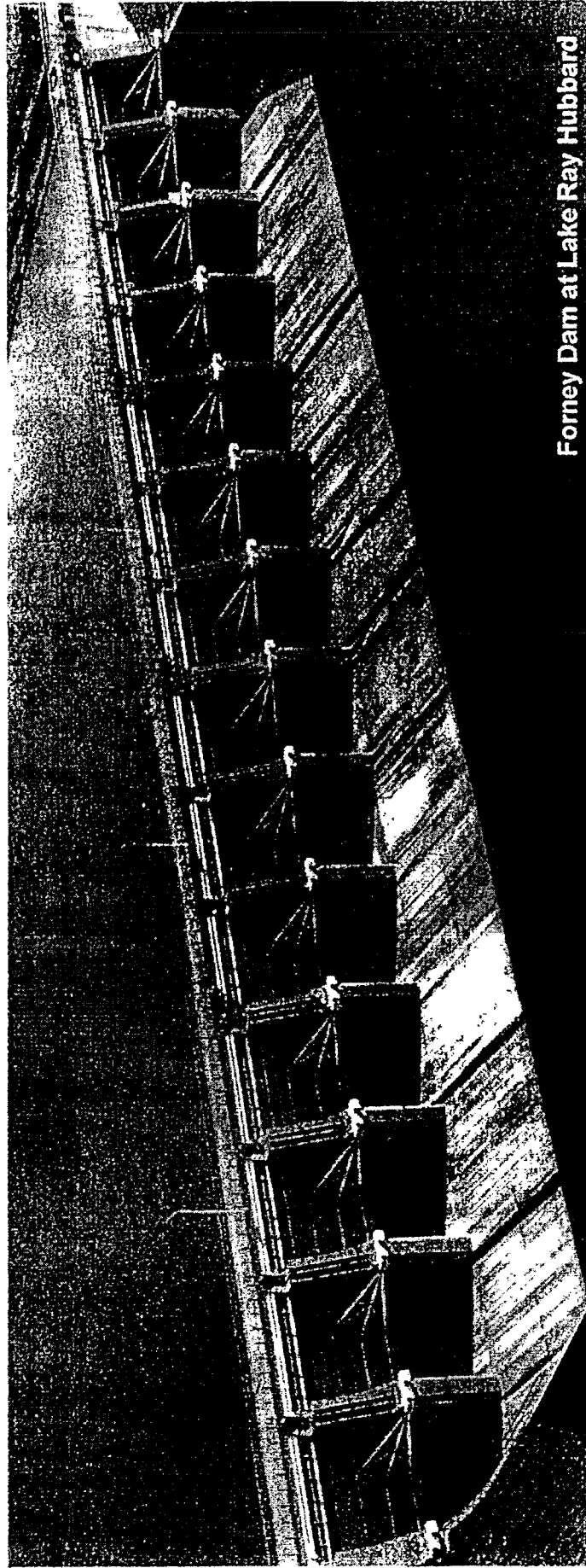
Please let me know if you should need additional information.


for Mark McDaniel
Assistant City Manager

[Attachment]

Cc: A.C. Gonzalez, City Manager
Warren M. S. Ernst, City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Ryan S. Evans, First Assistant City Manager
Jill A. Jordan, Assistant City Manager
Forest E. Turner, Assistant City Manager
Joey Zapata, Assistant City Manager
Charles M. Cato, (I) Assistant City Manager
Theresa O'Donnell, (I) Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Sana Syed, Public Information Officer
Elsa Cantu, Assistant to the City Manager – Mayor & Council
Jo M. (Jody) Puckett, P.E., Director

Long Range Water Supply Plan



Forney Dam at Lake Ray Hubbard

Dallas City Council
September 17, 2014





Purpose

- To provide an update on the Current Water Supply Status
- To provide a progress update on the Long Range Water Supply Plan including
 - Updated water demand projections
 - Potential water management strategies

Outline

- Current Water Supply Status and Drought

Outlook

- Long Range Water Supply Planning

- Projected Demands

- Current Supplies

- Projected Needs

- Management Strategies

- Appendix

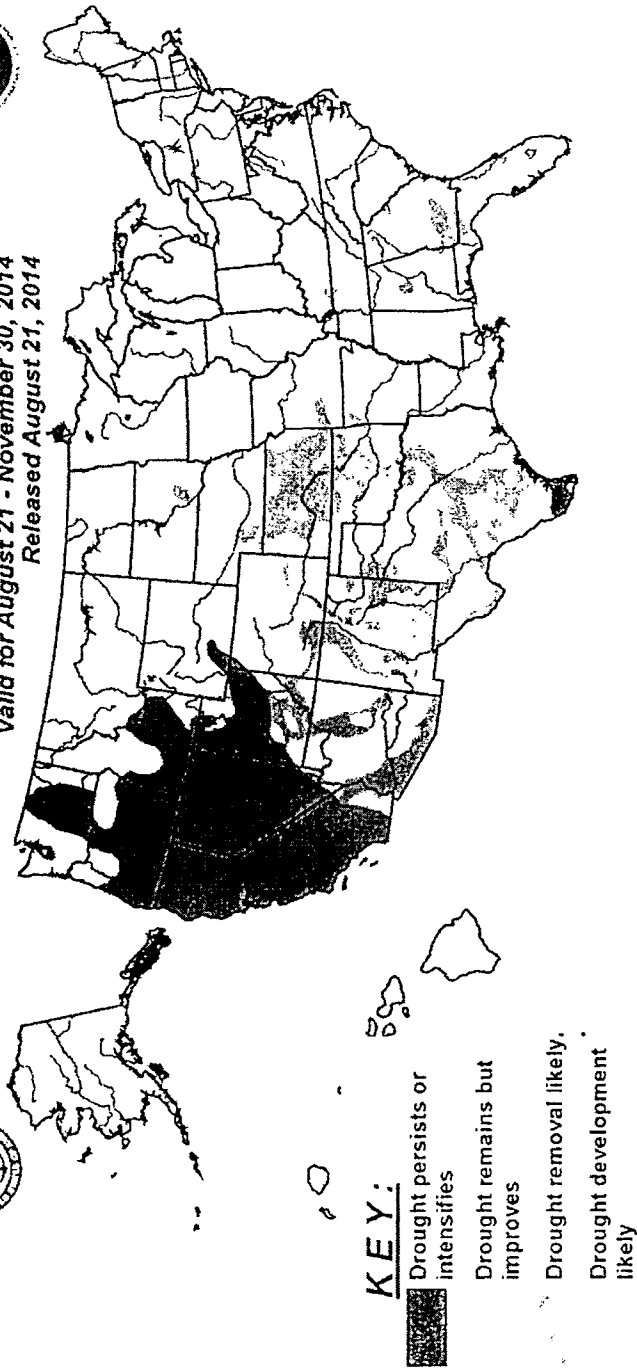
Current Water Supply Status and Outlook





U.S. Seasonal Drought Outlook

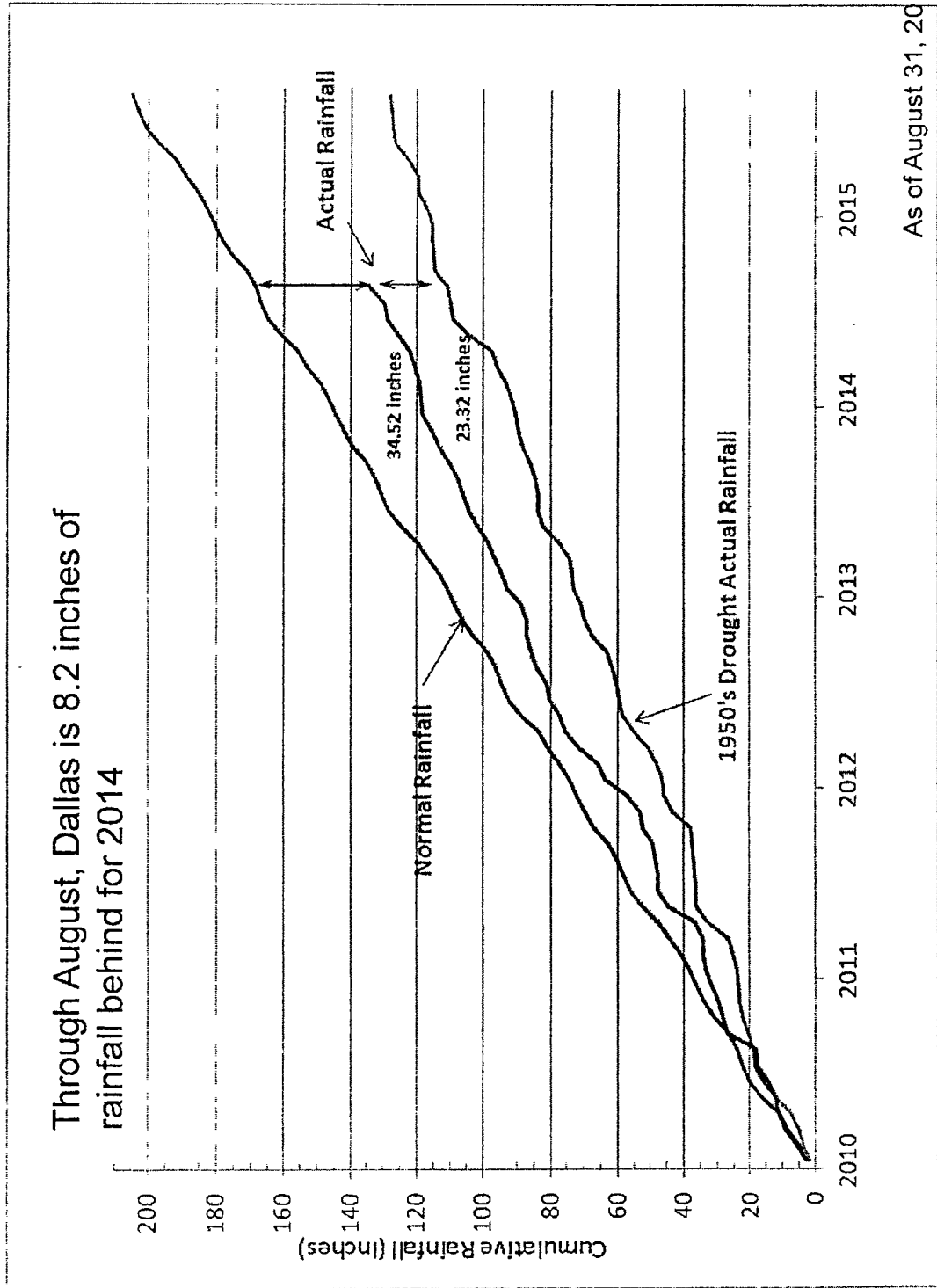
Drought Tendency During the Valid Period
Valid for August 21 - November 30, 2014
Released August 21, 2014



- June and August rainfall continued to improve drought conditions across Texas
- Short term forecasts and enhanced probabilities for above-median precipitation through October, increase the potential for drought improvement or removal across far north Texas
- National Weather Service (NWS) indicates a 65% chance of El Nino emerging in fall and early winter. Forecasters favor a weak event.
 - El Nino for Texas would mean a higher probability of rainfall in the winter and spring, although it is not guaranteed
- The NWS Climate Prediction Center predicts normal temperatures and above normal precipitation through December

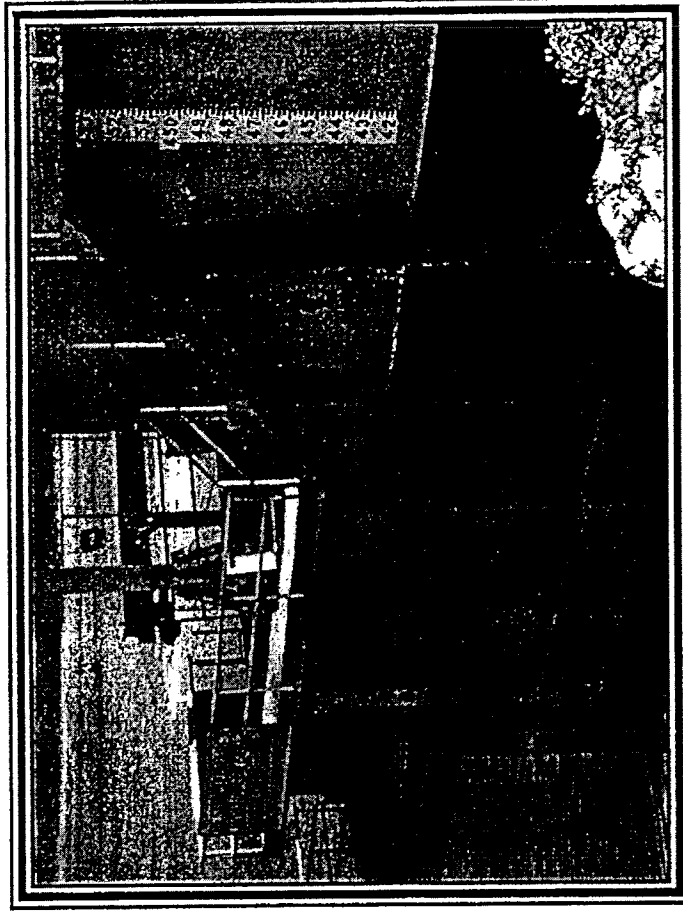
Current Drought Conditions

Dallas' Cumulative Precipitation



Current Lake Conditions

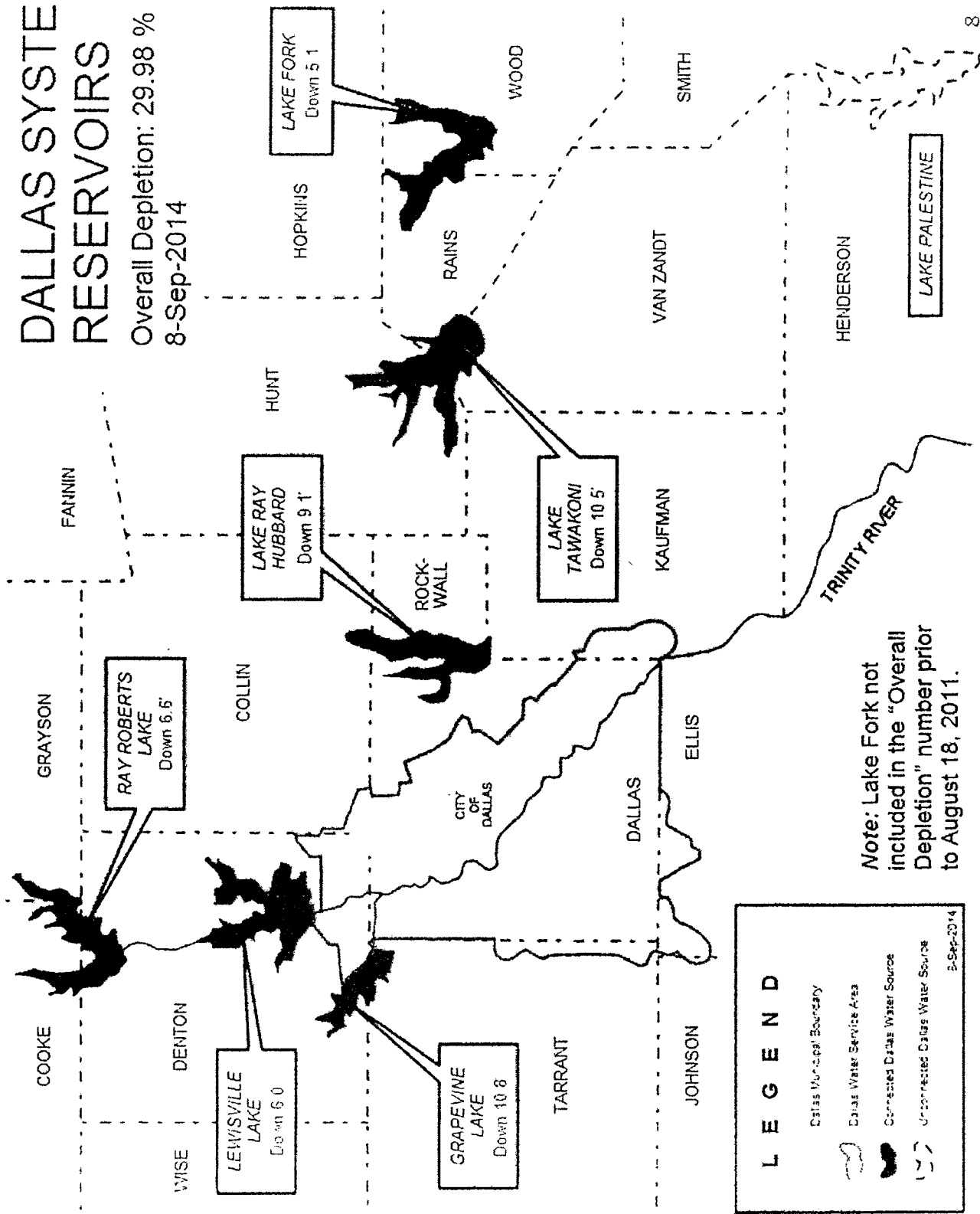
- Current hydrologic drought began 2010
 - Lakes haven't been full since May 2010
 - 2011 worst one-year drought on record
- Dallas' water supplies are currently 30% depleted (8-Sep-2014)
 - One month ago 27.2% depleted
 - One year ago 27.7% depleted



Lake Tawakoni 2013

DALLAS SYSTEM RESERVOIRS

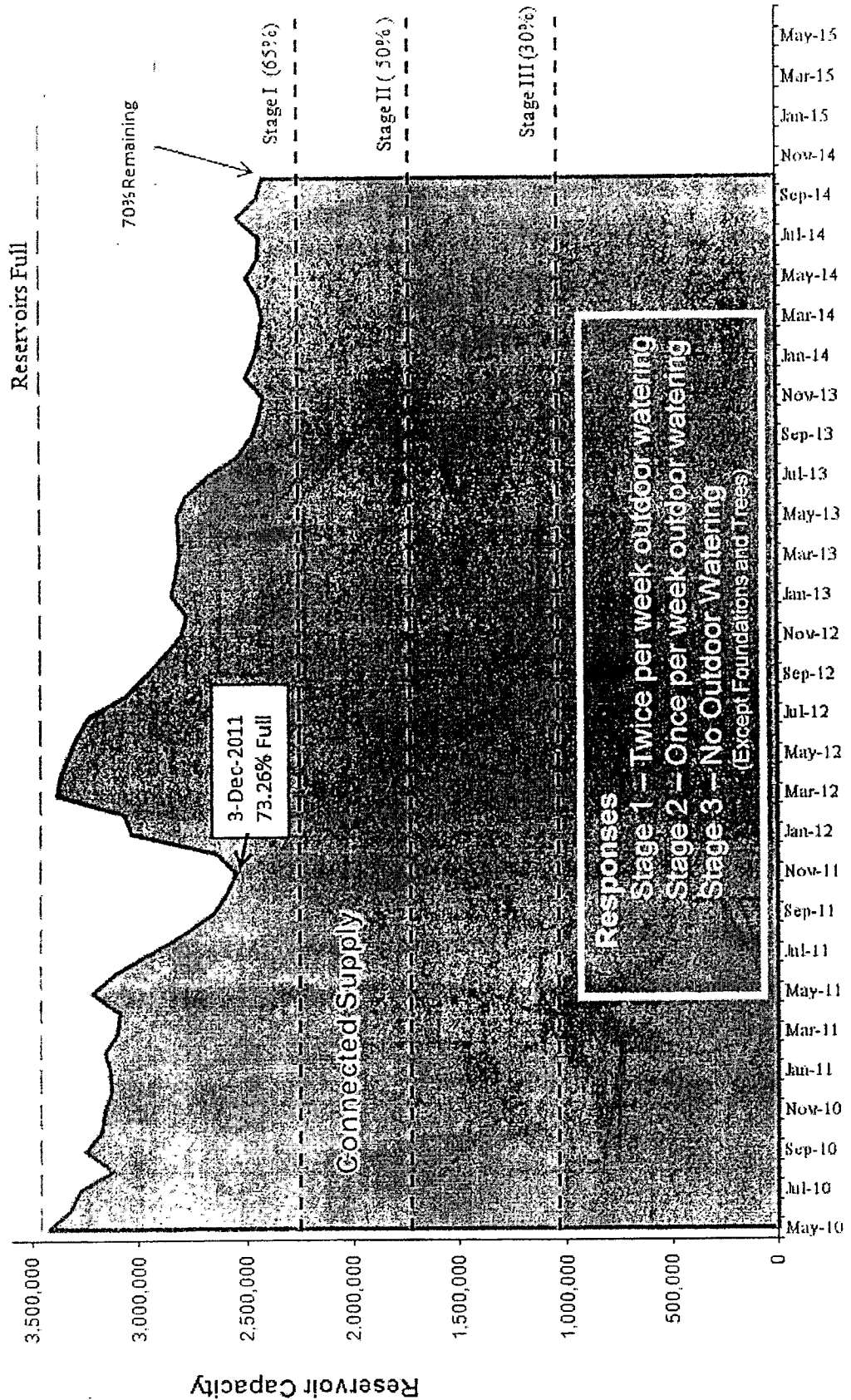
Overall Depletion: 29.98 %
8-Sep-2014

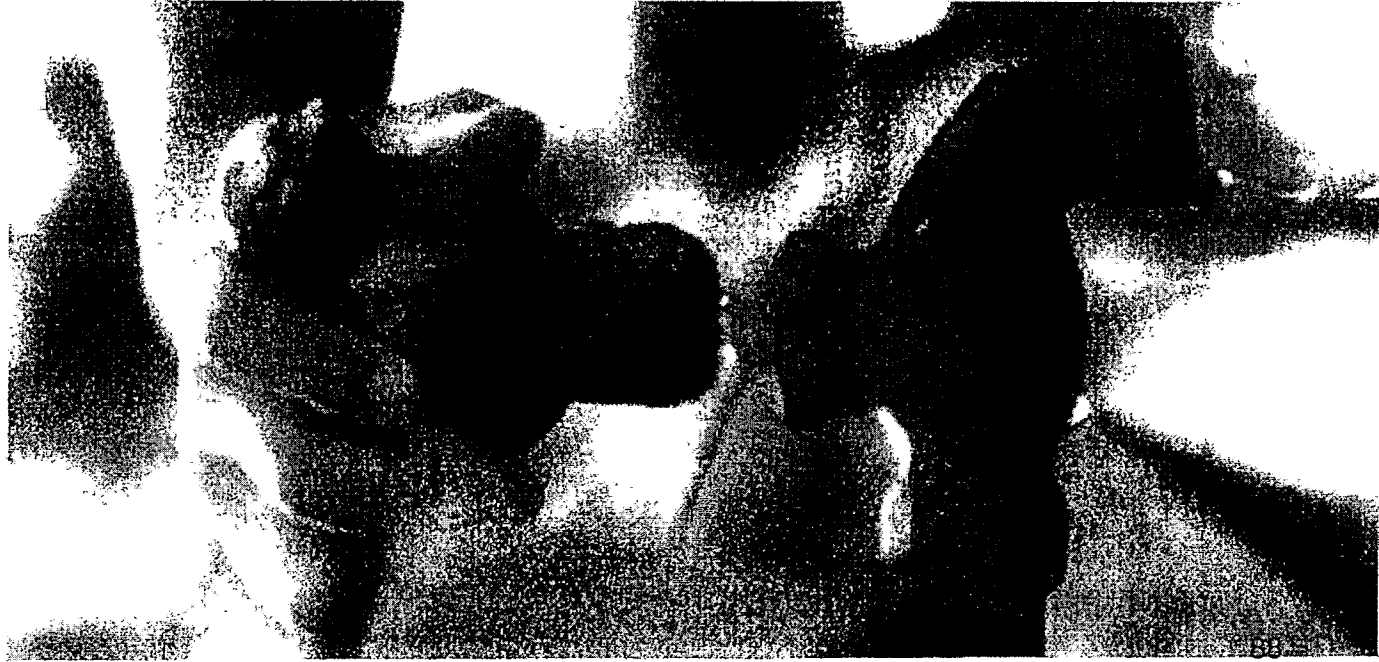


Total Reservoir System Condition Analysis

(Lakes Ray Roberts, Lewisville, Grapevine, Ray Hubbard, Tawakoni and Fork)

As of September 8, 2014

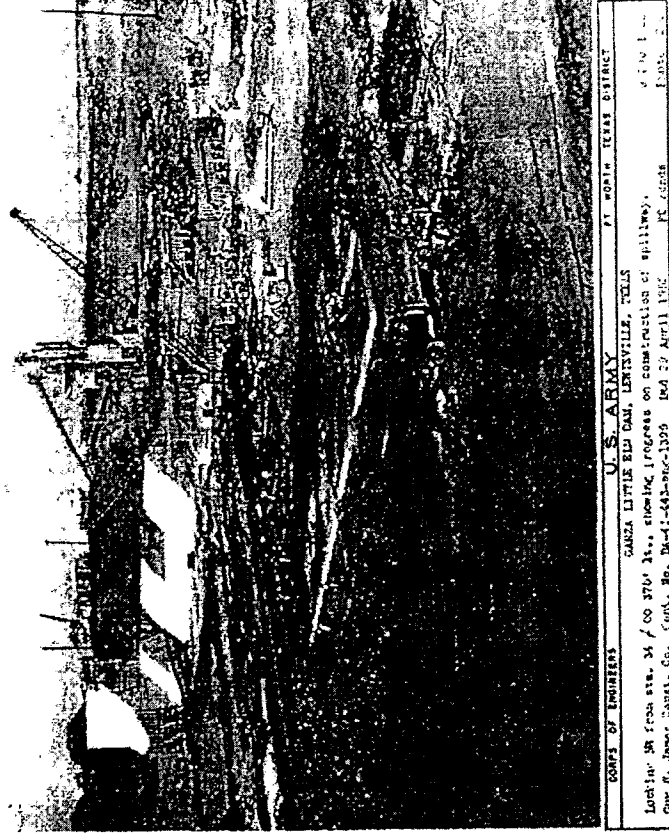




Long Range Water Supply Planning

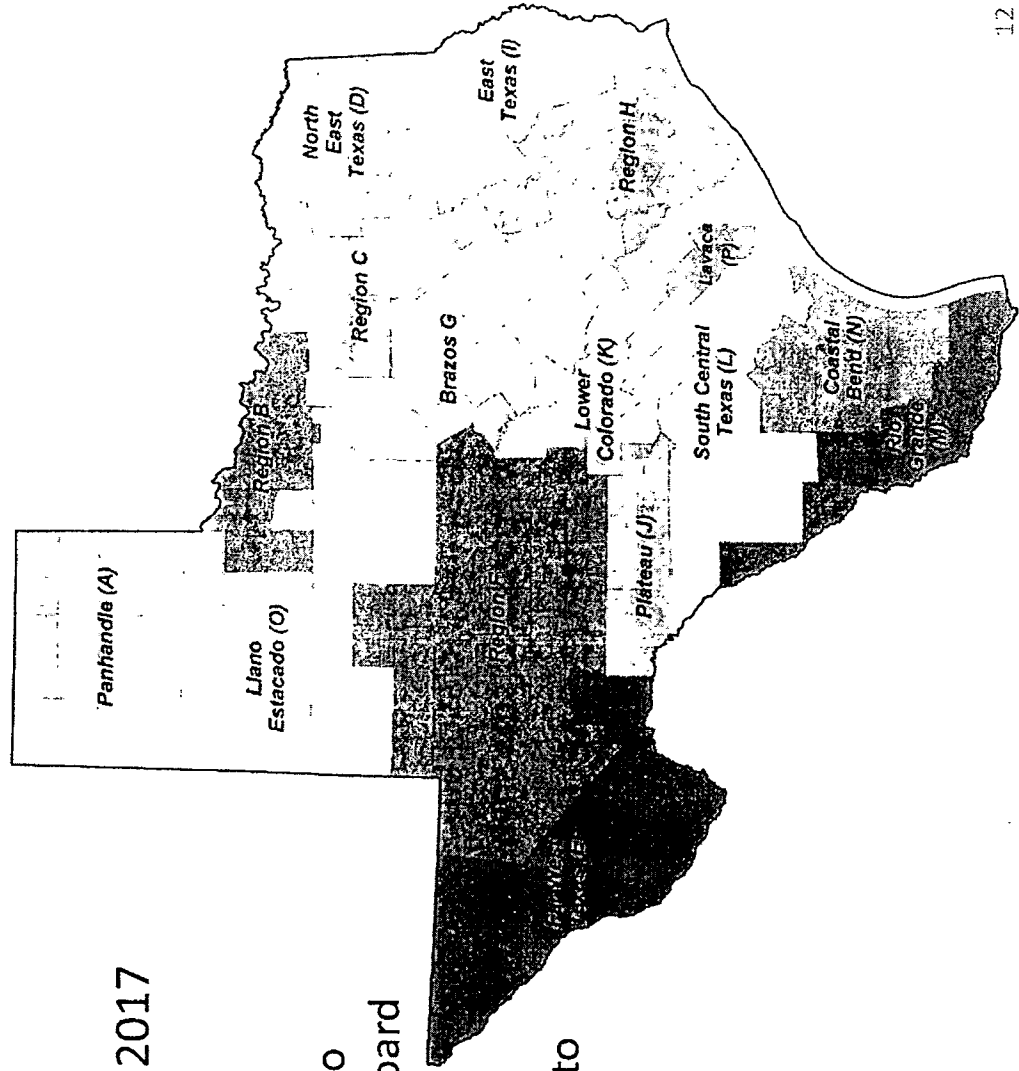
Long Range Water Supply Planning

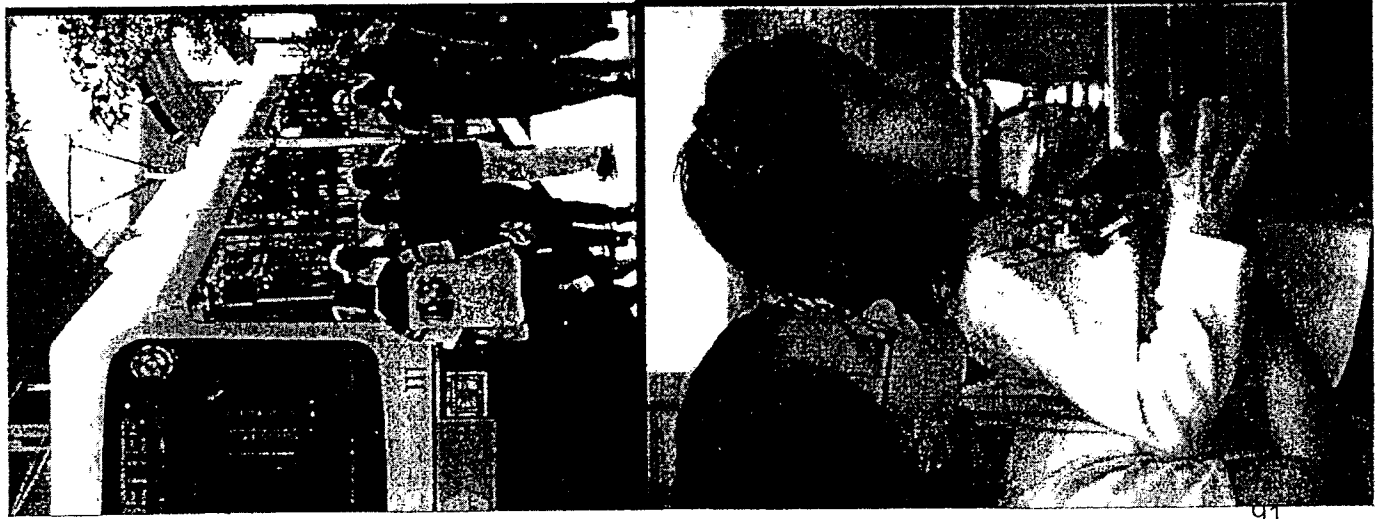
- Dallas' 1959 Long Range Water Supply Plan was updated in 1975, 1989, 2000 and 2005
 - The 1959 study recommended that Dallas supply water to surrounding cities
- The passage of Senate Bill 1 of the 75th Legislative Session in 1997 changed water supply planning throughout the State
 - Regional water planning groups established
 - Regional and State water plans required every five years
 - Local plans to be provided to the Regional Water Planning Group for consideration in the Regional Water Plan



Regional Water Planning

- State Water Plan due to Governor and Legislature in 2017 to meet the State Water Plan Schedule
 - Region C Water Plan is due to Texas Water Development Board (TWDB) in November 2015
 - Council approved water management strategies due to Region C by January 2015

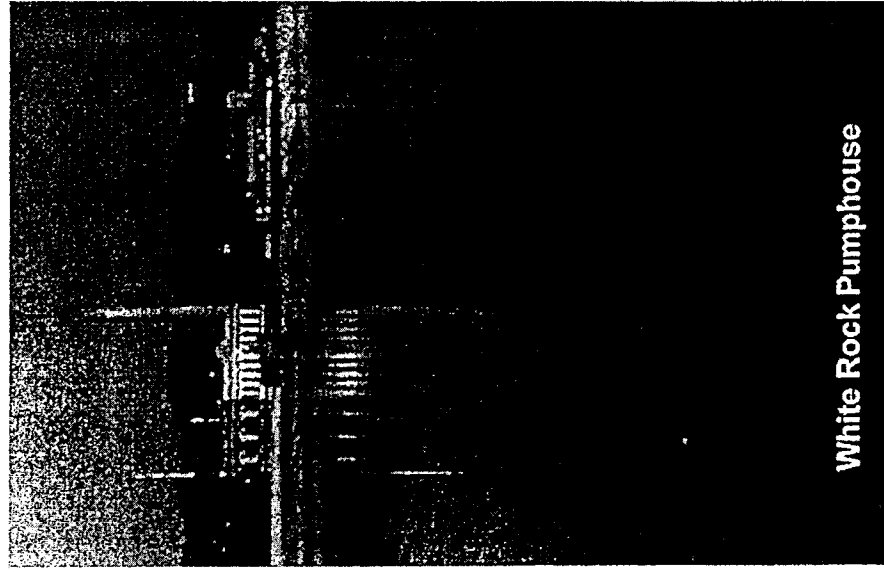




The Long Range Water Supply Plan (LRWSP)

- Since the 2005 Update to the Long Range Water Supply Plan various 2005 planning assumptions have changed
 - The 2010 Census was released, water conservation plan success, the loss of Lake Fastrill reservoir site and Oklahoma water and the adoption of environmental flow standards by the State
- Began work in Fall 2012 to update LRWSP
 - To develop population and water demand projections, evaluate existing supplies, and identify and recommend supply strategies to meet needs through 2070

Additional Studies in Support of LRWSP



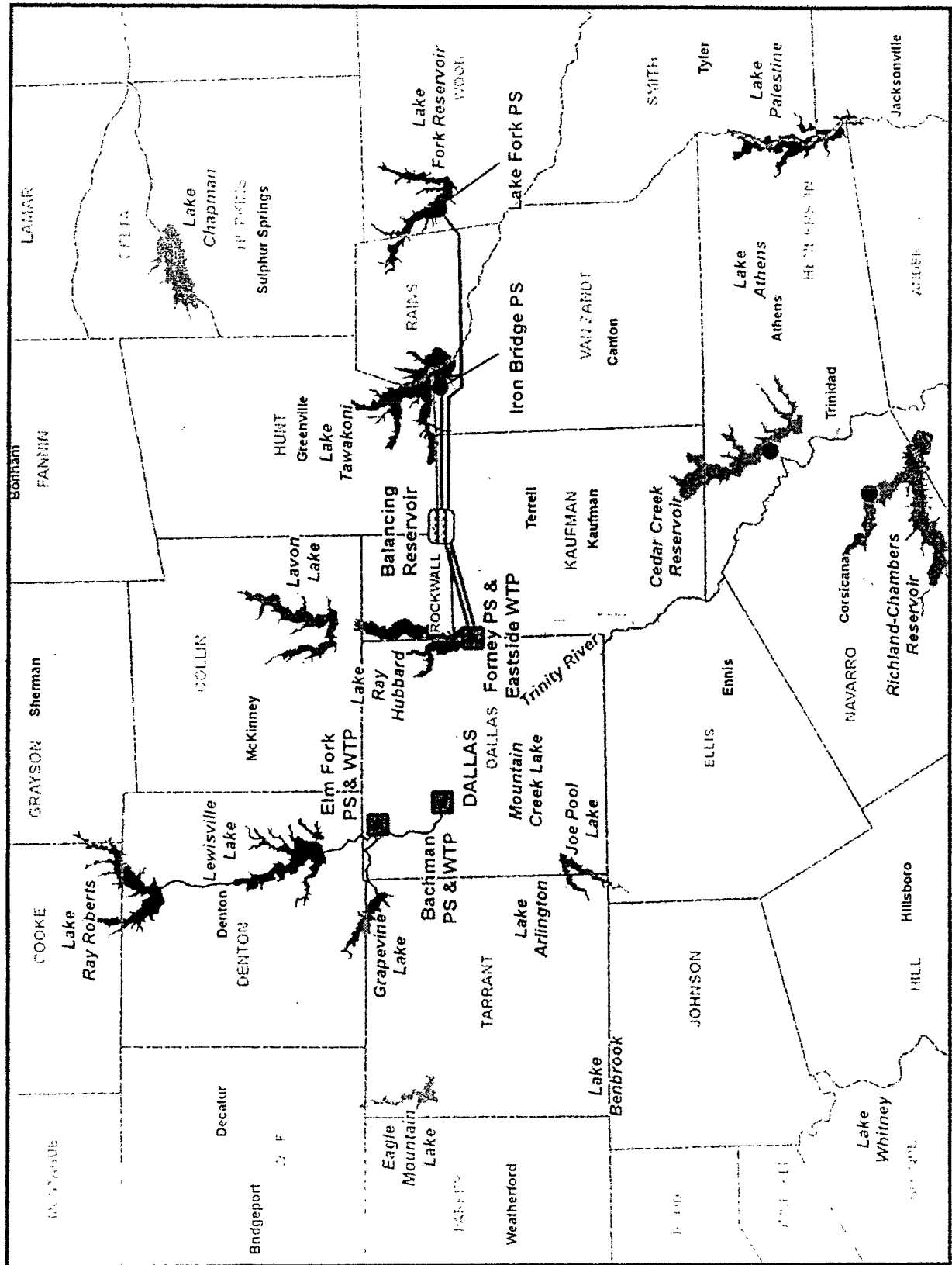
White Rock Pumphouse

- Sulphur River Basin Wide Study
 - Partnership with Sulphur River Basin Authority and four other regional partners
 - Identified combined water supply needs of partners
 - Recommendations considered in LRWSP multi level screening process
- Upper Neches River Water Supply Project (Fastrill Replacement Project)
 - Run-of-River diversions from the Neches River near the Fastrill dam site with delivery to the Integrated Pipeline (IPL) pump station at Lake Palestine
 - Recommendations considered in LRWSP multi level screening process



Long Range Water Supply Plan Demand, Supply and Needs

Dallas' Regional System Current Water Supply



Water Demand Projections

- Water Demand (gal/day) = Population¹ x GPCD²

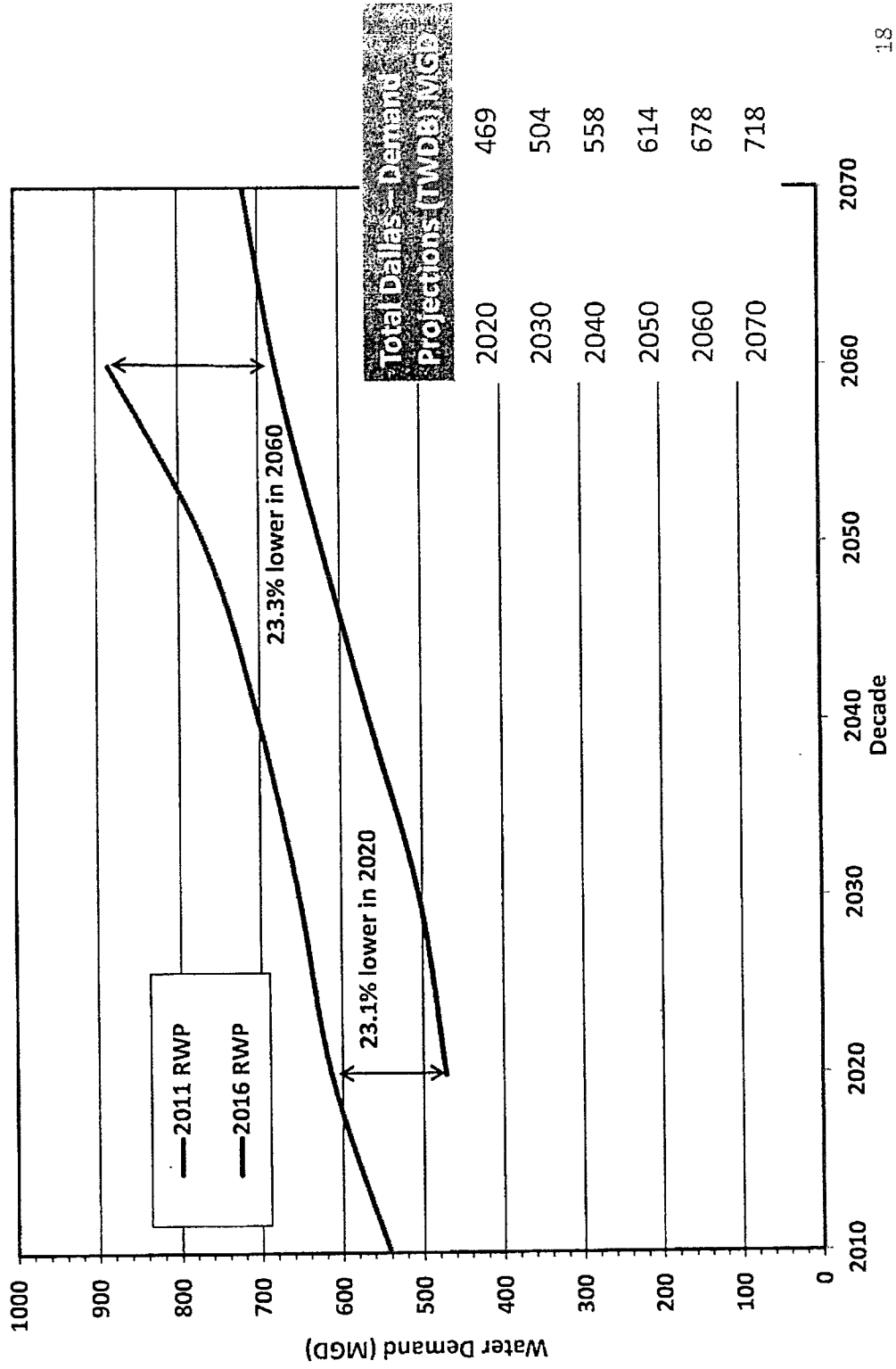
$$\text{Million Gallons Per Day(MGD)} = \frac{\text{Water Demand} \times 365}{1,000,000}$$

¹Population for Dallas and Customer Cities from TWDB, developed by State Demographer

²Gallons per Capita per Day (GPCD) for Dallas and Customer Cities from TWDB

- Population and GPCD coordinated with TWDB for consistency with regional planning
- Previous conservation savings are considered demand reduction through reduced GPCD

DWU System Average Day Water Demand Projections



Dallas' Regional Water Supply System

Summary of Dallas' Reservoir Supply Losses from Sediment and Additional Evaporation (MGD)

Reservoir	2010 Connected Supply ¹	Sediment Losses Through 2070	Additional Evaporation Losses Through 2070	2070 Connected Supply ²
Lake Grapevine	14	1	3	10
Elm Fork System				
Lake Ray Roberts	167	13	24	130
Lake Lewisville				
Elm Fork Run-of-River				
Lake Ray Hubbard	51	2	4	45
Lake Fork	111	5	16	90
Lake Tawakoni	161	7	19	135
Elm Fork Reuse ³	11	--	--	50
TOTAL	515	28	66	460
¹ 1950's drought supply assuming historical evaporation and current sediment conditions				
² 1950's drought supply assuming +7 degree increase from historical evaporation and 2070 sediment conditions				
³ Reuse Permit authorization; however, may require additional cost for long term reliability				

- Climate Change Assumption - Increase in temperature of 2°F in 2020 and increasing to 7°F in 2070
- Sedimentation Assumption – Combined average 0.093% reduction per year based on historic sedimentation identified in sediment surveys

Dallas' Regional Water Supply System with Losses

