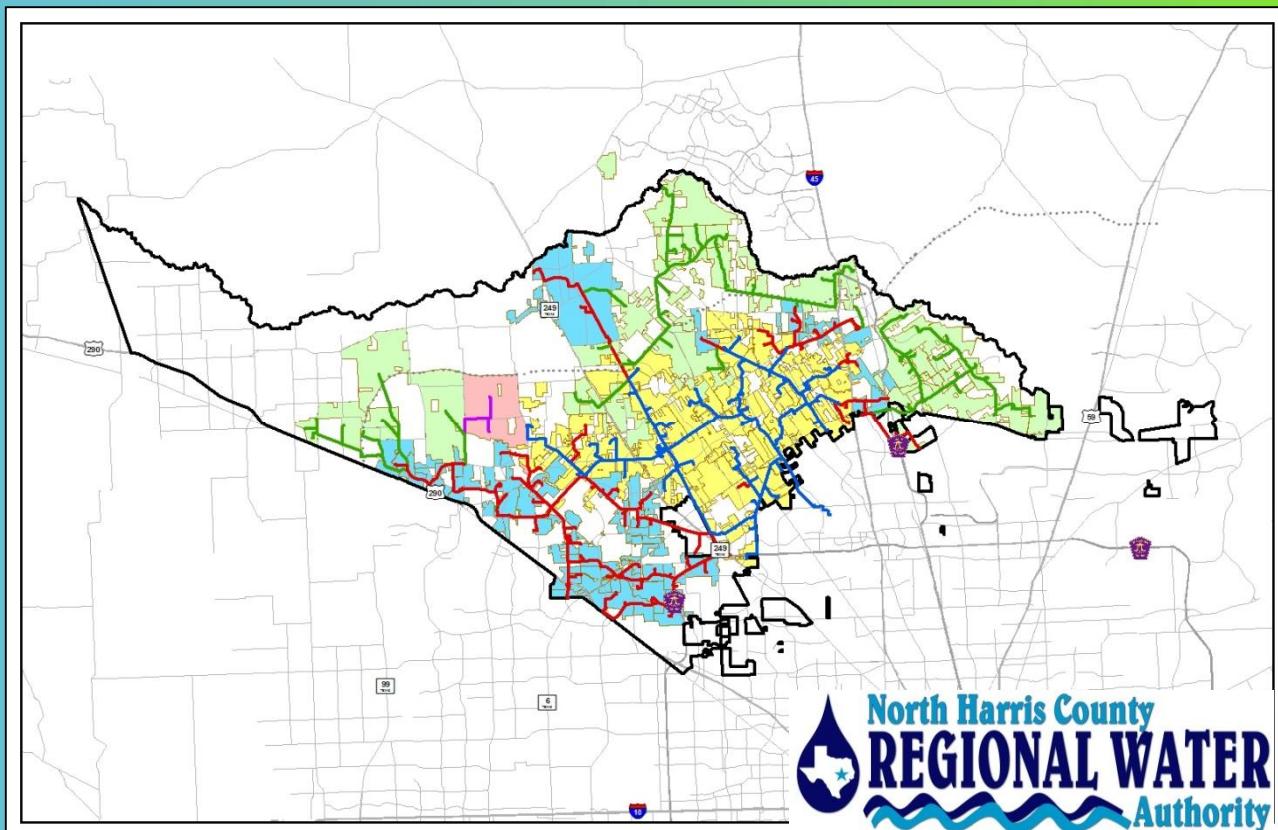


Submitted to  
Harris Galveston  
Subsidence District  
1660 Bay Area Blvd.  
Houston, TX 77058

Submitted by  
AECOM  
5444 Westheimer Dr.  
Suite 200  
Houston, TX 77056  
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# 2014 North Harris County Regional Water Authority Groundwater Reduction Plan Update (GRP14)



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## Executive Summary

The North Harris County Regional Water Authority (NHCRWA) is a governmental agency created by House Bill 2965 of the 76<sup>th</sup> Texas Legislature. One of the primary missions of the NHCRWA is to deliver an alternate water supply that reduces groundwater withdrawal by the NHCRWA's fee-paying customers and gain compliance with the mandates of the Harris-Galveston Subsidence District (HGSD). The NHCRWA has 266 political subdivisions that include cities, municipal utility districts (MUD), public utility districts (PUD), water control and improvement districts (WCID), utility districts (UD), etc., (collectively referred to as MUDs) and independent well owners. The current aggregate permit covers 502 wells. For permit year 2013, the cumulative well pumpage within the NHCRWA was over 33.6 billion gallons as reported to HGSD under a consolidated well permit.

The HGSD is a groundwater conservation district that was created for the purpose of regulating the withdrawal of groundwater in Harris and Galveston Counties to minimize land subsidence. Their 1999 District Regulatory Plan divided the district into three regulatory areas. Areas 1 and 2 have gained substantial compliance with the requirements of the plan. The NHCRWA is located in Area 3 and must meet the following regulatory schedule:

- Submit the 2014 Groundwater Reduction Plan Update (GRP14) By July 1, 2014.
- Meet 60 percent conversion to alternate water source beginning with permits issued in 2025.
- Meet 80 percent conversion to alternate water source beginning with permits issued in 2035.

The area that is within the boundary of the NHCRWA is expected to experience significant growth. The actual population and water demand for the year 2010 and projected populations and water demands for the years 2025, 2035, and 2045 are shown in the following table.

Year	Population	Water Demand (mgd)
2010	601,353	80
2025	782,337	120
2035	828,786	127
2045	867,622	133

The NHCRWA has entered into a contract with the City of Houston (COH) to buy capacity in the raw water, treatment, and transmission system facilities owned or contracted by the COH. The treated surface water source will be the Northeast Water Purification Plant (NEWPP). The contract is a long-term agreement that will satisfy the NHCRWA's requirements for an alternative source of water through at least 2040. The existing NEWPP has a capacity of 80 MGD. Currently, the NHCRWA and other co-participants are negotiating supplemental agreements to their existing long-term water supply contracts with the COH. It is anticipated that these supplemental agreements will address a phased expansion of the existing NEWPP. The existing NEWPP and these resulting expansions will operate at a relatively constant flow. It is understood that the NEWPP will maintain some minimal amounts of clearwell capacity via ground storage tanks to help with the plant operations, while the NHCRWA will provide for additional ground storage at its regional water plants that will serve to meet the fluctuating daily peak demands of its customers. The COH requires that water be metered at the point(s) at which it is taken by the NHCRWA. The NHCRWA intends to deliver water from the COH meter point to the NHCRWA's ground storage tanks. The NHCRWA will re-pressurize the water for distribution to its customers.

The NHCRWA will build its primary water distribution system within its boundary from the COH delivery points in two construction phases. The first transmission line was constructed and in service in 2009. The second phase will be constructed to meet the conversion requirements for 2025 through 2045. Rates of water consumption vary widely throughout the year. Since water consumption rates vary widely throughout the year, the NEWPP will supply water at a comparatively constant rate and peaking requirements of wholesale customers will be provided

from water sources within the NHCRWA service area. Delivery of surface water will be made into the top of the ground storage tanks for each entity served by the NHCRWA primary distribution system.

The area currently served by the existing primary distribution system is roughly bounded by SH 249 on the west, Spring Cypress Road on the north, IH 45 on the east, and FM 1960 and Bammel North Houston Road on the south. This area was chosen in the 2003 GRP primarily because of the high population density and economics of serving the area. The 2025 and 2035 service areas will spread outward from the initial service area. The NHCRWA anticipates that water reuse and over conversion may generate over-conversion credits against the total amount of surface water that must be used to achieve compliance. Alternative water conversion goals and projected cost for each phase are summarized in the table below:

	2025	2035	2045
Required HGSD Alternative Water Conversion Percentages	60%	80%	80%
Alternative Water Conversion Goals (mgd)*	72	101	106
Total Project Cost At Each Phase**	\$635,266,600	\$341,971,400	\$10,518,200

\*Alternative water conversion will be a combination of surface water, reuse water, and over-conversion credits. These conversion goals are subject to change depending on future growth within the NHCRWA.

\*\*Cost does not include interest and financing costs as well as the costs for acquiring surface water

The NHCRWA plans to continue to finance the cost of providing its infrastructure (as described in Section 4) and purchase capacity in COH raw water, treatment and transmission facilities by issuing bond anticipation notes and/or bonds and capital contributions received from utility districts located within the NHCRWA. The NHCRWA also plans to explore the possibility of financing using the loan programs available with the Texas Water Development Board. Additionally, the NHCRWA plans to pay the debt on the bonds and repayment of the capital contributions as well as operation and maintenance costs and other costs to support the NHCRWA's mission primarily from fees charged for groundwater pumped and surface water used. These fees are set by the NHCRWA Board of Directors and are adjusted as needed to provide adequate funding for NHCRWA costs.

As detailed in Section 6 , the NHCRWA through the specific provisions of the Legislation, along with the powers, rights, authority, privileges, and functions provided under Chapter 49, Texas Water Code, as amended, has full, complete and comprehensive powers and authority to prepare, implement, enforce, and manage this GRP. In regard to the implementation of this GRP, the NHCRWA has adopted a Rate Order and an Updated Pricing Policy. The NHCRWA will continue to update its Rate Order and Pricing Policy and adopt rules and regulations as necessary to appropriately implement and manage the NHCRWA GRP.

# 1 Introduction

The North Harris County Regional Water Authority (NHCRWA) has developed this 2014 Groundwater Reduction Plan Update (GRP14) to demonstrate its commitment to meeting the groundwater conversion requirements of the Harris-Galveston Subsidence District (HGSD).

## 1.1 HGSD'S 1999 District Regulatory Plan – Amended January 9, 2013

The HGSD was created in 1975 as an underground water conservation district under Article XVI, Section 59 of the Texas Constitution. The charge of the HGSD is to regulate withdrawal of groundwater in Harris and Galveston Counties for the purpose of reducing the rate of land subsidence. Regulatory procedures for the minimization of subsidence have been implemented in a series of District Regulatory Plans. The most recent plan, the 2013 District Regulatory Plan, was adopted on January 9, 2013, and amended May 8, 2013.

The previous 1999 District Regulatory Plan divided the HGSD into three Regulatory Areas (see *Exhibit 1*). The 2013 District Regulatory Plan requires that non-exempt entities within Area 3 prepare a GRP to identify how they will reduce groundwater demand with alternate sources of water according to the following requirements:

1. Groundwater withdrawals for each permittee must comprise no more than 20% of the permittee's annual total water demand during the permit year, unless the permittee is operating under a certified GRP.
2. A permittee (or a group of permittees operating under a single permit, within the same Regulatory Area) may submit a GRP to the District's Board of Directors for certification. To qualify for certification a GRP must meet the minimum requirements of this Regulatory Plan. Existing certified GRPs must incorporate any changes required by this Regulatory Plan and resubmit that plan for certification no later than July 1, 2014. Any GRP that is not amended and re-certified will remain in effect, and the original deadlines and reduction percentages will remain in place.
3. Currently, a permittee operating under a certified GRP shall be required to reduce and maintain their groundwater withdrawals to comprise no more than 70 % of the permittee's total water demand.
4. Beginning with permits issued in 2025, a permittee operating under a certified GRP shall be required to reduce and maintain their groundwater withdrawals to comprise no more than 40% of the permittee's total water demand.
5. Beginning with permits issued in 2035, and continuing thereafter, a permittee operating under a certified GRP shall be required to reduce and maintain their groundwater withdrawals to comprise no more than 20% of the permittee's total water demand.
6. A disincentive fee shall be applied to any groundwater allocation that constitutes greater than 20% of a permittee's total water demand unless the permittee is operating under and in compliance with a certified GRP.
7. A disincentive fee shall be applied to any groundwater allocation that constitutes greater than 20% of a permittee's total water demand if that permittee is not in compliance with their certified GRP.
8. Permittees who qualify for the Permit Reconciliation Process shall pay disincentive fees in accordance with that process.
9. A permittee using the water to irrigate agricultural crops, as defined in the HGSD Rules is exempted from groundwater reduction requirements and disincentive fees.

## 1.2 History of the NHCRWA

The NHCRWA was created pursuant to Chapter 1029 (H.B. 2965), Acts of the 76<sup>th</sup> Texas Legislature 1999, amended by Chapter 1296 (H.B. 1110), Acts of the 77<sup>th</sup> Texas Legislature 2001, amended by Chapter 381 (S.B. 1725) and Chapter 248 (H.B. 1541), Acts of the 78<sup>th</sup> Texas Legislature 2003, amended by chapter 1343 (S.B. 331), Acts of the 79<sup>th</sup> Texas Legislature 2005, amended by H.B. 2418, Acts of the 82<sup>nd</sup> Texas Legislature 2011, and amended by H.B. 3934, Acts of the 83<sup>rd</sup> Texas Legislature 2013 (collectively referred to as the "Legislation"), to accomplish the purposes provided by Section 59, Article XVI, Texas Constitution. A map of the NHCRWA boundaries is shown in *Exhibit 1*. The NHCRWA is located within the HGSD Regulatory Area 3. One of the NHCRWA's missions is to identify an alternate long-term supply of water for its customers to comply with the 2013 District Regulatory Plan. Copies of the house bills applicable to the NHCRWA are provided in *Appendix A*.

The GRP14 identifies the alternate water supply source. The areas within its boundaries will continue to be converted to the alternate supply to meet the HGSD GRP conversion schedule. Additionally, the GRP14 also includes other information such as the existing system, which areas will be provided surface water, infrastructure anticipated to provide the water, estimated cost to design and construct the infrastructure, method of financing the infrastructure, etc.

## 1.3 Description of the NHCRWA and Its Customers

As shown in *Exhibit 2*, the boundaries of NHCRWA are essentially US 290 on the west, the Harris County line on the north (Spring Creek), FM 1960 and Bammel North Houston on the South, and western shores of Lake Houston of the east. The NHCRWA has 266 political subdivisions within its boundaries that include municipal utility districts (MUDs) and public utility districts (PUDs), water control and improvement districts (WCIDs), fresh water supply districts (FWSDs), water supply corporations (WSCs), municipalities, etc., and independent well owners (collectively referred to as entities). Currently, there are 238 entities, with one or more permitted groundwater wells each of which is capable of producing 5 million gallons per year or more. The NHCRWA's fee-paying customers for this GRP include those entities whose cumulative annual groundwater well production is equal to or greater than 5 million gallons. Currently there are 502 wells included under the NHCWA aggregate permit.

## 2 Population and Water Demand Projections

This section discusses the sources of data for population projections and the methodology that was employed to develop water demands based on the population projections. The water demands were used to determine the quantity of water that will be converted to an alternate source in 2025, 2035, and 2045. The demands were also used to size the piping and related infrastructure for the proposed transmission and distribution systems.

### 2.1 Population Projections

The base data for the population projections used in the GRP14 included US Census Bureau's 2010 Census Block Population data, Harris County Appraisal District's (HCAD) April 2011 parcel and land use data, Freese & Nichols 2013 HGSD population projections by census block (F&N Projections), and NHCRWA redistricting data previously created by AECOM.

The F&N Projections were developed as part of the 2013 update of the HGSD Regulatory Plan. To provide the level of detail necessary to accurately project water demands in MUDs, AECOM used a methodology similar to the NHCRWA 2007 population and water demand study process, whereby population projections were further divided down into individual districts. AECOM used the F&N Projections by census block in conjunction with the HCAD April 2011 parcel and land use data to allocate population. Population was based on available developable land by decade from 2020 through 2070 into MUD boundaries and Future Areas within the NHCRWA. Future Areas are currently undeveloped or underdeveloped areas outside of existing MUD boundaries where potential growth was identified. Census Blocks were used to delineate the boundaries for these Future Areas. The F&N projections were provided in 10-year increments through the year 2070. Straight line interpolation was used to calculate population in each district and Future Area for the milestone years of 2025, 2035, and 2045. The population projections are shown in Table 1.

### 2.2 Water Demand

There are three water projection terms used in this GRP:

1. The F&N population projections and historical data will be referred to as conversion goal, signifying the development of the surface water gallons per day conversion goals for each decade through 2045.
2. The gallons per day projections for MUDs will be referred to as Water Demand Projections used in development of the distribution system network model.
3. The wholesale treated water supply contract with the COH necessary to meet the conversion goal will be referred to as the Contract Amount.

This last term will be discussed later in Section 4, Water System Alignment, Construction Schedule and Cost. Section 4 contains further discussion on the development of the 2025, 2035 and 2045 service areas.

To meet the projected surface water conversion goal for each milestone year, it was necessary to determine the overall water demands for each fee-paying customer within the NHCRWA, i.e. MUDs with a water demand of 5 million gallons per year (gpy) or greater. Water demand projections were calculated using the reallocated F&N population and historical usage data within the NHCRWA. For each district, a unique unit demand factor in gallons per capita per day (gpcd) was calculated using the reallocated projections and historical usage data. The unit demand factors were then applied to the population projections to determine annual average day water demand for each district. To calculate projected water demands for the Future Areas the average unit demand

factor for the NHCRWA total service area was applied to the projected population. The calculated average unit demand factor was 153 gpcd, based on 2010-2013 NHCRWA pumpage and surface water usage data. Known entities within the NHCRWA were projected with water demands if their cumulative year 2013 pumpages were 5.0 million gallons or greater.

Total water demand for 2025, 2035, and 2045 within the NHCRWA was determined using the F&N population projections and the average unit demand factor for the NHCRWA. The projected total average daily water demands for 2025, 2035, and 2045 shown in *Table 2*, are 120 million gallons per day (mgd), 127 mgd, and 133 mgd, respectively. The required surface water conversion volume is 30 percent of total demand from 2010 through 2024, 60 percent of total demand from 2025 through 2034, and 80 percent of total demand from 2035 and thereafter. The alternative water conversion goals shown in *Table 2* are 26.2 billion gallons in 2025, 37 billion gallons in 2035, and 38.9 billion gallons in 2045. This equates to an alternative water average daily flow of 72 mgd in 2025, 101 mgd in 2035, and 106 mgd in 2045. These annual average daily flow rates are the projected minimum flow rates necessary to meet the HGSD's requirements. The projected populations, water demands and surface water conversion goals are summarized in *Table 2*. Alternative water conversion will be a combination of surface water, reuse water, and over-conversion credits. These conversion goals are subject to change depending on actual future growth within the NHCRWA.

The 2010 service area as shown in *Exhibit 3* contains 58 wholesale customers, i.e., MUDs receiving surface water. The 2025 service area includes the 2010 service area, as shown in *Exhibit 3*, and contains 47 additional wholesale customers for a cumulative total of 105. The 2035 service area includes the 2010 and 2025 service areas, as shown in *Exhibit 3*, and contains 36 more wholesale customers for a cumulative total of 141. Lastly, the 2045 service area includes the 2010, 2025 and 2035 service areas, as shown in *Exhibit 3*, and contains one more wholesale customer for a cumulative total of 146. The water demand projections in *Table 2* are based on several factors including growth rate projections using F&N population forecast, historical pumpage data, unit demand factors. The proposed design of the transmission and distribution network is sized to accommodate future demands for the proposed water distribution system shown in *Exhibit 3*.

## 3 Water Source, Contract, and Reuse

The purposes of this section are to identify the NHCRWA's alternative water supplier, discuss the source of water, and review the provisions of the proposed water supply contract.

### 3.1 Introduction

A May 2001 report entitled *Evaluation of Recommended Water Supply Alternatives for North Harris County Regional Water Authority* by Turner Collie & Braden Inc. evaluated six alternative sources of surface water supply for NHCRWA. Three of these sources were eliminated because they were not feasible. The remaining alternative sources included the COH, the Brazos River Authority, and the Chambers-Liberty Counties Navigation District. The report recommended that the NHCRWA participate with the COH in the phased construction of the Northeast Water Purification (NEWPP) Plant to treat raw water currently owned by the COH, and associated phased construction for transmission and distribution. In addition, the NHCRWA would benefit from the greater economies of scale by obtaining its water from a larger treatment facility, which would reduce the cost per 1,000 gallons treated. The analyses were based on assumptions of costs, since no firm COH charges were available for treated water at the time of the 2003 GRP.

### 3.2 COH Surface Water System

The supplier of wholesale treated surface water to the NHCRWA is currently the COH and will continue to be through 2045. The COH and the NHCRWA have a long-term contract in which the COH provides water to the NHCRWA. In addition, the COH and NHCRWA are under negotiations on a Second Supplement to the long-term contract for the expansion of the NEWPP.

The COH began implementing a long-term surface water supply in the 1950s. It comprises raw water facilities, surface water purification plants, and a distribution system that supplies surface water to portions of Fort Bend, Harris and Galveston Counties. The implementation of the COH surface water system has been instrumental in making the conversion from groundwater to surface water possible.

In the "2011 Regional Water Plan," (Table 3-4 in this Region H report) prepared by the Region H Water Planning Group, the COH had an available surface water supply in Year 2060 for Lakes Houston and Conroe of 168,000 acre-feet per year ((ac-ft/yr) and an additional yield of 5,000 ac-ft/yr) and 1,344,000 ac-ft/yr, respectively. Most of this supply consists of water rights in Lake Conroe, Lake Houston, and Lake Livingston. The Luce Bayou Interbasin Transfer Project (ITP) will transfer Trinity River water to Lake Houston and includes building a pump station, 3 miles of mains, and 23.5 miles of open canals to convey the raw Trinity River water to Lake Houston. The COH will withdraw the water from Lake Houston, treat it and it will be used by the COH and four regional water authorities (North Harris County Regional Water Authority, West Harris County Regional Water Authority, Central Harris County Regional Water Authority and North Fort Bend Water Authority). The Luce Bayou ITP infrastructure will be sized to transfer 258,000 ac-ft/yr (230 mgd) from the Trinity River to Lake Houston by 2020, 476,000 ac-ft/yr (425 mgd) in 2040 with a maximum allowable instantaneous withdrawal at Capers Ridge Pump Station of 500 mgd (ultimate, firm). The Luce Bayou ITP is scheduled to begin delivering water by July 1, 2019. In 2045, the projected alternative water conversion goals for the NHCRWA are projected to be 106.2 mgd or 119,002 ac-ft/yr in treated surface water demands.

### 3.3 Location of Water Sources and Treatment

Treated surface water for the NHCRWA has been and will continue to be supplied from the NEWPP. The location of the plant is shown in *Exhibit 2*. The first 40-mgd module of the plant was operational in 2005 and was

expanded to 80 mgd by 2006. The NEWPP treats raw water from Lake Houston using conventional treatment processes to produce water that meets or exceeds U.S. Environmental Protection Agency and Texas Commission on Environmental Quality (TCEQ) standards for drinking water. Future expansions at the NEWPP are planned to meet the COH, NHCRWA and other water authority's needs through 2050.

### **3.4 COH and NHCRWA Contract Provisions**

The existing Water Supply Contract (the "Contract") between the COH and NHCRWA includes:

1. NHCRWA paying for a portion of the cost of the COH's existing untreated water facilities and buying capacity in the Luce Bayou ITP to ensure compliance with the HGSD's 2013 Regulatory Plan.
2. NHCRWA purchasing capacity in the COH's treatment plant and transmission facilities in sufficient quantity to ensure compliance with the HGSD's 2013 Regulatory Plan.
3. NHCRWA paying a portion of the COH's annual operation and maintenance costs of each of the above components (i.e., the untreated water facilities, treated water and transmission facilities) based on the percent of capacity purchased or volume of water used and in accordance with the formulas reflected in the Contract.
4. The option for the NHCRWA to purchase a specific capacity in the COH water facilities to serve the NHCRWA's Service Area.

A copy of the current NHCRWA Contract and current supplement and amendment with the COH can be found in *Appendix C*. NCHRWA is currently under negotiation with the COH for capacity in the expanded NEWPP and new transmission facilities. A copy of the executed documents will be submitted to the HGSD.

### **3.5 Water Conservation Effort**

The NHCRWA was established to meet the mandates for reduction of groundwater pumpage established by the HGSD. The legislation creating the NHCRWA provides authority for conservation, protection, recharge, prevention of waste of groundwater, and reduction of groundwater withdrawals. The appropriate use of reclaimed water is a viable method of reducing groundwater pumpage. The use of reclaimed water within the State of Texas is governed by regulations established by the TCEQ (30 TAC 210). These regulations provide guidance and standards for all aspects of reclaimed water-use projects including, but not limited to, authorizations, storage requirements, irrigation practices, distribution systems, quality criteria, and allowable applications. The NHCRWA's current Reuse Plan is provided in *Appendix D*. Currently only one entity is participating in this plan.

NHCRWA's Water Conservation Plan is a means of reducing long-term demand through supporting and encouraging ongoing conservation of water, primarily in regard to groundwater, for all uses. The NHCRWA's Drought Contingency Plan describes how it will respond to a drought or similar water shortage with a variety of measures to reduce peak demands and to extend its water supplies. The NHCRWA's Water Conservation Plan and Drought Contingency Plans are provided in *Appendix E* and *F*, respectively.

### **3.6 Over-Conversion**

As a result of NHCRWA's water system becoming operational seven months prior to the 2010-2011 permit year, approximately 1.8 billion gallons of over- conversion credits were earned. An additional 1.3 billion gallons of over- conversion credits have been earned in subsequent years. Where practical and possible, the NHCRWA plans to acquire additional over-conversion credits through: using alternative water in excess of the required conversion percentages; participating in the HGSD's WaterWise Programs; and purchasing over-conversion credits from other entities. These credits can in turn be used in the future as needed to offset deficit years, reduce volume of water needed to be purchased from the COH and/or to possibly postpone capital investment for water system infrastructure. The groundwater credits may also serve to balance surface water availability with total annual water demand during years of high water demand.

## 4 Water System Alignment and Costs

### 4.1 Existing Surface Water Distribution System

The existing NHCRWA surface water distribution system includes 58 wholesale customers serviced by approximately 74 miles of pipeline, a regional pump station located near Spears Road (Spears Road Regional Pump Station), a regional water plant located near Louetta Road (Louetta Regional Water Plant), and three groundwater wells. The Spears Road Regional Pump Station has a firm pump capacity of 56,000 gpm and a ground storage tank capacity of 20 MG. The Louetta Regional Water Plant has a firm capacity of 13,000 gpm and a ground storage tank capacity of 6 MG. Locations for all regional pump stations and water plants are shown in *Exhibit 3*.

The Spears Road Regional Pump Station receives its surface water supply from the NEWPP. This water is conveyed from the NEWPP through the 2010 transmission system line as shown in *Exhibit 4*.

Since the system became operational in February 2010, the NHRWA has pumped and provided an average of 10.8 billion gallons of alternate source water per year. This equates to an average of 31% of the total NHCRWA consumption per year.

### 4.2 Development of Water Distribution Network Model Parameters and Assumptions

All of the NHCRWA water lines and the firm capacity for the pump stations within the distribution system were sized for the flow projected on peak hour during the annual average peak day in the 2045 service area. The 2025, 2035, and 2045 distribution systems were modeled to ensure that adequate infrastructure was proposed for each phase of development.

As more MUDs are added to the surface water distribution system, the NHCRWA will install additional storage and pump capacity at locations within the system by providing flows from multiple directions to maximize capacities of the existing lines.

Existing customers' historical daily usage data recorded by the NHCRWA's Supervisory Control and Data Acquisition (SCADA) system were used to determine typical peak hour on peak day flows. Historical SCADA data was used to forecast peak hour on peak day flows for each development phase for the 2025, 2035, and 2045 service area customers. The surface water distribution system infrastructure were sized based on the forecasted peak hour on peak day flows in 2045. Ground storage tanks at each of the pump stations were generally designed to hold one average day of useable capacity.

Hydraulic model analysis was conducted in developing the distribution system as well as each plant's capacity. The modeling software used for the analysis was Bentley WaterGEMS V8i. Computer model inputs included pipe alignment, pipe sizes, pipe length, node data, Hazen-Williams coefficients, minor losses, and customers water plant locations within the NHCRWA. Pumps are modeled as node elements that add pressure head to the system as water passes through them. A node is a point of water demand or, in this case, water input into one or more MUDs. Node data consists of water demands, elevations, and pipe interconnections. Node elevations were taken from the Harris County Flood Control District's 5 ft by 5 ft LiDAR elevation grid flown in 2008. The maximum allowable velocity used for sizing pipe in the WaterGEMS V8i models was 6 feet per second (fps) for peak flow for all model analyses. A velocity of 6 fps or less will reduce the cost impacts of water hammer, surge suppression devices, leakage repair, thrust blocking, and other maintenance costs. A minimum system pressure of 35 pounds per square inch (psi) upstream of the NHCRWA's facilities was maintained, with NHCRWA pump station discharge pressures vary between 75 and 100 psi.

Natural ground elevations over the study area range from approximately 93 feet at the east, to 204 feet at the west end and 142 feet to the northern point of the NHCRWA boundary area. The difference in elevation greatly affects the pumping system required to deliver water to the service area. Pipe sizes were chosen to overcome pressure losses due to elevation changes, friction head losses from the motion of water over the interior surface of the pipe, and minor losses including sudden changes in flow direction, pressure lost in pipe fittings and changes in pipe size.

#### **4.3 Surface Water System**

#### **4.4 Existing Transmission System**

The NHCRWA will continue to build its primary water transmission lines from the COH delivery points to their Regional Pump Stations in phases.

The first phase of the transmission was operational in early 2010, by the COH in conjunction with the construction of the NEWPP. This transmission line delivers water from the COH's NEWPP thru a 84-inch line which terminates near the intersection of Sam Houston Toll Road (Beltway 8) and US 59 (Eastex Freeway) where it travels north and changes to a 66-inch line. The 66-inch transmission line (also known as the Greens Road Water Line) continues west until it reaches a point generally in the northeast corner of the intersection of Interstate 45 and Sam Houston Toll Road (Beltway 8), where it reduces to a 54-inch transmission line. That line was built by the NHCWRA and delivers surface water to the Spears Road Regional Pump Station's ground storage tanks.

#### **4.5 Proposed Transmission System**

A second transmission line is proposed to satisfy the 2019 through 2045 conversion requirements. In general, the proposed transmission system will also be a low-pressure system (booster pump station discharge pressure between 75 psi to 100 psi) that will deliver water through an air gap into the NHCRWA's ground storage tanks. The NHCRWA is currently negotiating a contract with the COH to purchase a portion of the capacity of this transmission pipeline. The proposed second transmission line will start at the NEWPP, and travel west until it reaches an area just south of the intersection of Sam Houston Toll Road (Beltway 8) and Interstate 45.

Beginning at the end of the 120-inch-diameter pipe at Beltway 8 and Interstate 45, the NHCRWA will construct a 84-inch pipe that will extend west in the easement of the Center Point North Belt Corridor parallel to Beltway 8 until it reaches the proposed SH 249 Regional Pump Station located in the vicinity of Texas SH 249 and Beltway 8.

Additionally, the NHCRWA will construct a 54-inch transmission line from the proposed 84-inch line to the north, as shown in *Exhibit 4*. The pipe alignment would generally extend north along the Hardy Toll Road and discharge into groundwater storage tanks at the proposed Hardy Regional Pump Station near Harris County Hardy Tollway and East Richey Rd.

The NHCRWA will also build a 36-inch line to serve as a secondary source to the Spears Road Regional Pump Station. The secondary line will be built to provide surface water to Spears Road Regional Pump Station in case of a main transmission disruption and to facilitate expansions to the system. The pipe alignment will extend along TC Jester from the NWCRWA 84-inch line to Spears Road Regional Pump Station, shown in *Exhibit 4*.

The estimate of probable total project cost for the proposed transmission system is \$142,606,300, as shown in *Table 4*. The proposed transmission lines will be in service by 2021. The location of the existing and proposed transmission lines are shown in *Exhibit 4*.

## 4.6 Proposed Distribution System

The phased construction of the 2025, 2035, and 2045 system as planned provides a supply of water to the top of the MUD's groundwater storage tanks located at the customers' water plants. The first phase of construction (2025) will build upon the existing surface water distribution system. The NHCRWA system includes construction of a flow control/metering station at the point of connection to the wholesale customer. This is included in the cost estimates for the NHCRWA system. The phased development of the proposed system is shown on Exhibit 3.

## 4.7 Operation of the Distribution System

The NHCRWA primary distribution system will provide for the alternative supply of water to meet the requirements of the 2013 HGSD District Regulatory Plan. As mentioned in Section 2, the conversion goal correlates to the F&N Population Projections, historical pumpage data, and unit demand factors to determine alternative water conversion goals. The alternative water conversion goal for 2025 is 72 mgd, as shown in *Table 2*. Historical SCADA data for MUDs receiving surface water was used to determine seasonal and daily water usage patterns for individual MUDs and for the existing distribution system. Seasonal and daily variations in water usage are important in calculating the volume of supply delivered and the necessary volume of NHCRWA storage. Customers will be added to the system incrementally to ensure that the percent conversion is achieved by the corresponding milestone year.

On a daily basis, water storage at all of the regional pump stations and water plants is necessary to equalize the delivery of water throughout high and low periods of demand. Additional storage will be provided within the NHCRWA as required in phased expansions. Throughout a 24-hour period, water will be continuously received from the COH. As demands change seasonally, adjustment of the customer's delivery rate is accomplished through the use of SCADA-controlled valves.

For daily demand patterns during average daily flow (ADF) conditions, there will be fluctuations in demand so that some hours of the day will experience demand conditions that are above ADF. This increase in demand will cause increased velocities and subsequently increased head losses for that period of time. During times of increased demand, the NHCRWA will increase its pumping rate out of its ground storage tanks to a higher level in order to continue to meet demands for a short period of time. During peak hours, the NHCRWA will draw down its ground storage tanks. However, this storage will be replenished during hours when the demand is lower.

Management oversight of all system supplies will be coordinated by the NHCRWA operator to properly meet demand. To maximize use of surface water, the annual conversion goals will be met as a result of efficient operational management to equalize water storage volumes on a daily and monthly basis. The NHCRWA will continue to closely monitor the operation of the system to ensure that the required percent conversion will be met at the end of the permit year.

## 4.8 Methodology for Locating Phased Construction

One of many factors identified in the 2003 GRP was a conversion schedule. This conversion schedule was influenced by many criteria such as providing service to certain MUDs that are experiencing water quality or quantity problems. These areas were mainly located between FM 1960 and Louetta Road and between IH 45 and SH 249. The previously proposed distribution system for the 2010 conversion requirements encompassed these areas. Another factor was to initially provide surface water to more developed and contiguous MUDs.

For the GRP14, MUDs were added based on their projected water use and their proximity to the existing system, with the goal of adding customers in the most cost effective and consolidated way. Therefore, the MUDs that had a large projected water use and were in close proximity to the existing system or a proposed distribution line were added first. If, in the process of converting a large usage MUD to the system, smaller usage MUDs were in the vicinity, these MUDs were also added to the system.

Phased construction, described below, is for report purposes only. Actual construction will be spread out over each decade prior to meeting the HGSD's conversion mandates. The estimates of probable costs that follow

were developed using construction costs for the primary distribution system built between the years of 2008 and 2013. These unit costs were adjusted to 2014 values.

#### 4.9 Year 2025 Phased Construction

The 2014 to 2025 construction phase (2025 Service Area) is proposed to include the following:

- Construction of one pump station near Harris County Hardy Tollway and East Richey Rd (Hardy Regional Pump Station),
- Construction of one pump station near Beltway 8 and SH 249 (SH 249 Regional Pump Station),
- Expansion of the Louetta Regional Water Plant station to better serve the City of Tomball and adjacent MUDs
- Installation of two groundwater wells.

The 2025 service area will include 105 MUDs with projected average daily water usage in year 2025 of 81 mgd (see *Table 3.b*). The amount of alternative water needed for the 2025 Service Area is 72 mgd to meet the conversion goal projection of 26.2 billion gallons for year 2025.

The NHCRWA Spears, SH 249, and Hardy Regional Pumps Stations will only be supplied with water from NEWPP. Modifications and expansions to the existing Louetta Regional Water Plant are also proposed for the year 2025 phased construction. The following table shows the total storage capacities for the existing and proposed pump stations for the 2025 service area:

Delivery Storage		
Location	Existing Gross Capacity (MG)	2025 Gross Capacity (MG)
Spears Regional Pump Station	20	40
SH 249 Regional Pump Station	N/A	48
Hardy Regional Pump Station	N/A	20
Louetta Regional Water Plant	6	6

The estimate of probable total project cost for the proposed pump stations, pump stations expansions, regional water plants, groundwater wells and distribution system is approximately \$492,660,300, excluding interest and financing costs as well as the costs for acquiring surface water as shown in *Table 5*.

#### 4.10 Year 2035 Phased Construction

The 2026 to 2035 construction phase (2035 Service Area) is proposed to include the following:

- Storage and pump enhancements at Spears Road Regional Pump Station, Louetta Regional Water Plant and SH 249 Regional Pump Station
- Construction of a regional water plant at a preliminary location near Telge Road and Jarris Road called the West Regional Water Plant, shown in *Exhibit 3*.
- Installation of 3 additional groundwater wells.

Future site investigations for the proposed facility will be necessary to determine the final location. In this phase, 36 additional MUDs will be added to the service area, bringing the total number of wholesale customers to 141. The projected average daily water usage for the 2035 Service Area is 116 mgd as shown in *Table 3.c*. The amount of alternative water needed for the 2035 Service Area is 101 mgd to meet the HGSD conversion goal of 37 billion gallons for permit year 2035.

In addition to the proposed West Regional Water Plant, expansions to the regional pump stations constructed in previous phases are necessary to meet the higher demand. The regional water plants will be supplied with

alternative water from the NHCRWA's three primary pump stations owned and operated by the NHCRWA. The following table shows the total storage capacities for the existing and proposed pump stations for the 2035 Service area:

<b>Delivery Storage</b>			
	Existing Gross Capacity (MG)	2025 Gross Capacity (MG)	2035 Gross Capacity (MG)
Spears Road Regional Pump Station	20	40	50
SH 249 Regional Pump Station	N/A	48	72
Hardy Regional Pump Station	N/A	20	30
Louetta Regional Water Plant	6	6	15
West Regional Water Plant	N/A	N/A	9

The estimate of probable total project cost for the pump stations expansions, storage tank expansions, proposed regional water plants, groundwater wells and distribution system is approximately \$341,971,400, excluding interest and financing costs as well as the costs for acquiring capacity in joint facilities with the COH, as shown in *Table 6*.

#### **4.11 Year 2045 Phased Construction**

The 2045 construction phase expands with 1 additional Future Area bringing the total number of wholesale customers to 148. The projected average daily water usage in 2045 Service Area is 120.8 mgd as shown in *Table 3.d*. The COH alternative water contract amount needed for the 2045 Service Area is 106 mgd to meet the HGSD conversion goal of 38.8 billion gallons for the permit year 2045.

This phase of construction does not include any new pump stations or expansions to existing water facilities. Therefore, the storage capacities will remain the same as the storage capacities for the 2035 Service Area. The estimate of probable total project cost for the proposed distribution system, as shown in *Table 7*, is \$10,518,200, excluding interest and financing costs as well as the costs for capacity in joint facilities with the COH. The NHCRWA may choose to combine the 2045 Phased Construction with the 2035 Phased Construction.

Estimate of probable total cost for the proposed transmission system and the 2025, 2035, and 2045 distribution system is \$987,756,200, excluding interest and financing costs as well as the costs for acquiring surface water, as shown in *Table 8*.

## 5 GRP Financing

Pursuant to the provisions of the NHCRWA's Creation Legislation and other legislation applicable to the NHCRWA (collectively, the "Legislation"), the NHCRWA may fund its projects through three sources: revenue notes, revenue bonds, and capital contributions received from utility districts located within the NHCRWA. Each of these funding sources is outlined below.

The NHCRWA is authorized to borrow money on negotiable notes (revenue notes) issued by the NHCRWA secured solely by revenue sources of the NHCRWA. The authorized revenue sources include tolls, charges, and fees imposed by the NHCRWA; revenue from the sale of water, water/sewer services, or any other service or product of the NHCRWA; grants and gifts; revenue from the ownership and operation of the NHCRWA's works, improvements, facilities, plants, or equipment; and revenue from contracts between the NHCRWA and any person, including a local government. To date the NHCRWA has not used revenue notes.

The second source of funding available to the NHCRWA is through the issuance of bonds secured by all or part of the revenue derived from any source, including the sources outlined above, to carry out the powers and authority of the NHCRWA pursuant to the Legislation. Bonds of the NHCRWA may be issued through a public, private, or negotiated sale. Bonds issued by the NHCRWA must be approved by the Attorney General of the State of Texas and registered by the State Comptroller's office. However, bonds or notes of the NHCRWA are not subject to review and approval by the TCEQ.

The NHCRWA has had three public bond sales, 2003, 2005 and 2008, to date totaling \$456,675,000. The term of the NHCRWA's bonds is typically 30 years. The NHCRWA also refinanced \$112,785,000 of its 2003 revenue bonds in 2013. The bond proceeds have primarily been used to pay for the NHCRWA's infrastructure and to purchase capacity in COH facilities.

The third source of funding for projects of the NHCRWA is from receipt of capital contributions from utility districts located within the NHCRWA in accordance with the provisions of the Legislation. Specifically, the Legislation requires the NHCRWA to develop procedures for cooperatively funding projects of the NHCRWA that fulfill a governmental purpose of both the NHCRWA and the participating district with funds from utility districts located within the NHCRWA. Specific procedures for utility districts to participate in funding their allocation of the costs of an NHCRWA project are also set forth in the Legislation. To date the NHCRWA has received \$83,146,035 in capital contributions which it has used to pay for its infrastructure and purchase capacity in the COH facilities. The NHCRWA is paying these contributions back monthly in the form of a credit against the fees owed NHCRWA by the entity for pumpage and cost of water fees.

The NHCRWA plans to continue to finance the cost of providing its infrastructure (as described in Section 4) and purchase capacity in COH raw water, treatment and transmission facilities by issuing bond anticipation notes and/or bonds and capital contributions received from utility districts located within the NHCRWA. The NHCRWA also plans to explore the possibility of financing using the loan programs available with the Texas Water Development Board. As has occurred to date, the bonds issued by the NHCRWA will be secured by revenue generated by fees and charges imposed by the NHCRWA for the pumpage of groundwater and the sale of treated surface water to persons, corporations, and political subdivisions of the State of Texas located inside and outside the boundaries of the NHCRWA.

The previous portion of this section focused on the funding sources used or available to NHCRWA to provide its infrastructure and purchase capacity in COH facilities. In addition to these "capital costs" the NHCRWA also has operational costs such as employee salaries, office cost, supplies, operation and maintenance of its facilities, etc.

Payment of operation and maintenance costs, bond debt and capital contributions repayments are made primarily from fees charged for groundwater pumped and surface water used. These fees are set by the NHCRWA Board of Directors and are adjusted as needed to provide adequate funding for NHCRWA costs. Currently, the groundwater fee is \$2.00/1,000 gallons and the cost of surface water is \$2.45/1,000 gallons.

## 6 Groundwater Reduction Plan Management

The NHCRWA is a governmental agency and a body politic and corporate of the State of Texas created under Section 59, Article XVI of the Texas Constitution and Chapter 49 of Texas Water Code, as amended. The NHCRWA was created pursuant to Chapter 1029 (H.B. 2965), Acts of the 76<sup>th</sup> Texas Legislature 1999, amended by Chapter 1296 (H.B. 1110), Acts of the 77<sup>th</sup> Texas Legislature 2001, amended by Chapter 381 (S.B. 1725) and Chapter 248 (H.B. 1541), Acts of the 78<sup>th</sup> Texas Legislature 2003, amended by chapter 1343 (S.B. 331), Acts of the 79<sup>th</sup> Texas Legislature 2005, amended by H.B. 2418, Acts of the 82<sup>nd</sup> Texas Legislature 2011, and amended by H.B. 3934, Acts of the 83<sup>rd</sup> Texas Legislature 2013 (collectively referred to as the "Legislation"), to accomplish the purposes provided by Section 59, Article XVI, Texas Constitution. The Legislation provides full and complete power and authority for the NHCRWA to prepare, adopt, implement, and manage a GRP that meets the requirements and mandates of the HGSD Regulatory Plan as summarized below. Copies of the Legislation can be found in *Appendix A*.

Under the provisions of such Legislation, the NHCRWA may provide for the conservation, preservation, protection, recharge, and prevention of the waste of groundwater. The NHCRWA may, for the purpose of reducing groundwater withdrawals and subsidence, acquire or develop surface water and groundwater supplies from both inside and outside its boundaries and may conserve, store, transport, treat, purify, distribute, sell, and deliver water to persons, corporations, political subdivisions, and other entities located both inside and outside the boundaries of the NHCRWA. In addition, the NHCRWA may also enter into contracts with persons, as well as political subdivisions of the State of Texas, for the performance of the rights, powers, and authority given to the NHCRWA under the Legislation.

Specifically, the Legislation provides the authority for the NHCRWA to provide for the reduction of groundwater withdrawals by the development, implementation, or enforcement of the provisions contained in the NHCRWA's GRP. In addition, a GRP that is developed, implemented, participated in, or enforced by the NHCRWA is binding on all persons, districts, entities, and wells located within the NHCRWA's boundaries. Any additional persons or districts that may want to be included in the NHCRWA's GRP may enter into a contract with the NHCRWA for such purpose.

The NHCRWA also has eminent domain authority within its boundaries to acquire property of any kind to further the authorized purposes of the NHCRWA. Eminent domain powers may also be exercised outside the boundaries of the NHCRWA to acquire land, easements, or other property for the purposes of pumping, treating, storing, and transporting water. As specified in the Legislation, the NHCRWA may not use eminent domain powers for the purpose of acquiring rights to underground water, water, or water rights. There are other limitations on the NHCRWA's power of eminent domain, which are specifically outlined in H.B. 1110.

The NHCRWA, pursuant to the Legislation, may adopt and enforce rules required to implement the provisions of the Legislation, including providing full power to establish fees and charges, with certain limitations, that are necessary to enable the NHCRWA to fulfill its regulatory obligations.

Additionally, the Legislation provides the NHCRWA with the power and authority to acquire by purchase, gift, or lease a water treatment or supply system and to design, finance, and construct a water treatment or supply system, both inside and outside of the NHCRWA boundaries. In addition, the NHCRWA also has the authority to operate, lease, or sell a water treatment or supply system that the NHCRWA has constructed or acquired and may contract with any person to operate and maintain a water treatment or supply system.

The NHCRWA may also sell, store, or reuse water or any by-product of the NHCRWA's operations under applicable provisions of the Legislation, thereby enabling the NHCRWA to purchase water from a wholesale source to sell to the MUDs and other entities located inside and outside of its boundaries.

The Legislation also provides the NHCRWA with authority to enter into a contract with any person or legal entity regarding the performance of any purpose of the NHCRWA, including a contract to jointly construct, finance, own, or operate works, improvements, facilities, plants, equipment or appliances necessary to accomplish the purposes or functions of the NHCRWA. This contractual authority includes the power to purchase or sell water or water rights.

In summary, through the specific provisions of the Legislation, along with the powers, rights, authority, privileges, and functions provided under Chapter 49, Texas Water Code, as amended, the NHCRWA has full, complete and comprehensive powers and authority to prepare, implement, enforce, and manage the GRP required by the HGSD.

The first major action by the NHCRWA in fulfilling its charge under the Legislation was the preparation and submission of its GRP to the HGSD. An initial draft GRP was submitted in July 2002 and a revised draft was submitted in October 2002. The final GRP was officially submitted to the HGSD in May 2003. In June 2003 the HGSD was certified by the HGSD Board of Directors. The certified GRP has been amended once in August 2004 to add land and redefine the boundaries of the NHCRWA.

The NHCRWA has complied with all the applicable regulatory milestones in the respective HGSD Regulatory Plan. Additionally, as noted in Section 3, the NHCRWA began conversion to surface water seven months prior to the 2010-2011 permit year.

In October 2009 the NHCRWA adopted its Rate Order and updated Pricing Policy. The Rate Order defined the requirements concerning the conversion to Authority Water (i.e. surface water). The Pricing Policy is an integral part of the Rate Order as it defines the Cost of Water to be paid the NHCRWA for Water used within the NHCRWA. The Pricing Policy was recently updated in December 2013 with the revisions to the Cost of Water becoming effective April 1, 2014. A copy of the Rate Order and Updated Pricing Policy is provided in Appendix G.

The NHCRWA will continue to adopt rules and regulations as necessary to appropriately implement and manage the NHCRWA GRP. In addition to the proposed rules and regulations, the NHCRWA, as the GRP Manager, will oversee the conversion from groundwater to surface water via the following activities: identify the service areas for the 2025 and 2035 conversion phases; identify and notify the utility districts that will be using surface water or groundwater; monitor the utility district volumes of groundwater and surface water by way of reading meters, communicating with the utility districts, and adjusting the usage to ensure compliance with the regulatory requirement; and record and document usage throughout the NHCRWA Service Area and report annually to the HGSD.

The power and authority of the NHCRWA to finance the implementation and management of the GRP are specifically outlined in Section 5.

## 7 Summary and Conclusions

This GRP demonstrates that the NHCRWA is committed to meeting the regulatory conversion requirements detailed in the 2013 HGSD Regulatory Plan. The NHCRWA has entered into a long-term agreement with the COH that will provide sufficient surface water to sustain the groundwater conversion process through at least 2040. Details of the raw water, treatment and transmission facilities are currently being negotiated with the COH.

The NHCRWA serves an area that is expected to continue its trend of rapid growth through the 2035 conversion period and beyond. Sustained growth is reflected in both the population and water demand projections. Infrastructure planning to distribute surface water to serve NHCRWA's wholesale customers is an ongoing process with flexibility to accommodate changes in growth patterns. Alternative water conversion will include a combination of the use of surface water, reuse water, and over-conversion credits. The conversion goals detailed in this GRP are subject to change depending on future growth within the NHCRWA and changes to the HGSD regulatory requirements.

Planning has occurred for the 2025, 2035 and 2045 systems and a preliminary delineation of these service areas has been made. The distribution system will expand west, north, and east to supply additional wholesale customers with surface water to meet the conversion requirements. Additional transmission lines will be constructed so that ultimately, there will be three regional pump stations and two regional water plants from which COH surface water is delivered into the NHCRWA distribution system.

The existing transmission line currently conveys surface water from the NHCRWA's delivery point to NHCRWA storage tanks at the Spears Road Regional Pump Station located on Hugh Road east of TC Jester Road. Future transmission lines will be constructed to deliver treated water from the COH to the SH 249 Regional Pump Station, generally located at Texas SH 249 and Beltway 8, and to the Hardy Regional Pump Station generally located near Harris County Hardy Tollway and East Richey Rd (Hardy). In addition, the NHCRWA will build a 36-inch line to serve a secondary source to the Spears Road Regional Pump Station. The estimate of probable project cost for the transmission system is approximately \$142.6 million, excluding interest and financing costs.

Additions to the distribution systems to meet 2025, 2035 and 2045 conversion requirements have been preliminarily identified and located (see Exhibit 3) and are estimated to have a probable cost, excluding interest and financing costs of approximately \$491.6 million, \$340.3 million, and \$10.5 million, respectively. The total for all three systems will be approximately \$842.4 million.

The total estimated probable cost of the proposed transmission system and distribution systems is \$985.0 million (in 2014 currency), excluding interest and financing costs, as well as the costs for acquiring capacity in joint facilities with the COH, as shown in Table 8.

The NHCRWA plans to continue to finance the cost of providing its infrastructure (as described in Section 4) and purchase capacity in COH raw water, treatment and transmission facilities by issuing bond anticipation notes and/or bonds and capital contributions received from utility districts located within the NHCRWA. The NHCRWA also plans to explore the possibility of obtaining financing through the use of the loan programs available with the Texas Water Development Board. The NHCRWA plans to pay the debt on the bonds and repayment of the capital contributions as well as operation and maintenance costs and other costs to support the NHCRWA's mission primarily from fees charged for groundwater pumped and surface water used. These fees are set by the NHCRWA Board of Directors and are adjusted as needed to provide adequate funding for NHCRWA costs.

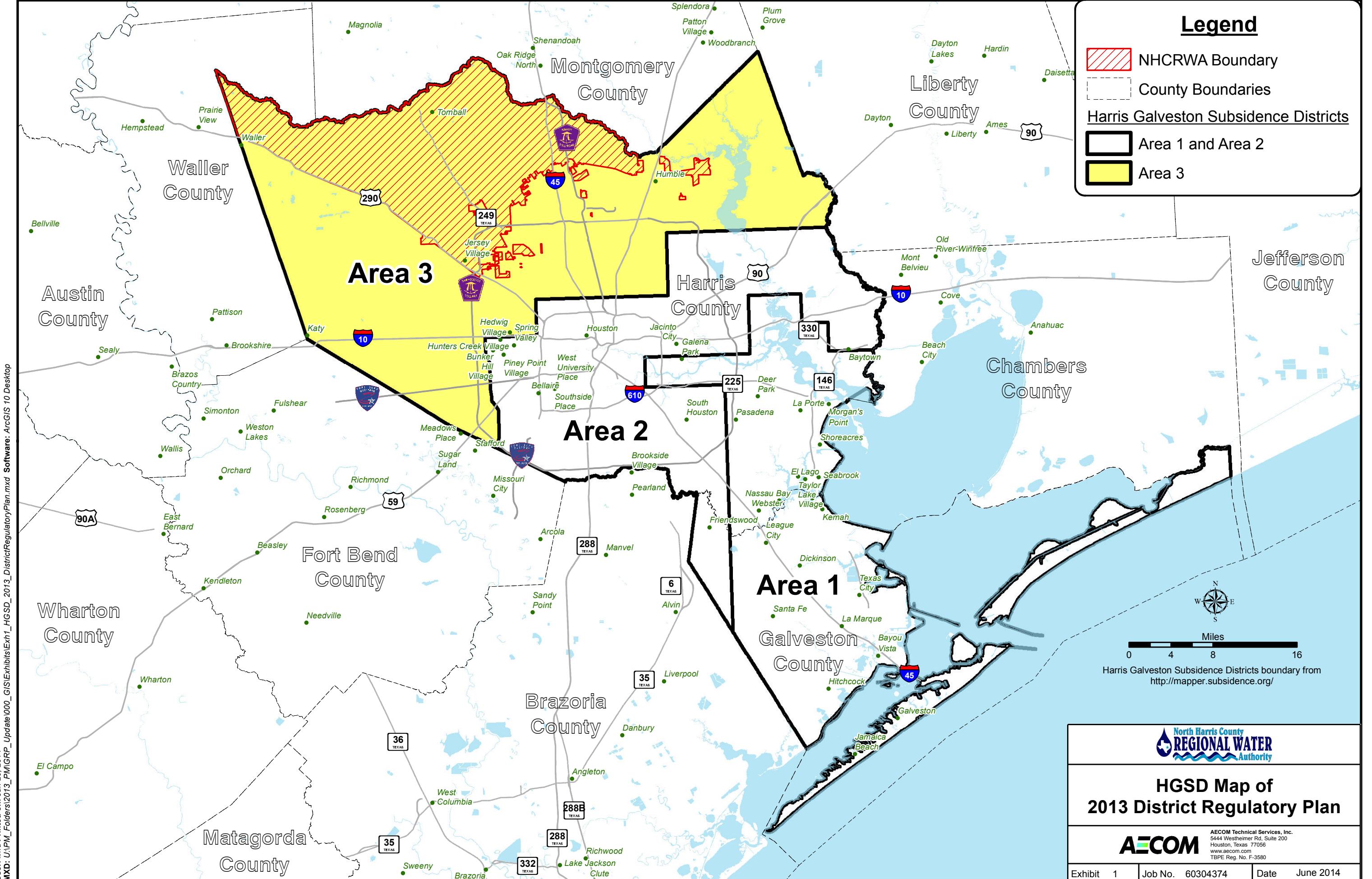
Lastly as detailed in Section 6, the NHCRWA has full, complete and comprehensive powers and authority to prepare, implement, enforce, and manage this GRP. In regard to the implementation of this GRP, the NHCRWA has adopted a Rate Order and an Updated Pricing Policy. The NHCRWA will continue to update its Rate Order and Pricing Policy and adopt rules and regulations as necessary to appropriately implement and manage the NHCRWA GRP.

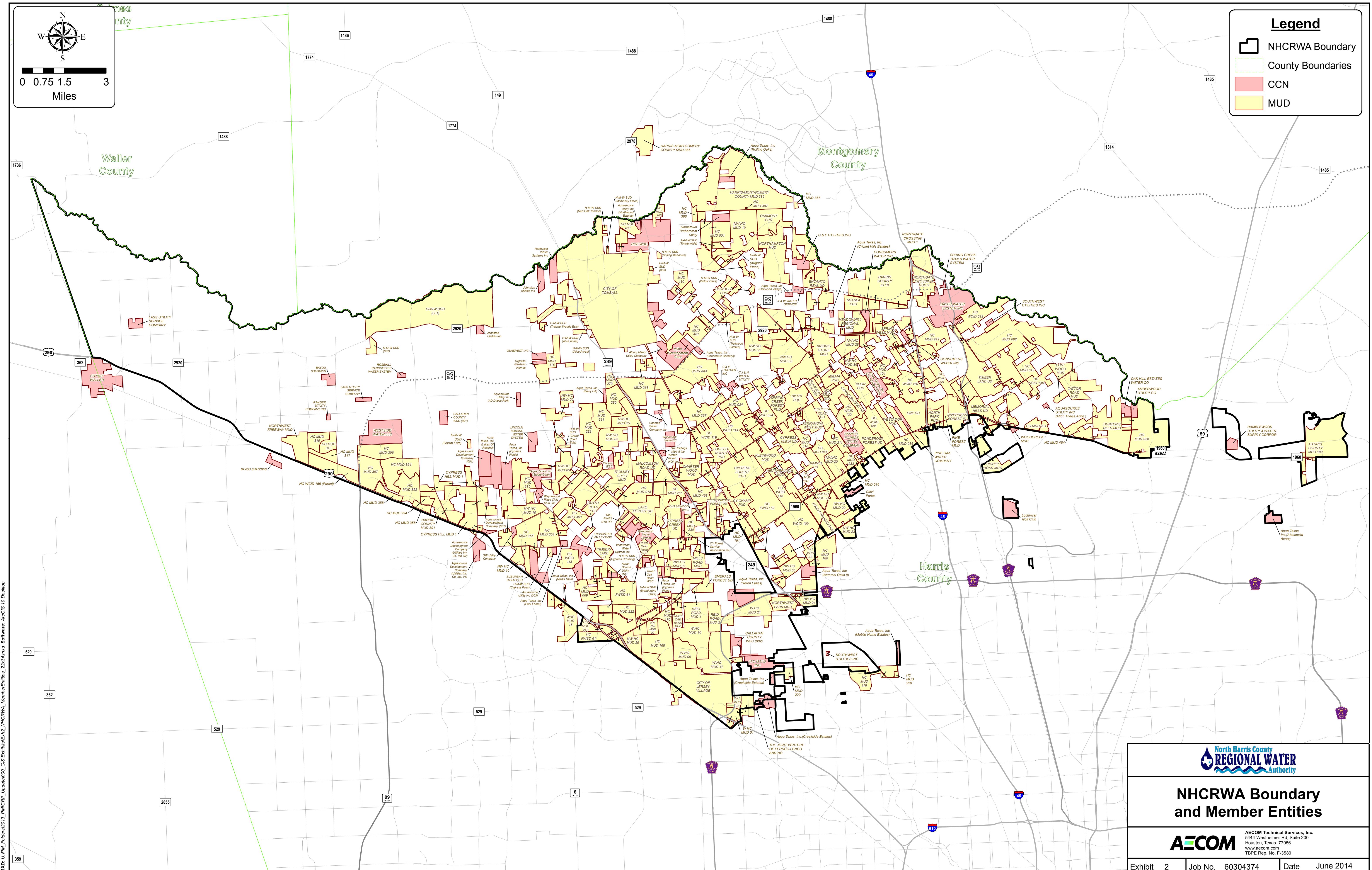
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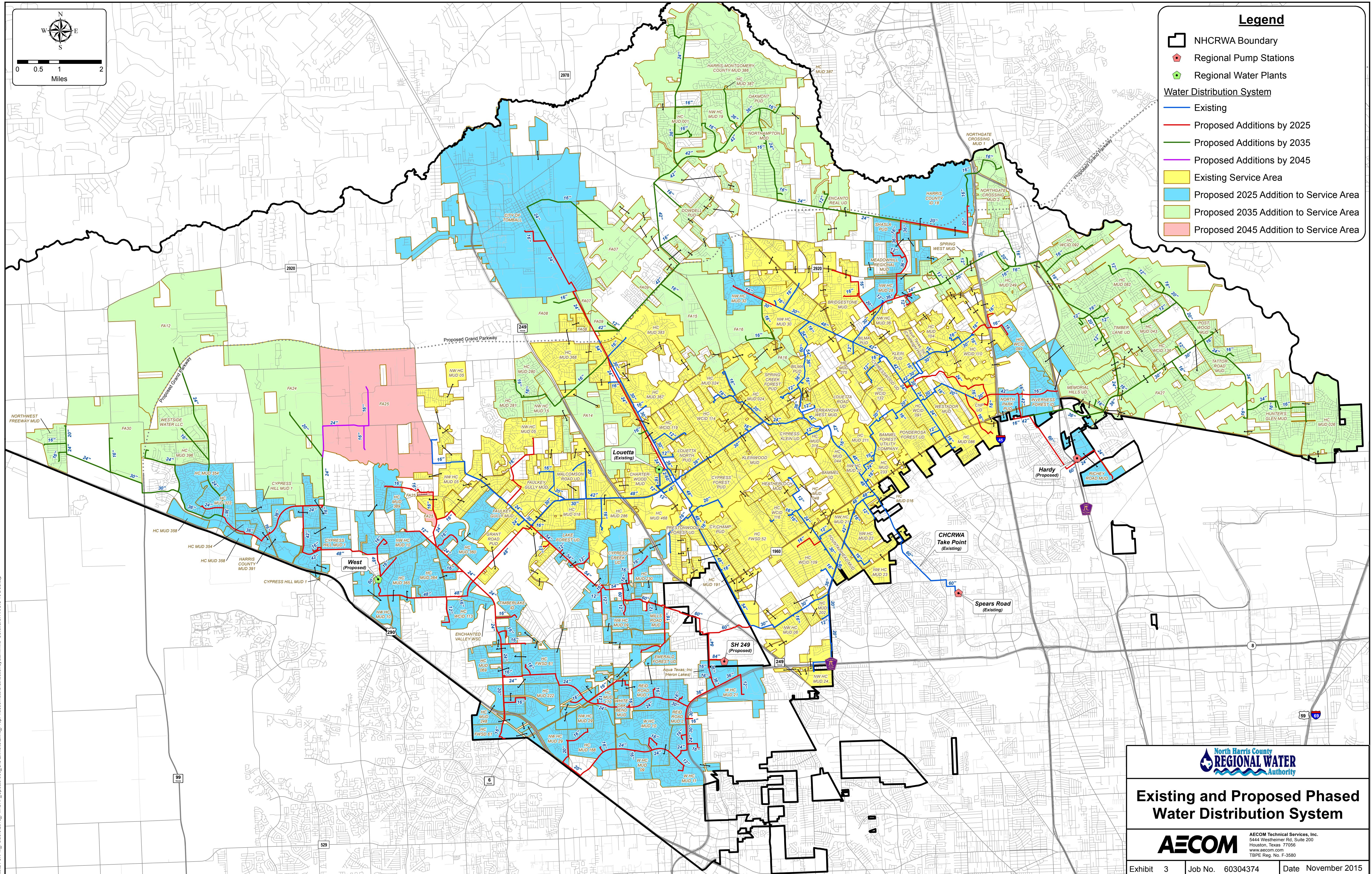




# North Harris County **REGIONAL WATER** Authority

# NHCRWA Boundary and Member Entities

**AECOM** Technical Services, Inc.  
5444 Westheimer Rd, Suite 200  
Houston, Texas 77056  
[www.aecom.com](http://www.aecom.com)  
TBPE Reg. No. F-3580



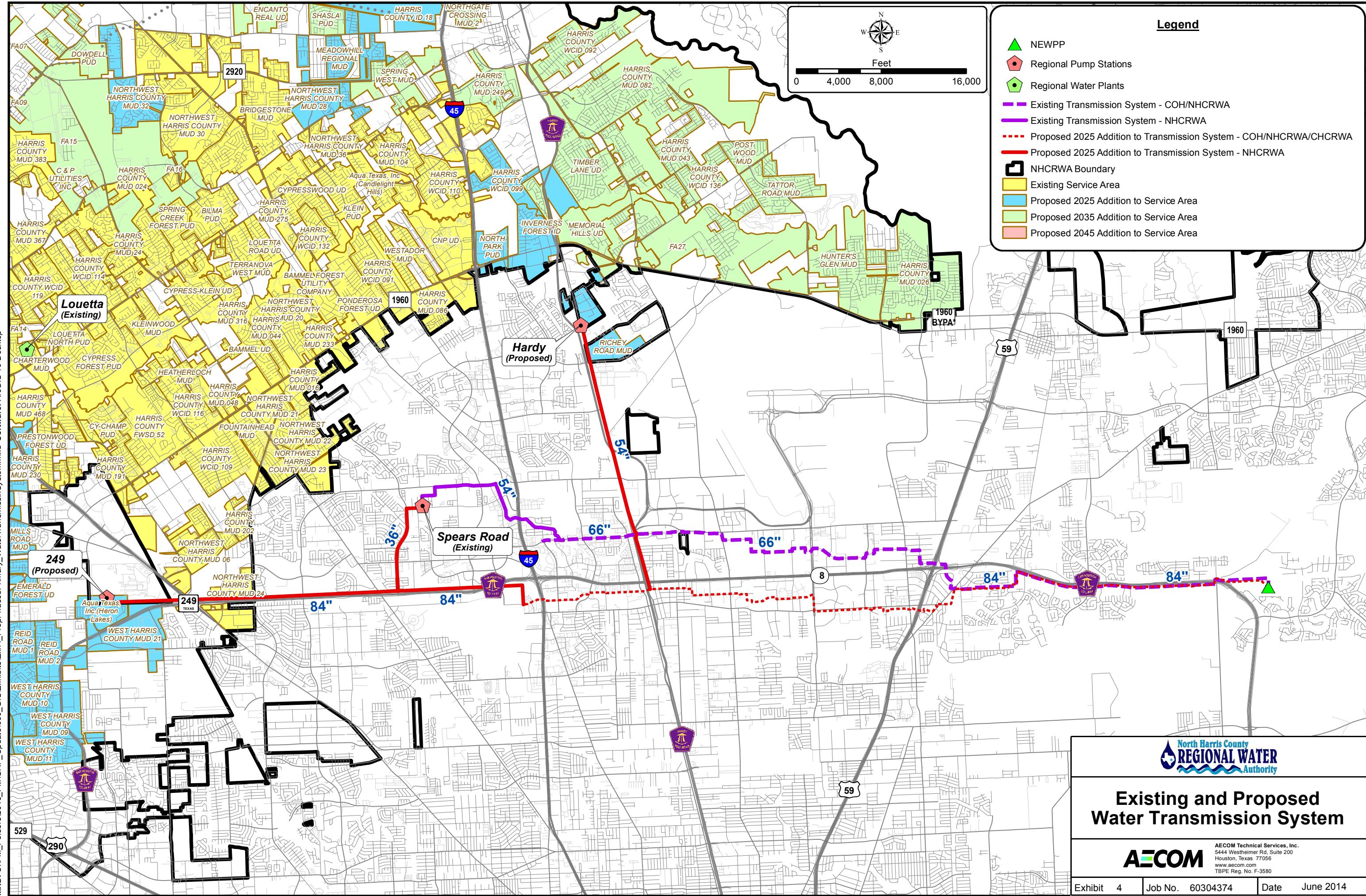


TABLE 1. POPULATION PROJECTIONS

ENTITY NAME	POPULATION		
	2025	2035	2045
ALBURY MANOR UTILITY COMPANY	274	299	321
AMBERWOOD UTILITY CO	437	453	479
Aqua Texas, Inc.(Candlelight Hills)	1,777	1,818	1,851
Aqua Texas, Inc.(Atascocita Acres)	698	705	714
Aqua Texas, Inc.(Bammel Oaks II)	571	608	634
Aqua Texas, Inc.(Berry Hill)	342	345	349
Aqua Texas, Inc.(Boudreaux Gardens)	169	185	194
Aqua Texas, Inc.(Country Club Green)	316	319	323
Aqua Texas, Inc.(Creekside Estates)	189	191	193
Aqua Texas, Inc.(Cricket Hills Estates)	107	108	109
Aqua Texas, Inc.(Cypress Fields)②	1,023	1,153	1,209
Aqua Texas, Inc.(Cypress Place)	144	145	148
Aqua Texas, Inc.(Heron Lakes)	1,228	1,248	1,266
Aqua Texas, Inc.(Lakes Of Rosehill)	881	890	901
Aqua Texas, Inc.(Marks Glen)	140	144	147
Aqua Texas, Inc.(Mobile Home Estates)	639	660	670
Aqua Texas, Inc.(Oakwood Village)	177	202	220
Aqua Texas, Inc.(Park Forest)	149	150	152
Aqua Texas, Inc.(Rolling Oaks)	494	506	514
Aqua Texas, Inc.(Stable Gate)	441	472	484
Aqua Texas, Inc.(The Estates of Willow Creek)	115	122	128
AQUASOURCE DEVELOPMENT COMPANY	16	16	16
AQUASOURCE DEVELOPMENT COMPANY (001)	721	931	1,024
AQUASOURCE DEVELOPMENT COMPANY (002)	0	0	0
AQUASOURCE DEVELOPMENT COMPANY (Utilities Inv. Co. Inc. 02)	0	0	0
AQUASOURCE UTILITY INC	196	198	200
AQUASOURCE UTILITY INC (003)	50	53	53
AQUASOURCE UTILITY INC (AD Dyess Park)	80	81	82
AQUASOURCE UTILITY INC (Alton Theiss Addn.)	30	33	37
AQUASOURCE UTILITY INC (Northwood Estates)	233	235	238
BAMMEL FOREST UTILITY COMPANY	1,570	1,585	1,608
BAMMEL UD	2,318	2,339	2,369
BAYER WATER SYSTEM INC	1,723	2,218	2,593
BAYOU SHADOWS	136	145	156
BILMA PUD	4,771	4,995	5,099
BRIDGESTONE MUD	16,876	17,582	18,198
C & P UTILITIES INC	704	748	800
CALLAHAN COUNTY WSC (001)	39	39	40
CALLAHAN COUNTY WSC (002)	1,059	1,070	1,083
CHAMPS WATER COMPANY INC	136	169	171
CHARTERWOOD MUD	5,080	5,126	5,190
CHASEWOOD WSC	8	8	9
CITY OF JERSEY VILLAGE	8,108	8,183	8,289
CITY OF TOMBALL	13,158	13,889	14,634
CITY OF WALLER	0	0	0
CMH Parks	1,428	1,441	1,460
CNP UD	8,301	8,380	8,486
CONSUMERS WATER INC	582	620	657
CY FOREST SERVICE ASSOCIATION INC	655	677	702
CY-CHAMP PUD	4,858	4,941	5,033
CYPRESS CREEK UD	2,587	2,664	2,812
CYPRESS FOREST PUD	5,407	5,558	5,690
CYPRESS GARDENS HOMES	135	136	138
CYPRESS HILL MUD 1	7,227	7,456	7,736
CYPRESS-KLEIN UD	3,226	3,286	3,357

TABLE 1. POPULATION PROJECTIONS

ENTITY NAME	POPULATION		
	2025	2035	2045
CYPRESSWOOD UD	3,963	3,999	4,050
DOWDELL PUD	5,334	5,417	5,540
EMERALD FOREST UD	5,016	5,075	5,150
ENCANTO REAL UD	1,190	1,405	1,529
ENCHANTED VALLEY WSC	409	427	460
Future Area 07	2,841	3,226	3,532
Future Area 08	1,134	1,952	2,913
Future Area 09	1,220	1,308	1,387
Future Area 12	4,391	5,923	7,286
Future Area 15	1,537	1,780	2,032
Future Area 16	3,823	4,726	5,610
Future Area 24	6,892	10,062	11,933
Future Area 25	8,593	10,403	11,824
Future Area 27	4,751	5,285	5,861
Future Area 30	3,668	5,067	5,782
FAULKEY GULLY MUD	6,507	6,615	6,746
FOUNTAINHEAD MUD	6,090	6,146	6,223
GRANT ROAD PUD	1,876	2,035	2,175
GRANTWOOD WATER SYSTEM	193	199	206
H C M U D INC	72	72	73
HARRIS COUNTY FWSD 52	3,077	3,117	3,159
HARRIS COUNTY FWSD 61	14,716	14,873	15,073
HARRIS COUNTY ID 18	6,815	7,551	7,881
HARRIS COUNTY MUD 001	4,132	4,340	4,472
HARRIS COUNTY MUD 016	3,666	3,699	3,747
HARRIS COUNTY MUD 018	3,746	3,780	3,828
HARRIS COUNTY MUD 024	9,171	9,370	9,597
HARRIS COUNTY MUD 025	0	0	0
HARRIS COUNTY MUD 026	12,932	13,111	13,332
HARRIS COUNTY MUD 043	3,998	4,035	4,087
HARRIS COUNTY MUD 044	2,177	2,205	2,238
HARRIS COUNTY MUD 048	457	494	501
HARRIS COUNTY MUD 069	3,901	3,938	3,988
HARRIS COUNTY MUD 082	10,689	11,023	11,316
HARRIS COUNTY MUD 086	2,417	2,444	2,479
HARRIS COUNTY MUD 104	3,167	3,212	3,264
HARRIS COUNTY MUD 109	9,056	9,179	9,313
HARRIS COUNTY MUD 118	665	671	680
HARRIS COUNTY MUD 168	9,997	10,099	10,237
HARRIS COUNTY MUD 170	421	425	431
HARRIS COUNTY MUD 180	269	271	275
HARRIS COUNTY MUD 191	2,592	2,640	2,674
HARRIS COUNTY MUD 202	2,355	2,376	2,406
HARRIS COUNTY MUD 211	634	657	671
HARRIS COUNTY MUD 220	830	838	849
HARRIS COUNTY MUD 222	5,036	5,087	5,159
HARRIS COUNTY MUD 230	3,854	3,910	3,983
HARRIS COUNTY MUD 231	0	0	0
HARRIS COUNTY MUD 233	422	444	455
HARRIS COUNTY MUD 248	2,629	2,655	2,689
HARRIS COUNTY MUD 249	2,312	2,366	2,421
HARRIS COUNTY MUD 273	0	0	0
HARRIS COUNTY MUD 275	350	355	359
HARRIS COUNTY MUD 280	2,538	2,561	2,593
HARRIS COUNTY MUD 281	2,826	2,854	2,895

TABLE 1. POPULATION PROJECTIONS

ENTITY NAME	POPULATION		
	2025	2035	2045
HARRIS COUNTY MUD 282	2,154	2,847	2,907
HARRIS COUNTY MUD 286	816	825	837
HARRIS COUNTY MUD 316	941	988	1,034
HARRIS COUNTY MUD 317	0	0	0
HARRIS COUNTY MUD 318	0	0	0
HARRIS COUNTY MUD 319	0	0	0
HARRIS COUNTY MUD 322	3,765	3,812	3,874
HARRIS COUNTY MUD 354	6,514	6,574	6,657
HARRIS COUNTY MUD 358	0	0	0
HARRIS COUNTY MUD 360	4,006	4,102	4,174
HARRIS COUNTY MUD 364	5,373	5,458	5,564
HARRIS COUNTY MUD 365	4,309	4,547	4,708
HARRIS COUNTY MUD 367	5,980	6,079	6,209
HARRIS COUNTY MUD 368	10,383	10,818	11,092
HARRIS COUNTY MUD 383	3,331	3,435	3,556
HARRIS COUNTY MUD 387	0	0	0
HARRIS COUNTY MUD 388	316	343	382
HARRIS COUNTY MUD 389	1,469	1,483	1,501
HARRIS COUNTY MUD 391	7,879	8,201	8,494
HARRIS COUNTY MUD 396	3,833	4,288	4,351
HARRIS COUNTY MUD 397	3,396	3,430	3,476
HARRIS COUNTY MUD 401	975	1,022	1,066
HARRIS COUNTY MUD 416	2	3	3
HARRIS COUNTY MUD 454	1	1	1
HARRIS COUNTY MUD 468	1,067	1,085	1,098
HARRIS COUNTY MUD 480	130	146	152
HARRIS COUNTY WCID 091	2,990	3,021	3,067
HARRIS COUNTY WCID 092	3,611	3,662	3,715
HARRIS COUNTY WCID 099	1,522	1,687	1,852
HARRIS COUNTY WCID 109	7,850	7,921	8,021
HARRIS COUNTY WCID 110	6,541	6,803	7,051
HARRIS COUNTY WCID 113	1,057	1,079	1,112
HARRIS COUNTY WCID 114	5,282	5,338	5,413
HARRIS COUNTY WCID 116	2,485	2,511	2,543
HARRIS COUNTY WCID 119	8,281	8,452	8,628
HARRIS COUNTY WCID 132	2,617	2,640	2,674
HARRIS COUNTY WCID 136	3,019	3,060	3,142
HARRIS COUNTY WCID 155 (Partial)	2	2	3
HARRIS-MONTGOMERY COUNTY MUD 386	13,182	14,383	15,276
HEATHERLOCH MUD	3,477	3,524	3,582
H-M-W SUD (001)	4,633	5,469	6,168
H-M-W SUD (002)	47	48	48
H-M-W SUD (003)	1	1	2
H-M-W SUD (Alice Acres)	162	175	201
H-M-W SUD (August Pines)	88	89	90
H-M-W SUD (Bilma PUD)	397	502	576
H-M-W SUD (Boudreaux Ests)	225	259	265
H-M-W SUD (Brandywine Oaks)	112	114	117
H-M-W SUD (Corral Ests)	8	14	20
H-M-W SUD (Cypress Crossing)	172	178	184
H-M-W SUD (Cypress Pass)	97	104	105
H-M-W SUD (Grand Road Ests)	87	88	89
H-M-W SUD (McKinney Place)	17	18	18
H-M-W SUD (Red Oak Terrace)	37	41	42
H-M-W SUD (Rolling Meadows)	29	43	47

TABLE 1. POPULATION PROJECTIONS

ENTITY NAME	POPULATION		
	2025	2035	2045
H-M-W SUD (Timberwilde)	177	181	185
H-M-W SUD (Tomball Industrial Park)	0	0	0
H-M-W SUD (Trailwood Estates)	396	400	405
H-M-W SUD (Treichel Woods Ests)	102	112	125
H-M-W SUD (Willow Oaks)	316	411	555
HOE WSC	1,340	1,416	1,466
HOMETOWN TIMBERCREST UTILITY	731	737	746
HUNTER'S GLEN MUD	8,976	9,129	9,284
INLINE DEVELOPMENT CORP	835	842	853
INLINE DEVELOPMENT CORPORATION	1,868	1,944	2,016
INVERNESS FOREST ID	2,215	2,269	2,332
JOHNSTON UTILITIES INC	292	304	313
KLEIN PUD	3,219	3,261	3,316
KLEINWOOD MUD	3,741	3,865	3,947
LAKE FOREST UD	5,661	5,726	5,814
LASS UTILITY SERVICE COMPANY	201	228	240
LINCOLN SQUARE WATER SYSTEM	255	300	337
Lochinvar Golf Club	0	0	0
LOUETTA NORTH PUD	4,607	4,662	4,735
LOUETTA ROAD UD	1,164	1,174	1,189
MALCOMSON ROAD UD	6,258	6,333	6,413
MEADOWHILL REGIONAL MUD	5,622	5,719	5,822
MEMORIAL HILLS UD	2,502	2,598	2,723
MILLS ROAD MUD	4,631	4,697	4,758
NORTH PARK PUD	3,316	3,346	3,388
NORTHAMPTON MUD	4,778	4,968	5,095
NORTHGATE CROSSING MUD 1	1,521	1,549	1,591
NORTHGATE CROSSING MUD 2	3,416	3,464	3,522
NORTHWEST FREEWAY MUD	2,871	2,902	2,945
NORTHWEST HARRIS COUNTY MUD 05	12,460	13,263	13,943
NORTHWEST HARRIS COUNTY MUD 06	1,941	1,958	1,983
NORTHWEST HARRIS COUNTY MUD 09	4,646	4,730	4,831
NORTHWEST HARRIS COUNTY MUD 10	6,982	7,075	7,188
NORTHWEST HARRIS COUNTY MUD 15	4,114	4,152	4,204
NORTHWEST HARRIS COUNTY MUD 19	3,107	3,290	3,404
NORTHWEST HARRIS COUNTY MUD 20	2,408	2,430	2,461
NORTHWEST HARRIS COUNTY MUD 21	1,075	1,084	1,098
NORTHWEST HARRIS COUNTY MUD 22	3,545	3,577	3,623
NORTHWEST HARRIS COUNTY MUD 23	5,003	5,048	5,113
NORTHWEST HARRIS COUNTY MUD 24	1,406	1,499	1,517
NORTHWEST HARRIS COUNTY MUD 28	1,820	1,853	1,893
NORTHWEST HARRIS COUNTY MUD 29	2,822	2,848	2,884
NORTHWEST HARRIS COUNTY MUD 30	3,338	3,403	3,483
NORTHWEST HARRIS COUNTY MUD 32	3,540	3,674	3,740
NORTHWEST HARRIS COUNTY MUD 36	1,974	2,005	2,050

TABLE 1. POPULATION PROJECTIONS

ENTITY NAME	POPULATION		
	2025	2035	2045
NORTHWEST PARK MUD	3,710	3,744	3,791
NORTHWEST WATER SYSTEMS INC	339	348	359
OAK HILL ESTATES WATER CO	606	611	619
OAKMONT PUD	3,073	3,295	3,365
PINE FOREST MUD	1,051	1,669	1,690
PINE OAK WATER COMPANY	561	578	590
PITCAIRN WSC	293	315	327
PONDEROSA FOREST UD	5,852	5,917	5,996
POST WOOD MUD	3,033	3,072	3,128
PRESTONWOOD FOREST UD	4,206	4,244	4,297
QUADVEST INC	468	515	536
RAMBLEWOOD UTILITY & WATER SUPPLY CORPOR	405	409	416
RANGER UTILITY COMPANY INC	3	4	7
REID ROAD MUD 1	6,949	7,014	7,102
REID ROAD MUD 2	3,376	3,413	3,457
RICHEY ROAD MUD	286	289	293
ROSEHILL RANCHETTES WATER SYSTEM	29	39	48
SHASLA PUD	2,187	2,208	2,237
SOUTHWEST UTILITIES INC	209	211	214
SPRING CREEK FOREST PUD	2,472	2,499	2,538
SPRING CREEK TRAILS WATER SYSTEM	23	27	34
SPRING WEST MUD	1,627	1,671	1,726
SUBURBAN UTILITY CO	801	814	829
SW UTILITY COMPANY	114	145	199
T & W WATER SERVICE	137	140	142
T J & N WATER UTILITY	287	295	302
TALL PINES UTILITY	240	250	264
TATTOR ROAD MUD	5,179	5,234	5,306
TERRANOVA WEST MUD	2,390	2,411	2,442
THE JOINT VENTURE OF FERNCO LENCO AND NO	735	742	751
TIMBER LANE UD	15,006	15,384	15,688
TIMBERLAKE ID	2,125	2,156	2,188
TOWER OAK BEND WSC	246	252	259
TOWER OAKS PLAZA MUD	869	886	900
UA HOLDINGS 1994-5 INC	0	0	0
WAYNEWOOD PLACE CIVIC ASSOCIATION (Waynewood Place Civic Club, Inc.)	229	231	234
WEST HARRIS COUNTY MUD 01	723	729	739
WEST HARRIS COUNTY MUD 09	4,507	4,548	4,605
WEST HARRIS COUNTY MUD 10	7,124	7,189	7,282
WEST HARRIS COUNTY MUD 11	6,690	6,756	6,844
WEST HARRIS COUNTY MUD 15	0	0	0
WEST HARRIS COUNTY MUD 21	106	107	108
WESTADOR MUD	3,648	3,692	3,751
WESTSIDE WATER LLC	1,552	1,881	2,084
WHITE OAK BEND MUD	1,982	2,000	2,025
WINDWOOD WATER SYSTEM INC	244	277	319
WINTERHAVEN HOMEOWNERS ASSOCIATION INCOR	186	193	195
WOODCREEK MUD	0	0	0
WOODMARK WATER LC	347	454	569
Other Future Areas	115,055	131,421	145,622
<b>TOTAL</b>	<b>782,236</b>	<b>828,681</b>	<b>867,511</b>

\*Straight line interpolation was used to calculate population in each district and future area for the milestone years

**TABLE 2. POPULATION AND WATER DEMAND PROJECTIONS, AND ALTERNATIVE WATER CONVERSION GOALS**

	2020	2025	2030	2035	2040	2045	2050
<b>Population</b>	756,893	782,337	807,780	828,786	849,791	867,622	885,452
<b>Water Demands (mgy)<sup>1</sup></b>	42,269	43,800	45,110	46,284	47,457	48,452	49,448
<b>Water Demands (mgd)<sup>1</sup></b>	116	120	124	127	130	133	135
<b>Required HGSD 2013 GRP Alternative Water Conversion Percentages</b>	30%	60%	60%	80%	80%	80%	80%
<b>Alternative Water Conversion Goals (mgy)<sup>2</sup></b>	12,681	26,214	27,066	37,027	37,965	38,762	39,558
<b>Alternative Water Conversion Goals (mgd)<sup>2</sup></b>	35	72	74	101	104	106	108

1. mgy: million gallons per year; mgd: million gallons per day

2. Alternative water conversion will be a combination of surface water, reuse water, and credits. These conversion goals are subject to change depending on future growth within the NHCRWA.

**TABLE 3.a. WATER DEMANDS FOR THE 2010 SERVICE AREA**

OWNER	2012-2013 Permit Year Useage (gpd) <sup>1</sup>	2025 (gpd)	2035 (gpd)	2045 (gpd)
<b>58 WHOLESALE CUSTOMERS IN THE CURRENT SERVICE AREA</b>				
Aqua Texas, Inc (Candlelight Hills)	303,847	271,873	278,201	283,203
Bammel UD	359,975	380,108	383,556	388,474
Bilma PUD	822,132	973,197	1,018,955	1,040,115
Bridgestone MUD	1,899,288	2,295,089	2,391,099	2,474,938
Charterwood MUD	637,351	726,421	733,010	742,239
City of Jersey Village <sup>2</sup>	1,568,534	1,653,986	1,669,330	1,691,036
CNP UD	917,613	1,311,568	1,324,007	1,340,863
Cy-Champ PUD	810,636	888,925	904,290	920,953
Cypress Creek UD	474,066	499,220	514,218	542,622
Cypress Forest PUD	1,371,671	1,503,114	1,545,087	1,581,868
Cypress-Klein Ud & HCMUD 16	788,378	845,843	867,654	865,377
Cypresswood UD	261,193	273,472	275,953	279,427
Faulkey Gully MUD	1,386,616	1,535,705	1,561,123	1,592,142
Fountainhead MUD	457,159	475,254	479,676	471,123
Grant Road PUD	481,529	532,645	578,040	617,739
Harris County MUD 016	460,170	553,511	558,612	565,766
Harris County MUD 018	620,414	681,821	688,005	696,667
Harris County MUD 024	1,526,712	1,779,184	1,817,733	1,861,828
Harris County MUD 044	336,658	330,854	335,155	340,213
Harris County MUD 086	616,044	759,086	767,431	778,344
Harris County MUD 104	505,222	541,642	549,258	558,201
Harris County MUD 191	618,723	684,188	696,912	705,827
Harris County MUD 202	348,060	369,690	373,043	377,740
Harris County MUD 233 & 211	268,537	365,262	381,193	380,360
Harris County MUD 275	110,575	116,236	117,839	119,322
Harris County MUD 286	569,721	597,915	604,382	613,494
Harris County MUD 367 & 383	2,021,123	2,271,942	2,321,375	2,314,927
Harris County MUD 368	939,115	1,069,459	1,114,225	1,142,476
Harris County MUD 468	398,466	612,472	622,536	630,374
Harris County WCID 091	272,696	287,026	290,045	294,413
Harris County WCID 109 (SI with Harris County MUD 48)	1,411,353	1,483,591	1,497,048	1,515,896
Harris County WCID 110	803,068	1,360,547	1,415,036	1,466,698
Harris County WCID 114	945,792	998,236	1,008,958	1,023,085
Harris County WCID 116 & FWSD 52	696,603	745,299	754,159	753,230
Harris County WCID 119	904,281	985,437	1,005,752	1,026,773
Harris County WCID 132	845,101	887,041	895,087	906,356
Heatherloch MUD	556,101	587,536	595,489	605,432
Klein PUD	564,134	592,257	599,940	610,207
Kleinwood MUD	742,658	826,695	854,162	872,232

**TABLE 3.a. WATER DEMANDS FOR THE 2010 SERVICE AREA**

OWNER	2012-2013 Permit Year Useage (gpd) <sup>1</sup>	2025 (gpd)	2035 (gpd)	2045 (gpd)
<b>58 WHOLESALE CUSTOMERS IN THE CURRENT SERVICE AREA<sup>2</sup> (Continued )</b>				
Louetta North PUD	544,978	575,868	582,728	591,840
Malcomson Road UD	1,101,126	1,170,279	1,184,299	1,199,210
Mills Road MUD	473,893	500,132	507,235	513,875
Northwest Harris County MUD 05	2,230,877	2,965,588	3,156,633	3,318,500
Northwest Harris County MUD 06	172,515	180,499	182,136	184,429
Northwest Harris County MUD 20	443,137	471,945	476,330	482,408
Northwest Harris County MUD 21 & 22	537,079	563,640	568,642	575,962
Northwest Harris County MUD 23	427,134	510,273	514,901	521,494
Northwest Harris County MUD 24	231,258	295,352	314,691	318,653
Northwest Harris County MUD 30	594,586	650,852	663,556	679,271
Northwest Harris County MUD 36	396,411	432,345	439,037	448,844
Ponderosa Forest UD (SI with Bammel Forest Util. Co.)	1,085,699	959,694	970,326	983,349
Prestonwood Forest UD	671,537	710,782	717,229	726,259
Spring Creek Forest PUD	440,926	467,254	472,324	479,713
Terranova West MUD & Louetta Rd. UD	658,975	736,034	742,710	752,061
Westador MUD	743,044	788,060	797,560	810,114
<b>CURRENT S.A.<sup>3</sup> Total (gpd)</b>	<b>40,374,489</b>	<b>45,631,941</b>	<b>46,677,910</b>	<b>47,577,962</b>
<b>CURRENT S.A. Total (mgd)</b>	<b>40.4</b>	<b>45.6</b>	<b>46.7</b>	<b>47.6</b>

1. Water used during the 2012-2013 permit year (September 1, 2012 through August 31, 2013)

2. City of Jesery Village (COJV) receives its water directly from the City of Houston but COJV is within the NHCRWA's boundary and therefore receives

3. S.A.: Service Area, SI: System Interconnect

**TABLE 3.b. WATER DEMANDS FOR THE 2025 SERVICE AREA**

OWNER	2012-2013 Permit Year Useage (gpd) <sup>1</sup>	2025 (gpd)	2035 (gpd)	2045 (gpd)
<b>47 WHOLESALE CUSTOMERS ADDED BETWEEN YEARS 2014 TO 2025</b>				
Aqua Texas, Inc. (Heron Lakes)	N/A	347,922	353,531	358,619
City of Tomball	N/A	2,731,026	2,882,611	3,037,363
Cypress Creek UD	N/A	499,220	514,218	542,622
Cypress Hill MUD 1	N/A	1,315,251	1,356,914	1,408,013
Enchanted Valley WSC	N/A	59,982	62,658	67,484
Emerald Forest UD	N/A	727,320	735,875	746,750
Harris County FWSD 61 & MUD 248	N/A	2,514,957	2,541,535	2,526,437
Harris County MUD 069	N/A	413,528	417,391	422,703
Harris County MUD 168	N/A	1,119,623	1,131,043	1,146,556
Harris County MUD 170	N/A	198,658	200,460	203,238
Harris County MUD 222	N/A	644,581	651,176	660,335
Harris County MUD 230	N/A	766,853	778,161	792,619
Harris County MUD 249	N/A	524,855	537,192	549,554
Harris County MUD 358 <sup>2</sup> , 322, 354, & 396	N/A	3,415,256	3,551,184	3,546,344
Harris County MUD 360	N/A	917,301	939,452	955,775
Harris County MUD 364 & 365	N/A	1,849,226	1,910,966	1,905,860
Harris County MUD 389	N/A	185,148	186,828	189,180
Harris County MUD 391	N/A	1,110,945	1,156,365	1,197,640
Harris County WCID 099	N/A	298,342	330,629	363,034
Harris County WCID 109 <sup>3</sup>	N/A	1,483,591	1,497,048	1,515,896
Harris County WCID 113	N/A	163,806	167,174	172,308
Inverness Forest ID	N/A	276,835	283,614	291,454
Lake Forest UD	N/A	911,447	921,870	935,979
Meadowhill Regional MUD & Northwest	N/A	729,340	742,146	740,667
Harris County MUD 28				
Mills Road MUD	N/A	500,132	507,235	513,875
North Park PUD	N/A	567,014	572,157	579,361
Northwest Harris County MUD 09	N/A	887,365	903,376	922,643
Northwest Harris County MUD 10	N/A	1,417,344	1,436,240	1,459,073
Northwest Harris County MUD 29	N/A	575,649	581,085	588,401
Northwest Harris County MUD 32	N/A	803,618	833,944	848,957
Reid Road MUD 1	N/A	750,511	757,514	767,051
Reid Road MUD 2	N/A	526,715	532,365	539,216
Richey Road MUD	N/A	1,503,539	1,517,177	1,536,279
Shasla PUD	N/A	404,562	408,445	413,877
Spring West MUD	N/A	322,231	330,805	341,756
Timberlake ID	N/A	1,406,881	1,427,151	1,448,540

**TABLE 3.b. WATER DEMANDS FOR THE 2025 SERVICE AREA**

OWNER	2012-2013 Permit Year Usage (gpd) <sup>1</sup>	2025 (gpd)	2035 (gpd)	2045 (gpd)
<b>47 WHOLESALE CUSTOMERS ADDED BETWEEN YEARS 2014 TO 2025 (Continued)</b>				
West Harris County MUD 09	N/A	360,533	363,803	368,383
West Harris County MUD 10	N/A	1,075,681	1,085,599	1,099,510
West Harris County MUD 11	N/A	1,083,735	1,094,517	1,108,652
West Harris County MUD 21	N/A	520,551	525,272	531,886
White Oak Bend MUD	N/A	247,770	250,017	253,165
2025 Incremental Sum (gpd)	N/A	36,158,846	36,976,745	37,597,054
2010 S.A. Total (gpd)	40,374,489	45,631,941	46,677,910	47,577,962
2010 + 2025 S.A. <sup>4</sup> Total <sup>5</sup> (gpd)	40,374,489	81,790,787	83,654,655	85,175,017
<b>2010 + 2025 S.A. Total (mgd)</b>	<b>40.4</b>	<b>81.8</b>	<b>83.7</b>	<b>85.2</b>
1. Water used during the 2012-2013 permit year (September 1, 2012 through August 31, 2013)				
2. NHCRWA will connect and supply water to one of the two water treatment plants in this MUD during this time period				
3. NHCRWA will connect and supply water to the second of three water treatment plants in this MUD during this time period				
4. S.A.: service area				
<b>5. Total wholesale customers = 105</b>				

**TABLE 3.c. WATER DEMANDS FOR THE 2035 SERVICE AREA**

OWNER	2012-2013 Permit Year Useage (gpd) <sup>1</sup>	2025 (gpd)	2035 (gpd)	2045 (gpd)
<b>36 WHOLESALE CUSTOMERS ADDED BETWEEN YEARS 2026 TO 2035</b>				
Dowdell PUD	N/A	N/A	612,105	625,980
Encanto Real UD	N/A	N/A	167,227	181,991
FA07 <sup>2</sup>	N/A	N/A	493,599	540,452
FA08	N/A	N/A	298,655	445,733
FA09	N/A	N/A	200,170	212,140
FA12	N/A	N/A	906,224	1,114,743
FA14	N/A	N/A	965,449	1,035,057
FA15	N/A	N/A	272,366	310,964
FA16	N/A	N/A	723,057	858,318
FA24	N/A	N/A	1,539,552	1,825,811
FA27	N/A	N/A	808,533	896,669
FA30	N/A	N/A	775,185	884,593
Harris County ID 18	N/A	N/A	1,374,216	1,368,087
Harris County MUD 001	N/A	N/A	1,071,869	1,104,646
Harris County MUD 026	N/A	N/A	1,193,073	1,213,223
Harris County MUD 043	N/A	N/A	427,699	433,254
Harris County MUD 082	N/A	N/A	1,080,292	1,109,006
Harris County MUD 280, 281, & Northwest	N/A	N/A	1,262,738	1,279,273
Harris County MUD 15				
Harris County MUD 358 <sup>3</sup> , 322, 354, & 396	N/A	N/A	3,551,184	3,546,344
Harris County MUD 387 & Harris Montgomery County MUD 386	N/A	N/A	6,673,655	6,624,266
Harris County WCID 092	N/A	N/A	527,258	534,898
Harris County WCID 136	N/A	N/A	257,047	263,922
Hunter's Glen MUD	N/A	N/A	730,316	742,735
Memorial Hills UD	N/A	N/A	340,347	356,756
Northampton MUD	N/A	N/A	1,281,814	1,314,431
Northgate Crossing MUD 2 & Northgate Crossing MUD 1	N/A	N/A	676,741	675,235
Northwest Freeway MUD	N/A	N/A	261,214	265,049
Northwest Harris County MUD 19	N/A	N/A	835,638	864,524
Oakmont PUD	N/A	N/A	876,503	895,202
Post Wood MUD	N/A	N/A	288,734	294,063
Tattor Road MUD	N/A	N/A	497,204	504,025
Timber Lane UD	N/A	N/A	399,990	407,877
Westside Water LLC	N/A	N/A	942,182	1,043,869
2035 Incremental Sum (gpd)	N/A	N/A	32,311,835	33,773,132
2010 + 2025 S.A. Total (gpd)	40,374,489	81,790,787	83,654,655	85,175,017
2010 + 2025 + 2035 S.A. <sup>4</sup> Total <sup>5</sup> (gpd)	40,374,489	81,790,787	115,966,490	118,948,149
<b>2010 + 2025 + 2035 S.A Total (mgd)</b>	<b>40.4</b>	<b>81.8</b>	<b>116.0</b>	<b>118.9</b>

**TABLE 3.c. WATER DEMANDS FOR THE 2035 SERVICE AREA**

OWNER	2012-2013 Permit Year Usage (gpd) <sup>1</sup>	2025 (gpd)	2035 (gpd)	2045 (gpd)
<p>1. Water used during the 2012-2013 permit year (September 1, 2012 through August 31, 2013)</p> <p>2. FA: future area</p> <p>3. NHCRWA will connect and supply water to the second of two water treatment plants in this MUD during this time period. These MUDs are not included in the wholesale customer total for this phase.</p> <p>4. S.A.: service area</p> <p><b>5. Total wholesale customers = 141</b></p>				

**TABLE 3.d. WATER DEMANDS FOR THE 2045 SERVICE AREA**

OWNER	2012-2013 Permit Year Useage (gpd) <sup>1</sup>	2025 (gpd)	2035 (gpd)	2045 (gpd)
<b>1 WHOLESALE CUSTOMER ADDED BETWEEN YEARS 2036 TO 2045<sup>2</sup></b>				
FA25 <sup>2</sup>	N/A	N/A	N/A	1,809,068
2045 Incremental Sum (gpd)	N/A	N/A	N/A	1,809,068
2010 + 2025 + 2035 S.A Total (gpd)	40,374,489	81,790,787	115,966,490	118,948,149
2010 + 2025 + 2035 + 2045 S.A. <sup>3</sup> Total <sup>4</sup> (gpd)	<b>40,374,489</b>	<b>81,790,787</b>	<b>115,966,490</b>	<b>120,757,217</b>
<b>2010 + 2025 + 2035 + 2045 S.A Total (mgd)</b>	<b>40.4</b>	<b>81.8</b>	<b>116.0</b>	<b>120.8</b>
1. Water used during the 2012-2013 permit year (September 1, 2012 through August 31, 2013)				
2. FA: future area				
3. S.A.: service area				
<b>4. Total wholesale customers = 142</b>				

**TABLE 4. PROPOSED WATER TRANSMISSION'S SYSTEM ESTIMATE OF PROBABLE COST**

<b>Open Cut Trench Construction</b>				
<b>Pipeline Diameter</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Units</b>	<b>Cost</b>
12"	\$ 135	-	LF	\$ -
16"	\$ 155	-	LF	\$ -
20"	\$ 170	-	LF	\$ -
24"	\$ 225	-	LF	\$ -
30"	\$ 395	-	LF	\$ -
36"	\$ 405	6,246	LF	\$ 2,529,600
42"	\$ 420	-	LF	\$ -
48"	\$ 430	-	LF	\$ -
54"	\$ 535	24,347	LF	\$ 13,025,800
60"	\$ 620	-	LF	\$ -
84"	\$ 1,085	28,984	LF	\$ 31,448,100
<b>Subtotals</b>		<b>59,577</b>		<b>\$ 47,003,500</b>
<b>Trenchless Construction</b>				
<b>Pipeline Diameter</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Units</b>	<b>Cost</b>
12"	\$ 180	-	LF	\$ -
16"	\$ 270	-	LF	\$ -
18"	\$ 385	-	LF	\$ -
20"	\$ 515	-	LF	\$ -
24"	\$ 595	-	LF	\$ -
30"	\$ 740	-	LF	\$ -
36"	\$ 955	3,624	LF	\$ 3,460,500
42"	\$ 1,035	-	LF	\$ -
48"	\$ 1,230	-	LF	\$ -
54"	\$ 1,420	2,508	LF	\$ 3,562,100
60"	\$ 1,805	-	LF	\$ -
84"	\$ 4,080	8,695	LF	\$ 35,476,900
<b>Subtotals</b>		<b>14,827</b>		<b>\$ 42,499,500</b>
	<b>Total LF</b>	<b>74,405</b>		
<b>Sub Total Pipe Cost</b>				<b>\$ 89,503,000</b>
<b>Construction Cost Contingency</b>	20%	\$ 89,503,000	\$	\$ 17,900,600
			<b>Total Pipe Cost</b>	<b>\$ 107,403,600</b>
<b>Engineering and Legal Cost</b>				
<b>Pipeline</b>	25%	\$ 107,403,600	\$	\$ 26,850,900
<b>Land Acquisition</b>				
<b>Right-of-Way Pipeline</b>	\$ 200	41,406	LF	\$ 8,281,300
<b>Environmental &amp; Archaeology Studies and Mitigation</b>				
<b>Pipeline</b>	\$ 5,000	14.09	Miles	\$ 70,500
<b>ESTIMATE OF PROBABLE TOTAL PROJECT COST</b>				<b>\$ 142,606,300</b>

TABLE 5. PROPOSED 2025 WATER DISTRIBUTION SYSTEM'S ESTIMATE OF PROBABLE COST

Item		Quantity	Units	Cost (\$)
<b>Regional Pump Stations Facilities</b>				
	Spears Rd Regional Pump Station		\$	12,031,500
	249 Regional Pump Station		\$	59,852,800
	Hardy Regional Pump Station		\$	25,350,300
<b>Regional Water Plants Facilities</b>				
	Louetta Regional Water Plant		\$	4,818,700
<b>Sub Total Facilities Cost</b>			\$	<b>102,053,300</b>
<b>Construction Cost Contingency</b>	20%	\$ 102,053,300	\$	<b>\$ 20,410,700</b>
			Total Facilities Cost	\$ 122,464,000
<b>Open Cut Trench Construction</b>				
<b>Pipeline Diameter (inches)</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Units</b>	<b>Cost (\$)</b>
12"	\$ 135	28,096	LF	\$ 3,793,000
16"	\$ 155	103,178	LF	\$ 15,992,700
20"	\$ 170	9,222	LF	\$ 1,567,800
24"	\$ 225	4,612	LF	\$ 1,037,800
30"	\$ 395	-	LF	\$ -
36"	\$ 405	32,068	LF	\$ 12,987,700
42"	\$ 420	29,026	LF	\$ 12,191,000
48"	\$ 430	28,451	LF	\$ 12,234,200
54"	\$ 535	31,992	LF	\$ 17,115,700
60"	\$ 620	17,838	LF	\$ 11,059,900
84"	\$ 1,085	-	LF	\$ -
<b>Subtotals</b>		<b>284,484</b>		<b>\$ 87,979,800</b>
<b>Trenchless Construction</b>				
<b>Pipeline Diameter (inches)</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Units</b>	<b>Cost (\$)</b>
12"	\$ 180	13,844	LF	\$ 2,492,000
16"	\$ 270	65,935	LF	\$ 17,802,400
20"	\$ 515	5,188	LF	\$ 2,671,900
24"	\$ 595	2,552	LF	\$ 1,518,400
30"	\$ 740	-	LF	\$ -
36"	\$ 955	18,605	LF	\$ 17,767,500
42"	\$ 1,035	8,152	LF	\$ 8,437,200
48"	\$ 1,230	7,744	LF	\$ 9,524,600
54"	\$ 1,420	3,296	LF	\$ 4,680,500
60"	\$ 1,805	1,458	LF	\$ 2,630,800
84"	\$ 4,080	-	LF	\$ -
<b>Subtotals</b>		<b>126,773</b>		<b>\$ 67,525,300</b>
	<b>Total LF</b>	<b>411,257</b>		
<b>Sub Total Piping Cost</b>			\$	<b>155,505,100</b>
<b>Plant Connection Costs</b>	\$ 508,000	68	\$	<b>\$ 34,544,000</b>
<b>Construction Contingency</b>	20%	\$ 190,049,100	\$	<b>\$ 38,009,900</b>
			Total Piping Cost	\$ 228,059,000

**TABLE 5. PROPOSED 2025 WATER DISTRIBUTION SYSTEM'S ESTIMATE OF PROBABLE COST**

<b>Regional Water Wells and Collection lines</b>	\$ 1,907,680	2	EA	\$ 3,815,400
<b>Construction Contingency</b>	20%	\$ 3,815,400	\$	\$ 763,100
			<b>Total Water Wells</b>	\$ 4,578,500
			<b>Total Capital Cost</b>	\$ 355,101,500
<b>Engineering, Legal Cost</b>				
Pipeline	25%	232,637,500	\$	\$ 58,159,400
Other Facilities	30%	122,464,000	\$	\$ 36,739,200
<b>Land Acquisition</b>				
Right-of-Way Pipeline (30 ft wide)	\$ 80	411,257	Feet	\$ 32,900,600
Facilities Site Acquisition	\$ 110,000	50	Acres	\$ 5,500,000
Property Survey	10%	38,400,600	\$	\$ 3,840,100
<b>Environmental &amp; Archaeology Studies and Mitigation</b>				
Pipeline	\$ 5,000	78	Miles	\$ 389,500
Other	\$ 600	50	Acres	\$ 30,000
<b>ESTIMATE OF PROBABLE TOTAL PROJECT COST</b>				\$ 492,660,300

TABLE 6. PROPOSED 2035 WATER DISTRIBUTION SYSTEM'S ESTIMATE OF PROBABLE COST

Item		Quantity	Units	Cost (\$)
<b>Regional Pump Stations Facilities</b>				
	Spears Rd Regional Pump Station			5,264,800
	249 Regional Pump Station			11,876,400
	Hardy Regional Pump Station			6,391,100
<b>Regional Water Plants Facilities</b>				
	Louetta Regional Water Plant			9,003,700
	West Regional Water Plant			21,530,400
<b>Sub Total Facilities Cost</b>				<b>54,066,400</b>
<b>Construction Cost Contingency</b>	20%	54,066,400	\$	<b>10,813,300</b>
			<b>Total Facilities Cost</b>	<b>64,879,700</b>
<b>Open Cut Trench Construction</b>				
Pipeline Diameter (inches)	Unit Cost	Quantity	Units	Cost (\$)
12"	\$ 135	18,928	LF	\$ 2,555,300
16"	\$ 155	105,675	LF	\$ 16,379,600
20"	\$ 170	14,499	LF	\$ 2,464,900
24"	\$ 225	62,327	LF	\$ 14,023,600
30"	\$ 395	-	LF	\$ -
36"	\$ 405	21,605	LF	\$ 8,750,000
42"	\$ 420	24,702	LF	\$ 10,374,800
48"	\$ 430	-	LF	\$ -
54"	\$ 535	-	LF	\$ -
60"	\$ 620	-	LF	\$ -
84"	\$ 1,085	-	LF	\$ -
<b>Subtotals</b>		<b>247,735</b>		<b>\$ 54,548,200</b>
<b>Trenchless Construction</b>				
Pipeline Diameter (inches)	Unit Cost	Quantity	Units	Cost (\$)
12"	\$ 180	9,327	LF	\$ 1,678,900
16"	\$ 270	67,530	LF	\$ 18,233,200
20"	\$ 515	8,155	LF	\$ 4,199,900
24"	\$ 595	34,486	LF	\$ 20,519,400
30"	\$ 740	-	LF	\$ -
36"	\$ 955	12,534	LF	\$ 11,970,200
42"	\$ 1,035	6,937	LF	\$ 7,180,200
48"	\$ 1,230	-	LF	\$ -
54"	\$ 1,420	-	LF	\$ -
60"	\$ 1,805	-	LF	\$ -
84"	\$ 4,080	-	LF	\$ -
<b>Subtotals</b>		<b>138,970</b>		<b>\$ 63,781,800</b>
<b>Sub Total Piping Cost</b>				<b>118,330,000</b>
<b>Plant Connection Costs</b>	\$ 508,000	47	\$	<b>\$ 23,876,000</b>
<b>Construction Contingency</b>	20%	142,206,000	\$	<b>28,441,200</b>
			<b>Total Piping Cost</b>	<b>170,647,200</b>

TABLE 6. PROPOSED 2035 WATER DISTRIBUTION SYSTEM'S ESTIMATE OF PROBABLE COST

<b>Regional Water Wells and Collection lines</b>	\$ 1,907,680	3	EA	\$ 5,723,100
<b>Construction Contingency</b>	20%	5,723,100	\$	\$ 1,144,700
		<b>Total Water Wells</b>	\$	<b>6,867,800</b>
		<b>Total Capital Cost</b>	\$	<b>242,394,700</b>
<b>Engineering, Legal Cost and Contingencies</b>				
Pipeline	25%	\$ 177,515,000	\$	\$ 44,378,800
Other Facilities	30%	\$ 64,879,700	\$	\$ 19,464,000
<b>Land Acquisition</b>				
Right-of-Way Pipeline (30 ft wide)	\$ 80	386,705	Feet	\$ 30,936,400
Facilities Site Acquisition	\$ 110,000	11	Acres	\$ 1,210,000
Property Survey	10%	\$ 32,146,400	\$	\$ 3,214,700
<b>Environmental &amp; Archaeology Studies and Mitigation</b>				
Pipeline	\$ 5,000	73	Miles	\$ 366,200
Other	\$ 600	11	Acres	\$ 6,600
<b>ESTIMATE OF PROBABLE TOTAL PROJECT COST</b>				<b>\$ 341,971,400</b>

TABLE 7. PROPOSED 2045 WATER DISTRIBUTION SYSTEM'S ESTIMATE OF PROBABLE COST

Open Cut Trench Construction				
Pipeline Diameter (inches)	Unit Cost	Quantity	Units	Cost (\$)
12"	\$ 135	-	LF	\$ -
16"	\$ 155	5,279	LF	\$ 818,300
20"	\$ 170	-	LF	\$ -
24"	\$ 225	5,808	LF	\$ 1,306,800
30"	\$ 395	-	LF	\$ -
36"	\$ 405	-	LF	\$ -
42"	\$ 420	-	LF	\$ -
48"	\$ 430	-	LF	\$ -
54"	\$ 535	-	LF	\$ -
60"	\$ 620	-	LF	\$ -
84"	\$ 1,085	-	LF	\$ -
<b>Subtotals</b>		<b>11,087</b>		<b>\$ 2,125,100</b>
Trenchless Construction				
Pipeline Diameter (inches)	Unit Cost	Quantity	Units	Cost (\$)
12"	\$ 180	-	LF	\$ -
16"	\$ 270	3,374	LF	\$ 910,900
20"	\$ 515	-	LF	\$ -
24"	\$ 595	3,213	LF	\$ 1,912,000
30"	\$ 740	-	LF	\$ -
36"	\$ 955	-	LF	\$ -
42"	\$ 1,035	-	LF	\$ -
48"	\$ 1,230	-	LF	\$ -
54"	\$ 1,420	-	LF	\$ -
60"	\$ 1,805	-	LF	\$ -
84"	\$ 4,080	-	LF	\$ -
<b>Subtotals</b>		<b>6,587</b>		<b>\$ 2,822,900</b>
	<b>Total LF</b>	<b>17,674</b>		
<b>Sub Total Piping Cost</b>				<b>\$ 4,948,000</b>
<b>Plant Connection Costs</b>	\$ 508,000	2	\$	<b>\$ 1,016,000</b>
<b>Construction Contingency</b>	20%	\$ 5,964,000	\$	<b>\$ 1,192,800</b>
		<b>Total Piping Cost</b>	\$	<b>7,156,800</b>
		<b>Total Capital Cost</b>	\$	<b>7,156,800</b>
Engineering, Legal Cost and Contingencies				
Pipeline	25%	\$ 7,156,800	\$	<b>\$ 1,789,200</b>
Land Acquisition				
Right-of-Way Pipeline (30 ft wide)	\$ 80	17,674	Feet	<b>\$ 1,414,000</b>
Property Survey	10%	\$ 1,414,000	\$	<b>\$ 141,400</b>
Environmental & Archaeology Studies and Mitigation				
Pipeline	\$ 5,000	3.3	Miles	<b>\$ 16,800</b>
<b>ESTIMATE OF PROBABLE TOTAL PROJECT COST</b>				<b>\$ 10,518,200</b>

**TABLE 8. ESTIMATE OF PROBABLE COST SUMMARY**

	<b>2025</b>	<b>2035</b>	<b>2045</b>
Transmission System	\$ 142,606,300		
Distribution System	\$ 492,660,300	\$ 341,971,400	\$ 10,518,200
<b>Total Project Cost At Each Phase</b>	<b>\$ 635,266,600</b>	<b>\$ 341,971,400</b>	<b>\$ 10,518,200</b>
	<b>ESTIMATE OF PROBABLE TOTAL PROJECT COST</b>		\$ 987,756,200

H.B. No. 1541

## AN ACT

relating to the general powers and authority of water districts.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Section 388.005(a), Health and Safety Code, is amended to read as follows:

(a) In this section, "political subdivision" means:

(1) an affected county; or

(2) any political subdivision in a nonattainment area or in an affected county other than:

(A) a school district; or

(B) a district as defined by Section 36.001 or 49.001, Water Code, that had a total annual electricity expense of less than \$200,000 in the previous fiscal year of the district [in a nonattainment area or in an affected county].

SECTION 2. Section 43.0751(a)(3), Local Government Code, is amended to read as follows:

(3) "Strategic partnership agreement" means a written agreement described by this section between a municipality and a district [that provides terms and conditions under which services will be provided and funded by the parties to the agreement and under which the district will continue to exist for an extended period of time if the land within the district is annexed for limited or full purposes by the municipality].

SECTION 3. Section 43.0751, Local Government Code, is amended by amending Subsections (d), (f), and (i) and adding Subsection (q) to read as follows:

(d) Before the governing body of a municipality or a district adopts a strategic partnership agreement, it shall conduct two public hearings at which members of the public who wish to present testimony or evidence regarding the proposed agreement shall be given the opportunity to do so. Notice of public hearings conducted by the governing body of a municipality under this subsection shall be published in a newspaper of general circulation in the municipality and in the district. The notice must be in the format prescribed by Section 43.123(b) and must be published at least once on or after the 20th day before each date. Notice of public hearings conducted by the governing body of a district under this subsection shall be given in accordance with the district's notification procedures for other matters of public importance. Any notice of a public hearing conducted under this subsection shall contain a statement of the purpose of the hearing, the date, time, and place of the hearing, and the location where copies of the proposed agreement may be obtained prior to the hearing. The governing bodies of a municipality and a district may conduct joint public hearings under this subsection, provided that at least one public hearing is conducted within the district. [A municipality may combine the public hearings and notices required by this subsection with the public hearings and notices required by Section 43.124.]

(f) A strategic partnership agreement may provide for the following:

(1) limited-purpose annexation of the district on terms acceptable to the municipality and the district [under the provisions of Subchapter F] provided that the district shall continue in existence during the period of limited-purpose annexation;

(2) limited-purpose annexation of a district located in a county with a population of more than 3.3 million:

(A) only if the municipality does not require services, permits, or inspections or impose fees for services, permits, or inspections within the district; and

(B) provided that this subsection does not prevent the municipality from providing services within the district if:

(i) the provision of services is specified and agreed to in [such amendments to the timing requirements of Sections 43.123(d)(2) and 43.127(b) as may be necessary or convenient to effectuate the purposes of] the agreement;

(ii) the provision of services is not solely the result of a regulatory plan adopted by the municipality in connection with the limited-purpose annexation of the district; and

(iii) the district has obtained the authorization of the governmental entity currently providing the service;

(3) payments by the municipality to the district for services provided by the district;

(4) annexation of any commercial property in a district for full purposes by the municipality, notwithstanding any other provision of this code or the Water Code, except for the obligation of the municipality to provide, directly or through agreement with other units of government, full provision of municipal services to annexed territory, in lieu of any annexation of residential property or payment of any fee on residential property in lieu of annexation of residential property in the district authorized by this subsection;

(5) a full-purpose annexation provision on terms acceptable to the municipality and the district [that specifies one of the following:

[A] the date on which the land included within the district's boundaries shall be converted from the municipality's limited purpose jurisdiction to its full purpose jurisdiction, provided that such date shall not be later than 10 years after the effective date of the strategic partnership agreement; or

[B] (i) terms for payment of an annual fee to the municipality by the district in lieu of full purpose annexation, the form in which each such payment must be tendered, a method of calculating the fee, and the date by which each such payment must be made; failure by a district to timely make an annual payment in lieu of full purpose annexation in the amount and form required by a strategic partnership agreement shall be the only ground for termination of the agreement with respect to annexation at the option of the municipality;

[ii] to determine a reasonable fee to be derived from residential property in a district, the municipality or the district may request a cost-of-service study by an independent third party agreeable to both parties if cost-of-service data prepared by the municipality is not

acceptable. Both parties shall be equally responsible for the cost of the study, which shall include an evaluation of the estimated annual cost of providing municipal services to the residential portion of the district over the next 10 years and the estimated annual amount of ad valorem taxes from residential property the municipality would receive on full purpose annexation of the district over the next 10 years. The fee shall not exceed the estimated annual amount of residential ad valorem taxes that would be derived by full purpose annexation of the district, less the estimated annual amount required to provide municipal services to the residential property in the district if annexed for full purposes. A fee determined through this methodology is subject to renegotiation every 10 years at the request of either party to the agreement following the same procedure used to set the fee in the original agreement. This methodology does not apply to fees from commercial property];

(6) conversion of the district to a limited district including some or all of the land included within the boundaries of the district, which conversion shall be effective on the full-purpose annexation conversion date established under Subdivision (5) [~~(5)(A)~~];

(7) agreements existing between districts and governmental bodies and private providers of municipal services in existence on the date a municipality evidences its intention by adopting a resolution to negotiate for a strategic partnership agreement with the district shall be continued and provision made for modifications to such existing agreements; and

(8) such other lawful terms that the parties consider appropriate.

(i) A [district that is negotiating for or that has adopted] strategic partnership agreement may provide that the district shall not incur additional debt, liabilities, or obligations, to construct additional utility facilities, or sell or otherwise transfer property without prior approval of the municipality[, which approval shall not be unreasonably withheld or delayed. An action taken in violation of this subsection is void].

(q) Subchapter F does not apply to a limited-purpose annexation under a strategic partnership agreement.

SECTION 4. Section 43.123, Local Government Code, is amended by adding Subsection (e) to read as follows:

(e) The deadline imposed by Subsection (d) (2) does not apply to an area that:

(1) is owned by the United States, this state, or a political subdivision of this state;

(2) is located outside the boundaries of a water control and improvement district or a municipal utility district; and

(3) is annexed for limited purposes in connection with a strategic partnership agreement under Section 43.0751.

SECTION 5. Section 43.127(a), Local Government Code, is amended to read as follows:

(a) Except as provided by Section 43.123(e), on [~~or~~] or before the date prescribed by the regulatory plan under Section 43.123(d) (2), the municipality must annex the area for full purposes. This requirement may be waived and the date for full-purpose annexation postponed by written agreement between the municipality and a majority of the affected landowners. A written agreement to waive the municipality's obligation to annex the area for full purposes binds all future owners of land annexed for limited purposes pursuant to that waiver.

SECTION 6. Section 49.052, Water Code, is amended by adding Subsections (h) and (i) to read as follows:

(h) This subsection applies only to a district that is located wholly within the boundaries of a municipality with a population of more than 1.5 million, that is governed by Chapter 375, Local Government Code, and that is governed by an appointed board consisting of nine or more members. Notwithstanding Subsection (f) or (g), a person is considered to have resigned from serving as a member of the board if the person fails to attend three consecutive meetings of the board. The remaining board members by majority vote may waive the resignation under this subsection if fairness requires that the absences be excused on the basis of illness or other good cause.

(i) Notwithstanding any other law, a director is eligible to serve on the board of a district governed by Chapter 375, Local Government Code, regardless of the municipality in which the director resides, if:

(1) the district is located within the boundaries of a municipality with a population of more than 1.8 million; and

(2) all or a part of the district is located more than five miles from the downtown city hall of that municipality.

SECTION 7. Section 49.067, Water Code, is amended to read as follows:

Sec. 49.067. CONTRACTS. (a) A district shall contract, and be contracted with, in the name of the district.

(b) Notwithstanding any other law, a contract for technical, scientific, legal, fiscal, or other professional services must be approved by the board unless specifically delegated by board action. The terms and conditions of such a contract, including the terms for payment, are subject to the decision of the board unless specifically delegated by board action. The board through such action cannot abrogate its fiscal responsibility.

SECTION 8. Section 49.068, Water Code, is amended to read as follows:

Sec. 49.068. CONTRACTS WITH GOVERNMENTAL AGENCIES. (a) The provisions of this chapter pertaining to bids and the Local Government Code notwithstanding, a district may purchase property from any governmental entity by negotiated contract without the necessity of securing appraisals or advertising for bids.

(b) The provisions of other law or a home-rule municipal charter notwithstanding, a municipality may contract with a district. The term of a contract under this subsection may be of unlimited duration.

SECTION 9. Section 49.103, Water Code, is amended by adding Subsection (h) to read as follows:

(h) If authorized by the board in the proceedings calling a director election, the secretary of the board or the secretary's designee, on receipt of the certification required by Section 2.052(b), Election Code, shall post notice that the election is not to be held. The notice must be posted, on or before the commencement of early voting, at each polling place that would have been used in the election. If the notice is timely posted:

(1) the board or the board's designee is not required to:

(A) post or publish notice of the election;  
(B) prepare or print ballots and election

materials; or

(C) hold early and regular voting; and

(2) the board shall meet at the earliest practicable

time to declare each unopposed candidate elected to office.

SECTION 10. Section 49.106(a), Water Code, is amended to read as follows:

(a) Before an election is held to authorize the issuance of bonds, other than refunding bonds, there shall be filed in the office of the district and open to inspection by the public an engineer's report covering the land, improvements, facilities, plants, equipment, and appliances to be purchased or constructed and their estimated cost, together with maps, plats, profiles, and data fully showing and explaining the report. The engineer's report is not:

(1) part of the proposition or propositions to be voted on; or

(2) a contract with the voters.

SECTION 11. Sections 49.153(a) and (e), Water Code, are amended to read as follows:

(a) The board, without the necessity of an election, may borrow money on negotiable or nonnegotiable notes of the district to be paid solely from the revenues derived from the ownership of all or any designated part of the district's works, plants, improvements, facilities, or equipment after deduction of the reasonable cost of maintaining and operating the facilities.

(e) Subsection (c) does not apply to:

(1) a note issued to and approved by the:

(A) Farmers Home Administration;

(B) United States Department of Agriculture;

[~~or~~]

(C) Texas Water Development Board; or

(D) North American Development Bank; or

(2) a district described by Section 49.181(h).

SECTION 12. Section 49.181(a), Water Code, is amended to read as follows:

(a) A district may not issue bonds unless the commission determines that the project to be financed by the bonds is feasible and issues an order approving the issuance of the bonds. This section does not apply to:

(1) refunding bonds if the commission issued an order approving the issuance of the bonds or notes that originally financed the project;

(2) refunding bonds that are issued by a district under an agreement between the district and a municipality allowing the issuance of the district's bonds to refund bonds issued by the municipality to pay the cost of financing facilities; or

(3) bonds issued to and approved by the Farmers Home Administration, the United States Department of Agriculture, the North American Development Bank, or the Texas Water Development Board.

SECTION 13. Sections 49.183(a) and (b), Water Code, are amended to read as follows:

(a) Except for refunding bonds, or bonds sold to a state or federal agency or to the North American Development Bank, bonds issued by a district shall be sold after advertising for and receiving competitive sealed bids and shall be awarded to the bidder whose bid produces the lowest net effective interest rate to the district.

(b) Except for refunding bonds, or bonds sold to a state or federal agency or to the North American Development Bank, before any bonds are sold by a district, the board shall publish an appropriate notice of the sale:

(1) at least one time not less than 10 days before the

date of sale in a newspaper of general circulation in the county or counties in which the district is located; and

(2) at least one time in one or more recognized financial publications of general circulation in the state as approved by the state attorney general.

SECTION 14. Section 49.194, Water Code, is amended by adding Subsection (g) to read as follows:

(g) A submission to the executive director required by this section may be made electronically.

SECTION 15. Subchapter H, Chapter 49, Water Code, is amended by adding Section 49.2125 to read as follows:

Sec. 49.2125. FEES AND OTHER CHARGES OF CERTAIN REGIONAL WATER AUTHORITIES AFTER ANNEXATION. (a) This section applies to a regional water authority that:

(1) was established after January 1, 1999;  
(2) is located entirely within a county with a population greater than 3.4 million according to the 2000 federal decennial census; and

(3) has a population greater than 375,000 according to the 2000 federal decennial census.

(b) Notwithstanding any other law, except to the extent an authority to which this section applies agrees in writing, a municipality's annexation of territory within the authority has no effect on the authority's ability to assess and collect inside the territory annexed by the municipality the types of fees, rates, charges, or special assessments that the authority was assessing and collecting at the time the municipality initiated the annexation; provided, however, that the authority's ability to assess and collect such fees, rates, charges, or special assessments shall terminate on the later to occur of (i) the date of final payment or defeasance of any bonds or other indebtedness, including any refunding bonds, that are secured by such fees, rates, charges, or special assessments or (ii) the date that the authority no longer provides services inside the annexed territory. An authority to which this section applies shall continue to provide services to the annexed territory in accordance with contracts in effect at the time of the annexation unless a written agreement between the governing body of the authority and the governing body of the municipality provides otherwise.

SECTION 16. Sections 49.226(a), (c), and (d), Water Code, are amended to read as follows:

(a) Any personal property valued at more than \$300 or any land or interest in land owned by the district which is found by the board to be surplus and is not needed by the district may be sold under order of the board either by public or private sale, or the land, interest in land, or personal property may be exchanged for other land, interest in land, or personal property needed by the district. Except as provided in Subsection (b), land, interest in land, or personal property must be exchanged for like fair market value, which value may be determined by the district. In connection with the sale of surplus land, the board, at its discretion, may impose restrictions on the development and use of the land.

(c) Before [either] a public [~~or a private~~] sale of real property, the district shall give notice of the intent to sell by publishing notice once a week for two consecutive weeks in one or more newspapers with general circulation in the district.

(d) If the district has outstanding bonds secured by a pledge of tax revenues, the proceeds of the sale of property originally acquired with bond proceeds shall be:

(1) applied to retire outstanding bonds of the

district; or

(2) held and treated as surplus bond proceeds and spent only as provided by the rules of the commission relating to surplus bond proceeds.

SECTION 17. Section 49.234(a), Water Code, as added by Section 15, Chapter 1423, Acts of the 77th Legislature, Regular Session, 2001, is amended to read as follows:

(a) A district or water supply corporation that operates a wastewater collection system to serve land within its boundaries by rule may prohibit the installation of private on-site wastewater holding or treatment facilities on land within the district that is not served by the district's or corporation's wastewater collection system. A district or corporation that has not received funding under Subchapter K, Chapter 17, may not require a property owner who has [already] installed an on-site wastewater holding or treatment facility before the adoption of the rule to connect to the district's or corporation's wastewater collection system.

SECTION 18. Subchapter H, Chapter 49, Water Code, is amended by adding Section 49.236 to read as follows:

Sec. 49.236. NOTICE OF TAX HEARING. (a) Before the board adopts an ad valorem tax rate for the district for debt service, operation and maintenance purposes, or contract purposes, the board shall give notice of each meeting of the board at which the adoption of a tax rate will be considered. The notice must:

(1) contain a statement in substantially the following form:

"NOTICE OF PUBLIC HEARING ON TAX RATE

"The (name of the district) will hold a public hearing on a proposed tax rate for the tax year (year of tax levy) on (date and time) at (meeting place). Your individual taxes may increase or decrease, depending on the change in the taxable value of your property in relation to the change in taxable value of all other property and the tax rate that is adopted."; and

(2) contain the following information:

(A) the district's total adopted tax rate for the preceding year and the proposed tax rate, expressed as an amount per \$100;

(B) the difference, expressed as an amount per \$100 and as a percent increase or decrease, as applicable, in the proposed tax rate compared to the adopted tax rate for the preceding year;

(C) the average appraised value of a residence homestead in the district in the preceding year and in the current year; the district's total homestead exemption, other than an exemption available only to disabled persons or persons 65 years of age or older, applicable to that appraised value in each of those years; and the average taxable value of a residence homestead in the district in each of those years, disregarding any homestead exemption available only to disabled persons or persons 65 years of age or older;

(D) the amount of tax that would have been imposed by the district in the preceding year on a residence homestead appraised at the average appraised value of a residence homestead in that year, disregarding any homestead exemption available only to disabled persons or persons 65 years of age or older;

(E) the amount of tax that would be imposed by the district in the current year on a residence homestead appraised at

the average appraised value of a residence homestead in that year, disregarding any homestead exemption available only to disabled persons or persons 65 years of age or older, if the proposed tax rate is adopted; and

(F) the difference between the amounts of tax calculated under Paragraphs (D) and (E), expressed in dollars and cents and described as the annual increase or decrease, as applicable, in the tax to be imposed by the district on the average residence homestead in the district in the current year if the proposed tax rate is adopted.

(b) Notice of the hearing shall be:

(1) published at least once in a newspaper having general circulation in the district at least seven days before the date of the hearing; or

(2) mailed to each owner of taxable property in the district, at the address for notice shown on the most recently certified tax roll of the district, at least 10 days before the date of the hearing.

SECTION 19. Section 49.271, Water Code, is amended by adding Subsection (e) to read as follows:

(e) A district contract for construction work may include economic incentives for early completion of the work or economic disincentives for late completion of the work.

SECTION 20. Section 49.273, Water Code, is amended by adding Subsection (l) to read as follows:

(l) The board is not required to advertise or seek competitive bids for security or surveillance systems or components of or additions to district facilities relating to security or surveillance, including systems used for the prevention of terrorist or criminal acts and incidents or acts of war, if the board finds that doing so would compromise the safety and security of district facilities or residents.

SECTION 21. Section 49.278(a), Water Code, is amended to read as follows:

(a) This subchapter does not apply to:

(1) equipment, materials, or machinery purchased by the district at an auction that is open to the public;

(2) contracts for personal or professional services or for a utility service operator;

(3) contracts made by a district engaged in the distribution and sale of electric energy to the public;

(4) contracts for services or property for which there is only one source or for which it is otherwise impracticable to obtain competition; [or]

(5) high technology procurements; or

(6) contracts for the purchase of electricity for use by the district.

SECTION 22. Section 49.303, Water Code, is amended to read as follows:

Sec. 49.303. EXCLUDING LAND OR OTHER PROPERTY FROM DISTRICT.

(a) A district may exclude land or other property from the district under this subchapter if the district has no outstanding bonds payable in whole or in part from taxes.

(b) If a district has no outstanding [Before a district orders an election for the authorization of] bonds payable in whole or in part from taxes, the board may, on its own motion, call a hearing on the question of the exclusion of land or other property from the district under the provisions of this subchapter [section and Sections 49.304 through 49.307], if the exclusions are practicable, just, or desirable.

[(b) The board must call a hearing on the exclusion of land or other property from the district on the written petition of any landowner or property owner in the district filed with the secretary of the board before the first election on the question of whether bonds should be issued payable in whole or in part from taxes is ordered.]

(c) If a district has no outstanding bonds payable in whole or in part from taxes, the [The] board may hold a hearing on the exclusion of land or other property from the district [if the district has not issued bonds payable in whole or in part from taxes, and] if a landowner or property owner submits a signed petition to the secretary of the board evidencing the consent of the owners of a majority of the acreage proposed to be excluded and a majority of the taxable property in the district, as reflected by the most recent certified tax roll of the district.

(d) A district that has previously held an election at which approval was given for the issuance of bonds payable in whole or in part from taxes may not rely on that election for the issuance of the bonds if after the bond election, but before the bonds are issued, land or other property is excluded from the district as provided by this subchapter. The board must call and hold another bond election and receive voter approval [as provided by this subchapter] before issuing those bonds.

(e) A district may not exclude land or other property from the district under this section if the district has issued bonds payable in whole or in part from taxes and those bonds are outstanding.

SECTION 23. Section 49.304(a), Water Code, is amended to read as follows:

(a) If the board determines that an exclusion hearing should be held as provided by Section 49.303[(a) or (c), or if a written petition requesting an exclusion hearing is filed with the secretary of the board as provided by Section 49.303(b)], the board shall give notice of the time and place of a hearing to announce its own conclusions relating to land or other property to be excluded and to receive petitions for exclusion of land or other property.

SECTION 24. Sections 49.351(a), (k), and (l), Water Code, are amended to read as follows:

(a) A district providing potable water or sewer service to household users may establish, operate, and maintain a fire department to perform all fire-fighting services [activities] within the district as provided in this subchapter and may issue bonds or impose a mandatory fee, with voter approval, for financing a plan approved in accordance with this section, including the construction and purchase of necessary buildings, facilities, land, and equipment and the provision of an adequate water supply.

(k) In this section, "fire-fighting services [activities]" means all of the customary and usual services [activities] of a fire department, including fire suppression, fire prevention, training, safety education, maintenance, communications, medical emergency services, photography, and administration.

(l) Notwithstanding the requirements of Subsections (a) - (j), a district providing potable water or sewer service to household users may as part of its billing process collect from its customers a voluntary contribution on behalf of organizations providing fire-fighting services [activities] to the district. A district that chooses to collect a voluntary contribution under this subsection must give reasonable notice to its customers that the contribution is voluntary. Water and sewer service may not be terminated as a result of failure to pay the voluntary

contribution.

SECTION 25. Section 49.455(d), Water Code, is amended to read as follows:

(d) The information form required by this section shall be filed with the county clerk [within 48 hours after the effective date of this section or] within 48 hours after the district is officially created[, whichever time comes first]. For purposes of this section, the words "officially created" mean the date and hour in which the results of the election to confirm the creation of the district are declared.

SECTION 26. Section 53.029, Water Code, is amended by adding Subsection (e) to read as follows:

(e) A district that has adopted the rights, authority, privileges, and functions of a road district in the manner provided by Subsection (c) may, following approval of a construction contract by the district's governing body, reimburse expenditures as provided by Sections 257.003(a) and (b), Transportation Code, without any additional approval under Section 257.003, Transportation Code.

SECTION 27. Section 54.201(b), Water Code, is amended to read as follows:

(b) A district is authorized to purchase, construct, acquire, own, operate, maintain, repair, improve, or extend inside and outside its boundaries any and all works, improvements, facilities, plants, equipment, and appliances necessary to accomplish the purposes of the district authorized by the constitution, this code, or other law [~~its creation~~], including all works, improvements, facilities, plants, equipment, and appliances incident, helpful, or necessary to:

(1) supply water for municipal uses, domestic uses, power, and commercial purposes and all other beneficial uses or controls;

(2) collect, transport, process, dispose of, and control all domestic, industrial, or communal wastes whether in fluid, solid, or composite state;

(3) gather, conduct, divert, and control local storm water or other local harmful excesses of water in a district;

(4) irrigate the land in a district;

(5) alter land elevation in a district where it is needed;

(6) navigate coastal and inland waters of the district; and

(7) provide parks and recreational facilities for the inhabitants in the district, subject to the provisions of Chapter 49 [~~Subchapter I of this chapter~~].

SECTION 28. Subchapter D, Chapter 54, Water Code, is amended by adding Section 54.2052 to read as follows:

Sec. 54.2052. PLUMBING CODE. Notwithstanding any other law, a district is not required to adopt a plumbing code. A district may adopt and enforce one or more plumbing codes meeting the standards and requirements of the rules and laws of this state and may amend any code adopted to conform to local concerns if the amendment does not substantially vary from rules or laws of this state. If a municipal regulation conflicts with a district regulation, the municipal regulation prevails.

SECTION 29. Section 54.234, Water Code, is amended to read as follows:

Sec. 54.234. ACQUIRING ROAD UTILITY DISTRICT POWERS. Any district, which has the power to levy taxes, may[~~, with the approval of the commission,~~] petition the commission [~~Texas Transportation~~

~~Commission~~] to acquire the powers granted to road utility districts operating pursuant to Chapter 441, Transportation Code, under the authority of Article III, Section 52, Texas Constitution. As soon as practicable after such petition has been filed with the ~~commission [Texas Transportation Commission]~~, the ~~commission~~ ~~[Texas Transportation Commission shall conduct a hearing in accordance with Chapter 441, Transportation Code, and]~~ shall issue an order ~~[in accordance with Chapter 441, Transportation Code,]~~ either approving or denying such petition. ~~[Any district so petitioning the Texas Transportation Commission shall conform to the rules applicable to the creation and administration of such districts as provided by Chapter 441, Transportation Code.]~~ In the event of any conflict between the provisions of the Water Code and the general laws of this state applicable to the district and the provisions of Chapter 441, Transportation Code, the provisions of the Water Code and the general laws of this state applicable to the district shall prevail.

SECTION 30. Section 54.503, Water Code, is amended to read as follows:

Sec. 54.503. MANNER OF REPAYMENT OF BONDS. The board may provide for the payment of principal of and interest and redemption price on the bonds in any one of the following manners:

(1) from the levy and collection of ad valorem taxes on all taxable property within the district;

(2) by pledging all or any part of the designated revenues to result from the ownership or operation of the district's works, improvements, facilities, plants, equipment, and appliances or under specific contracts for the period of time the board determines;

(3) by pledging all or part of any funds or revenues available to the district; or

(4) a combination of the sources set forth in Subdivisions (1), [and] (2), and (3) of this section.

SECTION 31. Section 54.505, Water Code, is amended to read as follows:

Sec. 54.505. ELECTION ON TAX BONDS. Bonds payable solely from revenues may be issued by resolution or order of the board without an election, but no bonds, except refunding bonds, payable wholly or partially from ad valorem taxes shall be issued until authorized by a majority vote of the resident electors of the district voting in an election called and held for that purpose. An election is not required to pledge revenues to the payment of bonds.

SECTION 32. Sections 54.739 and 54.744, Water Code, are amended to read as follows:

Sec. 54.739. SUBSTITUTING LAND OF EQUAL ~~[ACREAGE AND]~~ VALUE. After the district is organized and acquires facilities with which to function for the purposes for which it was organized, and votes, issues and sells bonds for such purposes, land within the district boundaries subject to taxation that does not need or utilize the services of the district may be excluded and other land not within the boundaries of the district may be included within the boundaries of the district without impairment of the security for payment of the bonds or invalidation of any prior bond election, as provided by [the provisions of] this section and Sections 54.740 [54.741] through 54.747 [54.748 subject to commission approval].

Sec. 54.744. IMPAIRMENT OF SECURITY. For purposes of the board's consideration of the applications, the lands proposed for inclusion shall be deemed to be sufficient to avoid an impairment of the security for payment of obligations of the district if:

(1) according to the most recent [county] tax roll of

the district or the most recently certified estimates of taxable value from the chief appraiser of the appropriate appraisal district [rolls], the taxable value of such included lands equals or exceeds the taxable value of the excluded lands;

(2) either the estimated costs of providing district facilities and services to such included lands is equal to or less than the estimated costs of providing district facilities and services to the excluded lands or any increased estimated costs of providing district facilities and services to the included land, as determined by the district's engineer, can be amortized at prevailing bond interest rates and maturity schedules and the prevailing debt service tax rate of the district, as determined by the district's professional financial advisor, when applied to the increase in taxable value of the included land over the taxable value of the excluded land; and

(3) the district's outstanding bonds or contract obligations are payable in whole or in part by a pledge of net revenues from the ownership or operation of the district's facilities, and the projected net revenues to be derived from the lands to be included during the succeeding 12-month period, as determined by the district's engineer, equals or exceeds the projected net revenues that would otherwise have been derived from the lands to be excluded during the same period.

SECTION 33. Subchapter H, Chapter 54, Water Code, is amended by adding Sections 54.748 and 54.749 to read as follows:

Sec. 54.748. EXCLUSION OF LAND FOR FAILURE TO PROVIDE SUFFICIENT SERVICES; BONDS OUTSTANDING. (a) This section applies only to a district that has a total area of more than 5,000 acres.

(b) The board shall call a hearing on the exclusion of land from the district on a written petition filed with the secretary of the board by a landowner whose land has been included in and taxable by the district for more than 28 years if any bonds issued by the district payable in whole or in part from taxes of the district are outstanding and the petition:

(1) includes a signed petition evidencing the consent of the owners of a majority of the acreage proposed to be excluded, as reflected by the most recent certified tax roll of the district;

(2) includes a claim that the district has not provided the land with utility services;

(3) describes the property to be excluded;

(4) provides, at the petitioner's expense, facts necessary for the board to make the findings required by Subsection (c); and

(5) is filed before August 31, 2005.

(c) The board may exclude land under this section only on finding that:

(1) the district has never provided utility services to the land described by the petition;

(2) the district has imposed a tax on the land for more than 28 years;

(3) all taxes the district has levied and assessed against the land and all fees and assessments the district has imposed against the land or the owner that are due and payable on or before the date of the petition are fully paid; and

(4) the executive director has reviewed the economic impact of the proposed exclusion of land and does not oppose the exclusion.

(d) If evidence presented at the hearing conclusively demonstrates that the requirements and grounds for exclusion described by Subsections (b) and (c) have been met, the board may

enter an order excluding the land from the district. If the board enters an order excluding the land, the board shall redefine in the order the boundaries of the district to embrace all land not excluded.

(e) A copy of an order excluding land and redefining the boundaries of the district shall be filed in the deed records of the county in which the district is located.

(f) The exclusion of land under this section does not impair the rights of holders of any outstanding bonds, warrants, or other certificates of indebtedness of the district.

(g) After any land is excluded under this section, the district may issue any unissued additional debt approved by the voters of the district before exclusion of the land under this section without holding a new election. Additional debt issued after land is excluded from the district may not be payable from and does not create a lien against the taxable value of the excluded land.

(h) For purposes of this section and Section 54.749, "land" includes any improvements to the land, and when used in the context of property taxes, "land" has the meaning assigned to "real property" by Section 1.04, Tax Code.

Sec. 54.749. TAX LIABILITY OF EXCLUDED LAND; BONDS OUTSTANDING. (a) Land excluded from the district under Section 54.748 that is pledged as security for any outstanding debt of the district remains pledged for its pro rata share of the debt until final payment is made. The district shall continue to levy and collect taxes on the excluded land at the same rate levied on land remaining in the district until the amount of taxes collected from the excluded land equals the land's pro rata share of the district's debt outstanding at the time the land was excluded from the district.

(b) The district shall apply the taxes collected on the excluded land only to the payment of the excluded land's pro rata share of the debt.

SECTION 34. Section 57.015(b), Water Code, is amended to read as follows:

(b) The notice shall be posted at the courthouse door and at a place [four different places] inside the proposed district. If the district is located in more than one county, the person posting the notice shall post a copy at the courthouse door in each county in which any portion of the proposed district is located and at a place [four separate places] inside the boundaries of that portion of the district located in each county. The notice shall be posted for at least 10 days before the date of the hearing.

SECTION 35. Section 57.092(a), Water Code, is amended to read as follows:

(a) The district may enter into all necessary and proper contracts and employ all persons and means necessary to purchase, acquire, build, construct, complete, carry out, maintain, protect, and, in case of necessity, add to and rebuild all works and improvements necessary or proper to fully accomplish the purposes of the district, including the reclamation of land within the district [a reclamation plan lawfully adopted for the district].

SECTION 36. Section 57.104, Water Code, is amended to read as follows:

Sec. 57.104. CONSTRUCTION OF [DUTY TO CONSTRUCT APPROVED] IMPROVEMENTS. The district may [shall] construct all improvements necessary or convenient to accomplish the purposes of the district [included in the plan of reclamation approved by the commission].

SECTION 37. Section 57.108(b), Water Code, is amended to

read as follows:

(b) Contracts may be awarded or entered in sections for the purpose of the purchase, acquisition, construction, and improvement of pumping equipment, reservoirs, culverts, bridges, and drainage improvements as these may become necessary [~~, but as funds are available, the district shall comply with Section 57.104~~].

SECTION 38. The heading to Section 57.116, Water Code, is amended to read as follows:

Sec. 57.116. ENGINEER'S CONSTRUCTION REPORT.

SECTION 39. Section 57.116(a), Water Code, is amended to read as follows:

(a) As [~~the~~] work [~~on the plan of reclamation~~] progresses on the district's improvements, the engineer shall make a report to the board, showing in detail whether or not the contract is being fulfilled.

SECTION 40. Section 57.117(b), Water Code, is amended to read as follows:

(b) If the executive director finds that the work has not been done in strict accordance with the contract, he shall officially certify this fact, and in the certificate he shall state where the contractor has failed to comply with the contract [~~approved plan of reclamation~~].

SECTION 41. Section 57.118, Water Code, is amended to read as follows:

Sec. 57.118. COMPLIANCE WITH CONTRACT. After the board receives a report that the contractor has failed to comply with the contract, it shall demand that the contractor comply with the requirements of the contract [~~approved plan of reclamation~~] at his own expense, and no further accounts, claims, or vouchers submitted by the contractor shall be approved or paid until the contractor complies with the requirements of the executive director by constructing the improvement in accordance with the contract [~~plan of reclamation~~].

SECTION 42. The heading to Subchapter E, Chapter 57, Water Code, is amended to read as follows:

SUBCHAPTER E. ENGINEER'S REPORT [~~PLAN OF RECLAMATION~~]

SECTION 43. Sections 57.177(a) and (c), Water Code, are amended to read as follows:

(a) If the district wants to carry out its purposes [~~plan of reclamation~~] without issuing bonds, the board may arrange for contributions from landowners or other sources to provide the funds required to complete the improvements.

(c) If the district creates an indebtedness under this section, the indebtedness may not be more than:

(1) the cost of construction of the improvements included in the engineer's report [~~plan of reclamation~~];  
(2) the cost [~~as approved by the commission~~] of maintaining the improvements for two years; and  
(3) an additional amount equal to 10 percent to meet emergencies, modifications, and changes lawfully made, plus damages awarded against the district.

SECTION 44. Section 57.208(b), Water Code, is amended to read as follows:

(b) The bonds shall be known as "Levee Improvement Bonds" [~~and shall state on their face the purpose for which they are issued~~].

SECTION 45. Section 57.216, Water Code, is amended to read

as follows:

Sec. 57.216. PROVIDING FOR ADDITIONAL FUNDS. (a) If the improvements in the engineer's report [~~plan of reclamation adopted for the district~~] are insufficient to reclaim all of the land and other property inside the district, extensive repairs or additions to the improvements are necessary, or additional funds are needed to complete improvements, the board may provide additional funds for the district by following the provisions of this chapter for raising funds [~~for the original plan of reclamation~~].

(b) If the board creates additional indebtedness or issues additional bonds, the indebtedness or bonds are subject to the provisions of this chapter relating to the issuance of bonds. [~~The new or amended plan of reclamation must be approved by the commission~~]

SECTION 46. Section 57.260(a), Water Code, is amended to read as follows:

(a) If a district levies taxes on the benefit basis, the commissioners court of each county in which any portion of that district is located shall levy and have assessed and collected taxes on all taxable property inside the district, based on the net benefits which the commissioners of appraisement find will accrue to each piece of property from the improvements described in the engineer's report [~~completion of the plan of reclamation~~] or other authorized improvements [~~improvement~~].

SECTION 47. Section 57.261, Water Code, is amended to read as follows:

Sec. 57.261. APPOINTMENT OF COMMISSIONERS OF APPRAISEMENT. The [~~After the plan of reclamation is approved and adopted, the~~] commissioners court of the county of jurisdiction in a district levying taxes on the benefit basis shall appoint three disinterested commissioners, known as "commissioners of appraisement."

SECTION 48. Sections 57.265(c) and (d), Water Code, are amended to read as follows:

(c) The commissioners of appraisement shall view:

(1) the land inside the district;  
(2) other land which will be affected by the engineer's report [~~plan of reclamation~~] if carried out;  
(3) all public roads, railroads, rights-of-way, and other property or improvements located on the land; and  
(4) land inside or outside the district which may be acquired under the provisions of this chapter for any purpose connected with or incident to carrying out the engineer's report [~~plan of reclamation~~].

(d) The commissioners of appraisement shall assess the amounts of benefits and all damages that will accrue to any tract of land inside the district or any land outside the district which may be affected by the engineer's report [~~plan of reclamation~~], or any public highway, railroad, right-of-way, roadway, or other property.

SECTION 49. Section 57.266(a), Water Code, is amended to read as follows:

(a) The commissioners of appraisement shall prepare a report of their findings. The report shall include:

(1) the name of the owner of each piece of property examined and assessed;  
(2) a description which will identify each piece of property; and  
(3) the value of all property to be taken or acquired for rights-of-way or any other purposes connected with carrying out

the engineer's report [plan of reclamation as finally approved by the commission].

SECTION 50. Sections 57.267(b), (c), and (d), Water Code, are amended to read as follows:

(b) The notice shall be published in a newspaper published in each county in which any part of the district is located, or in which any land lies that will be in any way affected by the proposed engineer's report [plan of reclamation]. The notice shall be published once a week for two consecutive weeks before the date of the hearing.

(c) The notice shall be in substantially the following form:

To the owners and all other persons having any interest in land lying in \_\_\_\_\_ County, take notice, that a copy of the engineer's report [plan of reclamation] of the \_\_\_\_\_ Levee Improvement District has been filed in the district's office [with the county clerk of this county] and that the commissioners of appraisement have been appointed to assess benefits and damages accruing to land or other property inside or outside the levee improvement district which will be benefited, taken, damaged, or affected in some way by the carrying out of the engineer's report [plan of reclamation]. The report of the commissioners of appraisement has been filed in my office at \_\_\_\_\_, and all interested persons may examine the report and make an objection to all or any part of the report. A person who claims damage to his land and to whose land no damages have been assessed in the report must file a claim for damage in my office on or before \_\_\_\_\_, [19] \_\_\_. A person who fails to make an objection or to file a claim for damages is deemed to have waived his right to object or claim damages. The commissioners of appraisement will meet on \_\_\_\_\_, [19] \_\_\_, to hear and act on objections to their report and claims for damages.

Secretary, Board of Directors

Levee Improvement District

(d) The secretary shall mail written notice to each person whose property is listed in the report of the commissioners of appraisement, if the office address is known. This notice shall state in substance:

(1) that the report of the commissioners of appraisement assessing benefits and damages accruing to land and other property because of the engineer's report [plan of reclamation] for the district has been filed in the district's [secretary's] office;

(2) that all persons interested may examine the report and make objections to it in whole or in part; and

(3) that the commissioners of appraisement will meet on the day and at the place named to hear and act on objections to the report.

SECTION 51. Sections 57.269(a) and (b), Water Code, are amended to read as follows:

(a) An owner of land or other property affected by the report of the commissioners of appraisement or by the engineer's report [plan of reclamation] may file an objection to any or all parts of the report of the commissioners of appraisement at or before the hearing on the report.

(b) A person on whose land no damages have been assessed and who believes that his land will be damaged by prosecution of the engineer's report [plan of reclamation] may file with the secretary of the board a claim for damages.

SECTION 52. Sections 57.270(e), (j), and (k), Water Code,

are amended to read as follows:

- (e) The secretary in not less than five days after the appeal is filed shall send to the district clerk:
- (1) the engineer's report [~~plan of reclamation~~] or a certified copy of it;
  - (2) a transcript of that part of the commissioners of appraisement's report affecting the lands concerned in the appeal;
  - (3) a transcript of the claim for damages; and
  - (4) a transcript of the action of the commissioners of appraisement on the claim.

(j) No appeal may delay carrying out the engineer's report [~~plan of reclamation~~], and if the board pays to the district clerk the amount of damages awarded by the commissioners of appraisement to a claimant who is appealing their decree, and if the board makes bond to pay to the claimant any additional amount that he may be awarded on his appeal, title to the condemned property that is the subject of the appeal vests in the district, and the district is entitled to immediate possession.

(k) No person may claim damages against the district, its board, officers, or agents because of the prosecution of the engineer's report [~~plan of reclamation~~] if he owns or has an interest in land in a county in which [~~a copy of the plan of reclamation has been filed and in which~~] notice has been published of the hearing before the commissioners of appraisement, and he has failed to file a claim for damages or an objection to the damages assessed by the commissioners of appraisement against his land, or if he has filed a claim or objection but has failed to appeal from an adverse ruling on his claim or objection.

SECTION 53. Section 57.273(b), Water Code, is amended to read as follows:

(b) If the engineer's report [~~plan of reclamation~~] is changed or modified, or if extensive repairs or additions to the engineer's report [~~plan of reclamation~~] are desired, the board shall file a petition with the commissioners court describing the changes, modifications, repairs, or additions.

SECTION 54. Section 57.274(b), Water Code, is amended to read as follows:

(b) The commissioners court shall order a reassessment of benefits if it finds that the aggregate amount of assessed benefits as shown by the previous final judgment and decree is insufficient to carry out the original engineer's report [~~plan of reclamation~~] or changes, repairs, or additions to the report [~~plan~~] or there has been a material change in the relative value of the benefits conferred on the property in the district, or for some reason the assessment of benefits is inadequate or inequitable.

SECTION 55. Section 57.275(d), Water Code, is amended to read as follows:

(d) If the engineer's report [~~plan of reclamation~~] is modified, or if extensive repairs or additions are made, the provisions of this section apply to districts that levy taxes on the ad valorem basis, but the commissioners of appraisement shall assess only the damages which will accrue to the property inside or outside the district as a result of the changes in the report [~~plan~~].

SECTION 56. Section 67.010(d), Water Code, is amended to read as follows:

(d) A political subdivision may contract with a corporation under Section 402.014, Local Government Code, to carry out this chapter. If a corporation issues bonds secured by a contract entered into under Section 402.014, Local Government Code, the

corporation is considered to be acting for or on behalf of that political subdivision for the purposes of Section 1201.002(1), Government Code. A political subdivision is authorized to approve by ordinance, resolution, or order the articles of incorporation and the bylaws of a corporation that is created for the purpose of constructing facilities under a contract as provided by Section 402.014, Local Government Code.

SECTION 57. The following provisions are repealed:

- (1) Sections 54.0163(e), 54.508, 57.094, 57.108(a), 57.154(b), and 57.156, Water Code;
- (2) Section 402.908, Local Government Code; and
- (3) Subchapter C, Chapter 441, Transportation Code.

SECTION 58. (a) Except as provided by this section, a provision of a strategic partnership agreement entered into before December 31, 2003, that does not comply with Section 43.0751(f)(2), Local Government Code, as amended by this Act, is not enforceable after December 31, 2003, to the extent of the noncompliance.

(b) A permit issued before December 31, 2003, by a municipality with a population of 1.9 million or more remains valid until its expiration and shall be recognized by the county.

(c) A municipality with a population of 1.9 million or more may not enforce, under a strategic partnership agreement, a code provision that would otherwise require a building permit from the municipality after the effective date of this Act.

(d) This section does not affect the validity or enforceability of a provision of a strategic partnership agreement that requires services or imposes fees if the services or fees relate to emergency services that were specifically requested by the board of a municipal utility district or if the services or fees have been approved by a state agency or a political subdivision that is not a party to the strategic partnership agreement.

SECTION 59. (a) Section 43.127(a), Local Government Code, as amended by this Act, applies to an area described by Section 43.123(e), Local Government Code, as added by this Act, that is annexed for limited purposes in connection with a strategic partnership agreement before, on, or after September 1, 2003.

(b) For the 2003 tax year, the change in law made by Section 49.236, Water Code, applies only to a conservation and reclamation district created under Section 52, Article III, or Section 59, Article XVI, Texas Constitution, and governed by Chapter 49, Water Code, that adopts its tax rate on or after September 1, 2003. For the 2003 tax year, a district that adopts its tax rate before September 1, 2003, is governed by the law as it existed prior to the effective date of this Act, and that law is continued in effect for that purpose.

SECTION 60. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2003.

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President of the Senate

Speaker of the House

I certify that H.B. No. 1541 was passed by the House on May 10, 2003, by the following vote: Yeas 134, Nays 0, 3 present, not

voting; that the House refused to concur in Senate amendments to H.B. No. 1541 on May 29, 2003, and requested the appointment of a conference committee to consider the differences between the two houses; and that the House adopted the conference committee report on H.B. No. 1541 on June 1, 2003, by the following vote: Yeas 148, Nays 0, 2 present, not voting.

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Chief Clerk of the House

I certify that H.B. No. 1541 was passed by the Senate, with amendments, on May 27, 2003, by the following vote: Yeas 31, Nays 0; at the request of the House, the Senate appointed a conference committee to consider the differences between the two houses; and that the Senate adopted the conference committee report on H.B. No. 1541 on June 1, 2003, by the following vote: Yeas 31, Nays 0.

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Secretary of the Senate

APPROVED: \_\_\_\_\_

Date

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\_\_\_\_\_  
Governor

H.B. No. 2418

1 AN ACT

2 relating to the territory, board of directors, and powers of the  
3 North Harris County Regional Water Authority.

4 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

5 SECTION 1. Section 1.03, Chapter 1029, Acts of the 76th  
6 Legislature, Regular Session, 1999, is amended by amending  
7 Subsection (b) and adding Subsections (b-1), (b-2), (f), (g), and  
8 (h) to read as follows:

9               (b) The authority includes the [only that] territory  
10 described by Subsection (a) of this section only if that territory  
11 is also in one or more of the following state representative  
12 districts as described by Article II, Chapter 2, Acts of the 72nd  
13 Legislature, 3rd Called Session, 1992 (Article II, Article 195a-11,  
14 Vernon's Texas Civil Statutes), as the districts existed on the  
15 effective date of this Act:

16 (1) District 127

17 (2) District 126;

18 (3) District 130;

19 (4) District 135; and

20 (5) District 150.

21           **(b-1) The authority also includes the territory of the**  
22 following districts:

23 (1) Harris County Municipal Utility District No. 16;

24 (2) Harris County Municipal Utility District No. 26;

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1                   (3) Harris County Municipal Utility District No. 233;  
2                   (4) Richey Road Municipal Utility District;  
3                   (5) Harris County Water Control and Improvement  
4                   District No. 109;  
5                   (6) Inverness Forest Improvement District; and  
6                   (7) Memorial Hills Utility District.

7                   (b-2) The territory of the authority does not include  
8                   property that lies within the boundaries of a local government,  
9                   other than the authority, if:

10                  (1) the local government had a groundwater reduction  
11                  plan approved by the subsidence district before January 1, 2010;  
12                  and

13                  (2) the property was included in the local  
14                  government's approved groundwater reduction plan on January 1,  
15                  2010.

16                  (f) Territory annexed by a local government located in the  
17                  authority becomes territory of the authority on the effective date  
18                  of the annexation, unless the annexed territory is included in  
19                  another local government's approved groundwater reduction plan as  
20                  of the effective date of the annexation. The authority by rule may  
21                  require the local government to send to the authority:

22                  (1) written notice of the effective date of an  
23                  annexation; and

24                  (2) copies of documents describing the annexed land  
25                  and describing the new boundaries of the local government.

26                  (g) If territory is added to the service area of a person  
27                  owning a water system located in the authority, the territory

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1 becomes territory of the authority on the effective date of the  
2 territory's addition to the service area, unless the added  
3 territory is included in another local government's approved  
4 groundwater reduction plan as of the effective date of the  
5 addition. The authority by rule may require the person to send to  
6 the authority:

(2) copies of documents describing the added territory  
and describing the new boundaries of the person's service area.

11           (h) The annexation or addition of territory to the authority  
12 under this section does not affect the validity of bonds issued by  
13 the authority.

14 SECTION 2. Section 1.05, Chapter 1029, Acts of the 76th  
15 Legislature, Regular Session, 1999, is amended by adding Subsection  
16 (c) to read as follows:

(c) The following laws do not apply to the authority:

18 (1) Chapter 36, Water Code;

(2) Section 49.052, Water Code; and

(3) Sections 49.451-49.455, Water Code.

21 SECTION 3. Section 2.03, Chapter 1029, Acts of the 76th  
22 Legislature, Regular Session, 1999, is amended to read as follows:

23 Sec. 2.03. SERVICE OF DIRECTORS. Directors  
24 [(a) Temporary directors serve until the initial permanent  
25 directors are elected under Section 2.05 of this Act.]

[b] The initial permanent directors serve until permanent  
directors are elected under Section 2.06 of this Act.

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1       ~~[(c) Permanent directors]~~ serve staggered four-year terms.  
2       ~~[(d) A director serves until the director's successor has~~  
3       ~~qualified.]~~

4           SECTION 4. The heading to Section 4.04, Chapter 1029, Acts  
5 of the 76th Legislature, Regular Session, 1999, is amended to read  
6 as follows:

7           Sec. 4.04. CIVIL PENALTY; CIVIL ACTION; INJUNCTION.

8           SECTION 5. Section 4.04, Chapter 1029, Acts of the 76th  
9 Legislature, Regular Session, 1999, is amended by adding  
10 Subsections (b-1) and (e) to read as follows:

11           (b-1) The authority may bring an action in a district court  
12 against a district, other political subdivision, or other person  
13 located in the authority's territory or included in the authority's  
14 groundwater reduction plan to:

15           (1) recover any fees, rates, charges, assessments,  
16 collection expenses, attorney's fees, interest, penalties, or  
17 administrative penalties due the authority; or

18           (2) enforce the authority's rules or orders.

19           (e) Governmental immunity from suit or liability of a  
20 district or other political subdivision is waived for the purposes  
21 of an action described by Subsection (b-1) of this section.

22           SECTION 6. The following sections of Chapter 1029, Acts of  
23 the 76th Legislature, Regular Session, 1999, are repealed:

24           (1) Section 2.04;  
25           (2) Section 2.05; and  
26           (3) Section 2.07.

27           SECTION 7. (a) The legal notice of the intention to

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1 introduce this Act, setting forth the general substance of this  
2 Act, has been published as provided by law, and the notice and a  
3 copy of this Act have been furnished to all persons, agencies,  
4 officials, or entities to which they are required to be furnished  
5 under Section 59, Article XVI, Texas Constitution, and Chapter 313,  
6 Government Code.

7 (b) The governor, one of the required recipients, has  
8 submitted the notice and Act to the Texas Commission on  
9 Environmental Quality.

10 (c) The Texas Commission on Environmental Quality has filed  
11 its recommendations relating to this Act with the governor, the  
12 lieutenant governor, and the speaker of the house of  
13 representatives within the required time.

14 (d) All requirements of the constitution and laws of this  
15 state and the rules and procedures of the legislature with respect  
16 to the notice, introduction, and passage of this Act are fulfilled  
17 and accomplished.

18 SECTION 8. This Act takes effect immediately if it receives  
19 a vote of two-thirds of all the members elected to each house, as  
20 provided by Section 39, Article III, Texas Constitution. If this  
21 Act does not receive the vote necessary for immediate effect, this  
22 Act takes effect September 1, 2011.

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President of the Senate

Speaker of the House

I certify that H.B. No. 2418 was passed by the House on April 7, 2011, by the following vote: Yeas 144, Nays 0, 1 present, not voting.

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Chief Clerk of the House

I certify that H.B. No. 2418 was passed by the Senate on May 19, 2011, by the following vote: Yeas 31, Nays 0.

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Secretary of the Senate

APPROVED: \_\_\_\_\_

Date

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Governor

# **H.B. No. 2965 from the 76<sup>th</sup> Legislature, Regular Session, 1999**

## **AN ACT**

relating to the creation, administration, powers, duties, operation, and financing of the North Harris County Regional Water Authority; granting the power of eminent domain and the authority to issue bonds; providing a civil penalty.

**BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:**

### **ARTICLE 1. GENERAL PROVISIONS**

**SECTION 1.01. CREATION.** (a) A regional water authority, to be known as the North Harris County Regional Water Authority, is created in Harris County, subject to a confirmation election held under Section 2.05 of this Act. The authority is a governmental agency and a body politic and corporate.

(b) The authority is created under and is essential to accomplish the purposes provided by Section 59, Article XVI, Texas Constitution.

**SECTION 1.02. DEFINITIONS.** In this Act:

- (1) "Authority" means the North Harris County Regional Water Authority.
- (2) "Board" means the board of directors of the authority.
- (3) "Commission" means the Texas Natural Resource Conservation Commission.
- (4) "Director" means a member of the board.
- (5) "Local government" means a municipality, county, special district, or other political subdivision of this state or a combination of two or more of those entities.
- (6) "Person" has the meaning assigned by Section 311.005, Government Code.
- (7) "Subsidence district" means the Harris-Galveston Coastal Subsidence District.
- (8) "System" means a network of pipelines, conduits, canals, pumping stations, force mains, treatment plants, and any other construction, device, or related appurtenance used to treat or transport water.
- (9) "Water" includes:
  - (A) groundwater, percolating or otherwise;
  - (B) any surface water, natural or artificial, navigable or nonnavigable; and
  - (C) industrial and municipal wastewater.
- (10) "Subsidence" means the lowering in elevation of the surface of land by the withdrawal of groundwater.
- (11) "Agricultural crop" means food or fiber commodities grown for resale or commercial purposes that provide food, clothing, or animal feed.

**SECTION 1.03. DESCRIPTION OF BOUNDARIES.** (a) Except as provided by this section, the authority includes the territory that is contained in the following area, whether the territory contains noncontiguous parcels of land or whether the territory is located within the boundaries of any other governmental entity or political subdivision of the state, but only if also contained in one or more of the house districts described by this section:

BEGINNING at the intersection of the Harris and Waller County line with the north right-of-way line of U.S. Highway 290 (current alignment);

THENCE northwest along the Harris and Waller County line to the intersection with Spring Creek;

THENCE continuing southeasterly along said Harris and Waller County line, with the meanders of Spring Creek to the intersection of the Waller and Montgomery County line;

THENCE southeasterly along the Harris and Montgomery County line continuing with the

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meanders of said Spring Creek; to the intersection with the City of Houston, corporate limits;

THENCE along said City of Houston corporate limits, the following: south approximately one half mile; east approximately one half mile to the City of Humble corporate limits; north along said City of Humble corporate limits approximately one half mile to aforementioned Spring Creek; east along Spring Creek to its confluence with the San Jacinto River to the intersection of U.S. Highway 59; easterly and southerly along the take line for Lake Houston to the intersection with the southeasterly right-of-way of the Union Pacific Railroad; southwesterly along said Union Pacific Railroad for approximately two miles; south to the north end of Duessen Parkway; southeast along the east side of Duessen Parkway and along the north side of the access road to the intersection with North Lake Houston Parkway;

THENCE departing said City of Houston corporate limits, west along the north side of said North Lake Houston Parkway to the beginning of Mount Houston Road, and continuing west on Mount Houston Road to the 6900 block to the intersection of Suburban;

THENCE south along Suburban to the City of Houston corporate limits;

THENCE along said City of Houston corporate limits, the following: west to Hirsch Road; south along the west side of Hirsch Road to Langely; west along the south side of Langley to the southbound feeder road of US Highway 59; northeast along the west side of the feeder road of US Highway 59 to Little York; west along the south side of Little York to Bentley; north along the east side of Bentley to Sagebrush; west along the north side of Sagebrush to Halls Bayou; south along Halls Bayou to Little York; west along the south side of Little York to Aldine Westfield Road; north along the east sides of Aldine Westfield Road to its intersection with the easterly extension of the City of Houston corporate limits; west to the Hardy Toll Road; north along the Hardy Toll Road approximately 0.25 miles; east approximately 0.35 mile; north approximately 0.15 mile; west approximately 0.35 mile; northwest along the Hardy Toll Road approximately 1 mile; southwesterly along an irregular path generally west to Carby; west along Carby to Airline Drive; south along Airline Drive to Canino; west along Canino to Sweetwater; north along Sweetwater to West Road; west to Interstate 45/US 75; south along Interstate 45/US 75 to south of Bluebell Road; southerly along an irregular path generally south and west to West Mount Houston Road; west along Mount Houston Road to a line east of Ella Boulevard; south along a line generally parallel to Ella Boulevard to south of West Gulf Bank; west along the south side of West Gulf Bank to Tomball Parkway; northwest along Tomball Parkway approximately 1.5 mile; west along an irregular path to North Houston-Rosslyn Road; north along North Houston-Rosslyn Road to Vogel Creek; west along Vogel Creek to the FWD CRIP RR; south along the FWD CRIP RR to Logview; west along Logview to Hollister; south along Hollister to White Oak Bayou; east along White Oak Bayou to Twisting Vine; south along Twisting Vine to West Little York; west along West Little York to Fairbanks North Houston; south along Fairbanks North Houston to Cole Creek; west along Cole Creek to Hempstead Road; northwest along Hempstead Road to Brittmore Road, also being the intersection with U.S. Highway 290, Northwest Freeway;

THENCE departing said City of Houston corporate limits and continuing northwest along U.S. Highway 290, Northwest Freeway, at Spencer Road;

THENCE northwest along U.S. Highway 290, Northwest Freeway (current alignment), to the intersection of the Harris and Waller County line, the POINT OF BEGINNING.

(b) The authority includes only that territory described by Subsection (a) of this section that is

## **H.B. No. 2965 from the 76<sup>th</sup> Legislature, Regular Session, 1999**

also in the following state representative districts as described by Article II, Chapter 2, Acts of the 72nd Legislature, 3rd Called Session, 1992 (Article II, Article 195a-11, Vernon's Texas Civil Statutes), as the districts existed on the effective date of this Act:

- (1) District 127;
- (2) District 126;
- (3) District 130;
- (4) District 135; and
- (5) District 150.

(c) Notwithstanding Subsections (a) and (b) of this section, the authority does not include any area that, on the effective date of this Act, is inside the municipal limits of the city of Houston or inside the municipal limits of the city of Humble.

(d) On a municipality's annexation of any of the authority's territory, the annexed territory is excluded from the authority's territory. The authority shall continue to provide services to the annexed territory in accordance with contracts in effect at the time of the annexation unless a written agreement between the board and the governing body of the municipality provides otherwise.

**SECTION 1.04. EXCLUSION OF CERTAIN TERRITORY.** (a) A district organized under Section 52, Article III, or Section 59, Article XVI, Texas Constitution, that is located in the portion of the territory described by Section 1.03(a) of this Act that is south of Beltway 8 or east of U.S. Highway 59 may petition for exclusion of its territory from the authority's territory.

Before the 61st day after the date the authority receives the petition, the board shall:

- (1) grant the petition and order the territory excluded if the petition:

(A) includes an accurate legal description of the boundaries of the territory to be excluded; and

(B) the petition is filed with the authority before March 1, 2001; and

(2) if the board grants the petition, file for recording in the office of the county clerk of Harris County a copy of the order and a description of the authority's boundaries as they exist after the exclusion of the territory.

(b) The order excluding the territory is effective immediately after the order and description are recorded.

**SECTION 1.05. APPLICABILITY OF OTHER LAW.** (a) This Act prevails over any inconsistent provision of general law.

(b) This Act does not prevail over or preempt a provision of Chapter 151, Water Code, or Chapter 36, Water Code, that is being implemented by the subsidence district.

**SECTION 1.06. FINDING OF BENEFIT.** All the land and other property included within the boundaries of the authority will be benefited by the works and projects that are to be accomplished by the authority under powers conveyed by this Act. The authority is created to serve a public use and benefit.

### **ARTICLE 2. DIRECTORS**

**SECTION 2.01. BOARD OF DIRECTORS.** (a) The authority is governed by a board of five directors.

(b) The board shall appoint a person to fill a vacancy in the office of director until the next election for directors. If the position is not scheduled to be filled at the election, the person elected to fill the position serves only for the remainder of the unexpired term.

## **H.B. No. 2965 from the 76<sup>th</sup> Legislature, Regular Session, 1999**

(c) To be eligible to serve as director, a person must be a qualified voter in the voting district from which the person is elected or appointed.

**SECTION 2.02. METHOD OF ELECTION OF DIRECTORS.** (a) One director shall be elected from each of five single-member voting districts by the qualified voters of the voting district.

(b) A person shall indicate on the person's application for a place on the ballot the voting district that the person seeks to represent.

(c) In the manner described by Section 49.103(d), Water Code, the board shall redraw the single-member voting districts as soon as practicable after:

(1) each federal decennial census; and

(2) any change in the boundaries of the authority.

(d) At the first election after each time the voting districts are redrawn:

(1) five new directors shall be elected to represent the single-member voting districts; and

(2) the directors elected shall draw lots to determine their terms so that:

(A) two directors serve two-year terms; and

(B) three directors serve four-year terms.

(e) Subchapter C, Chapter 146, Election Code, applies to the consideration of votes for a write-in candidate for the initial permanent director or permanent director as if the authority were a municipality.

**SECTION 2.03. SERVICE OF DIRECTORS.** (a) Temporary directors serve until the initial permanent directors are elected under Section 2.05 of this Act.

(b) The initial permanent directors serve until permanent directors are elected under Section 2.06 of this Act.

(c) Permanent directors serve staggered four-year terms.

(d) A director serves until the director's successor has qualified.

**SECTION 2.04. TEMPORARY DIRECTORS.** (a) The temporary board of directors is composed of three individuals appointed by the commission.

(b) If a temporary director fails to qualify for office, the temporary directors who have qualified shall appoint a person to fill the vacancy. If at any time there are fewer than two qualified temporary directors, or if the temporary directors cannot agree on the appointment, the commission shall appoint the necessary number of persons to fill all vacancies on the board.

(c) A temporary director is not eligible to be elected under Section 2.05 of this Act.

**SECTION 2.05. CONFIRMATION AND INITIAL PERMANENT DIRECTORS ELECTION.** (a) The temporary board of directors shall:

(1) establish five single-member voting districts in the manner described by Section 49.103(d), Water Code; and

(2) on the first uniform election date of the calendar year 2000 hold an election to confirm the establishment of the authority and to elect five initial permanent directors.

(b) A person who desires to be a candidate for the office of initial permanent director may file an application with the temporary board to have the candidate's name printed on the ballot.

(c) At the confirmation and initial permanent directors election, the temporary board of directors shall have placed on the ballot:

(1) the name of each candidate filing for the office of director; and

## **H.B. No. 2965 from the 76<sup>th</sup> Legislature, Regular Session, 1999**

- (2) blank spaces to write in the names of other persons.
- (d) If the authority is created at the election, the temporary board of directors, at the time the vote is canvassed, shall:
  - (1) declare the qualified person who receives the most votes for each position to be elected as the initial director for that position; and
  - (2) include the results of the initial directors election in the authority's election report to the commission.
- (e) As soon as practicable after the initial permanent directors have qualified, the directors shall draw lots to determine their terms so that:
  - (1) two directors serve terms that expire when permanent directors are elected at the first election held under Section 2.06 of this Act; and
  - (2) three directors serve terms that expire when permanent directors are elected at the second election held under Section 2.06 of this Act.
- (f) Section 41.001(a), Election Code, does not apply to the confirmation and initial permanent directors election held under this section.
- (g) The temporary board of directors shall draft language for the ballot proposition used for the confirmation election. The ballot proposition must clearly and completely explain:
  - (1) the powers and duties of the authority;
  - (2) whether the authority has the power of eminent domain;
  - (3) whether the authority has the authority to issue bonds;
  - (4) whether the authority has the authority to impose taxes; and
  - (5) whether the authority has the authority to impose fees.
- (h) The ballot language must explain the nature of any fees or taxes the authority has the authority to impose.

**SECTION 2.06. ELECTION DATES.** On the first uniform election date of the calendar year in each subsequent even-numbered year, the appropriate number of directors shall be elected to the board.

**SECTION 2.07. COST OF ELECTION.** (a) The temporary board of the authority shall fund the cost of the confirmation and initial permanent directors election if the temporary board is able to find a reasonable means of funding the election.

(b) If the temporary board is unable to fund the entire cost of the election, the temporary board of the authority and the board of directors of the subsidence district may execute an agreement by which:

- (1) the subsidence district shall pay the portion of the costs that could not be funded by the district; and
- (2) the authority shall repay the subsidence district for those costs within a reasonable period.

### **ARTICLE 3. ADMINISTRATIVE PROVISIONS**

**SECTION 3.01. MEETINGS AND ACTIONS OF BOARD.** The board shall meet at least four times each year and may meet at any other time the board considers appropriate.

**SECTION 3.02. GENERAL MANAGER.** (a) The board shall employ a general manager as the chief administrative officer of the authority. The board may delegate to the general manager full authority to manage and operate the affairs of the authority subject only to the orders of the board.

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- (b) The duties of the general manager include:
  - (1) the administration of the orders of the board;
  - (2) coordination with state, federal, and local agencies;
  - (3) the oversight of development of authority plans and programs; and
  - (4) other duties assigned by the board.
- (c) The board shall determine the terms of office and employment and the compensation to be paid the general manager. The general manager may be discharged by majority vote of the board.

SECTION 3.03. EMPLOYEES; BONDS. (a) The general manager of the authority shall employ all persons necessary for the proper handling of the business and operations of the authority and may employ attorneys, bookkeepers, engineers, and other expert and specialized personnel the board considers necessary. The general manager shall determine compensation to be paid by the authority.

- (b) The general manager may discharge employees of the authority.
- (c) The general manager of the authority and each employee or contractor of the authority who is charged with the collection, custody, or payment of any money of the authority shall execute a fidelity bond in an amount determined by the board and in a form and with a surety approved by the board. The authority shall pay for the bond.

### **ARTICLE 4. POWERS AND DUTIES**

SECTION 4.01. GENERAL POWERS AND DUTIES. (a) The authority has all of the rights, powers, privileges, authority, functions, and duties necessary and convenient to accomplish the purposes of this Act, including those provided by Chapter 49, Water Code.

- (b) The authority may:
  - (1) provide for the conservation, preservation, protection, recharge, and prevention of waste of groundwater, and for the reduction of groundwater withdrawals, in a manner consistent with the purposes of Section 59, Article XVI, Texas Constitution;
  - (2) for the purposes of reducing groundwater withdrawals and subsidence, acquire or develop surface water and groundwater supplies from sources inside of or outside of the boundaries of the authority and may conserve, store, transport, treat, purify, distribute, sell, and deliver water to persons, corporations, municipal corporations, political subdivisions of the state, and others, inside of and outside of the boundaries of the authority;
  - (3) enter into contracts with persons, including political subdivisions of the state, on terms and conditions the board considers desirable, fair, and advantageous for the performance of its rights, powers, and authority under this Act;
  - (4) coordinate water services provided inside of, outside of, or into the authority; and
  - (5) administer and enforce the provisions of the Act.
- (c) The authority's rights, powers, privileges, authority, functions, and duties are subject to the continuing right of supervision of the state, to be exercised by and through the commission.
- (d) The authority shall exercise its rights, powers, privileges, and authority in a manner that will promote regionalization of water treatment and distribution.

SECTION 4.02. AUTHORITY RULES. (a) The authority shall adopt and enforce rules reasonably required to implement this Act, including rules governing procedures before the board.

- (b) The board shall compile its rules in a book and make them available for use and inspection at the authority's principal office.

SECTION 4.03. FEES AND CHARGES. (a) The authority may establish fees and charges

## **H.B. No. 2965 from the 76<sup>th</sup> Legislature, Regular Session, 1999**

as necessary to enable the authority to fulfill the authority's regulatory obligations provided by this Act.

(b) The authority may charge against the owner of a well located in the authority's boundaries a fee on the amount of water pumped from the well. The board shall establish the rate of a fee under this subsection only after a special meeting on the fee. The board by rule may exempt classes of wells from the fee under this subsection. The board may not apply the fee to a well:

- (1) with a casing diameter of less than five inches that serves a single-family dwelling;
- (2) regulated under Chapter 27, Water Code;
- (3) used for irrigation of agricultural crops;
- (4) that produces 10 million gallons or less annually; or
- (5) used solely for electric generation.

(c) Fees the board establishes must be sufficient to:

(1) achieve water conservation, prevent waste of water, serve as a disincentive to pumping groundwater, and accomplish the purposes of this Act, including making available alternative water supplies; and

(2) enable the authority to meet operation and maintenance expenses and pay the principal of and interest on debt issued in connection with the exercise of the authority's general powers and duties.

(d) The temporary board may set fees to pay for the initial operation of the authority and the election of the initial permanent board until the permanent board has been elected.

**SECTION 4.04. CIVIL PENALTY; INJUNCTION.** (a) A person who violates a rule or order of the authority is subject to a civil penalty of not less than \$50 and not more than \$5,000 for each violation or each day of a continuing violation.

(b) The authority may bring an action to recover the penalty in a district court in the county where the violation occurred. The penalty shall be paid to the authority.

(c) The authority may bring an action for injunctive relief in a district court in the county where a violation of an authority rule or order occurs or is threatened to occur. The court may grant to the authority, without bond or other undertaking, a prohibitory or mandatory injunction that the facts warrant, including a temporary restraining order, temporary injunction, or permanent injunction.

(d) The authority may bring an action for a civil penalty and injunctive relief in the same proceeding.

**SECTION 4.05. WATER SUPPLY PLANS.** The authority by rule shall, as needed but not less frequently than every five years, develop, prepare, revise, and adopt comprehensive water supply and drought contingency plans for various areas of the authority. The plans:

(1) must be consistent with regional planning; and  
(2) must include 10-year, 20-year, and 50-year projections of water needs within the authority.

**SECTION 4.06. ACQUISITION, CONSTRUCTION, AND OPERATION OF SYSTEMS.**

(a) The authority may:

(1) acquire and provide by purchase, gift, or lease a water treatment or supply system inside of or outside of the authority's boundaries;  
(2) design, finance, or construct a water treatment or supply system and provide water services inside of or outside of the authority's boundaries;

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(3) operate, lease, or sell a water treatment or supply system the authority constructs or acquires; and

(4) contract with any person to operate or maintain a water treatment or supply system the person owns.

(b) The authority shall give persons outside the authority's boundaries, including the city of Houston, the option to contract for available excess capacity of the authority's water treatment or supply system or, before construction of a water treatment or supply system begins, for additional capacity of the system. The authority must offer a contract that would enable the person to pay for the excess capacity or additional capacity in accordance with the person's pro rata share of the capital investment and operational and maintenance costs for providing the excess capacity or additional capacity.

**SECTION 4.07. SALE OR REUSE OF WATER OR BY-PRODUCT.** The authority may store, sell, or reuse:

(1) water; or

(2) any by-product from the authority's operations.

**SECTION 4.08. EMINENT DOMAIN.** The authority may exercise the power of eminent domain in the manner provided in Chapter 21, Property Code, to acquire property of any kind to further authorized purposes of the authority. The authority may not exercise the power of eminent domain outside of the boundaries of the authority.

**SECTION 4.09. CONTRACTS.** (a) The authority may enter into a contract with any person or legal entity regarding the performance of any purpose or function of the authority, including a contract to jointly construct, finance, own, or operate works, improvements, facilities, plants, equipment, or appliances necessary to accomplish a purpose or function of the authority. A contract may be of unlimited duration.

(b) The authority may purchase an interest in a project used for a purpose or function of the authority.

(c) The authority may contract for:

(1) the purchase or sale of water or water rights;

(2) the performance of activities within the powers of the authority to promote the continuing and orderly development of land and property in the authority through the purchase, construction, or installation of works, improvements, facilities, plants, equipment, or appliances so that, to the greatest extent possible, considering sound engineering practices and economic feasibility, all the land and property in the authority may receive services of the works, improvements, facilities, plants, equipment, or appliances of the authority; or

(3) the construction, ownership, maintenance, or operation of any works, improvements, facilities, plants, equipment, or appliances of the authority or another person or legal entity.

(d) The authority may purchase surplus property from this state, the United States, or another public entity through a negotiated contract without bids.

(e) An officer, agent, or employee of the authority who is financially interested in the contract of the type described by Subsection (d) of this section shall disclose the interest to the board before the board votes on the acceptance of the contract.

**SECTION 4.10. COOPERATION WITH AND ASSISTANCE OF OTHER GOVERNMENTAL ENTITIES.** (a) In implementing this Act, the board may cooperate with

## **H.B. No. 2965 from the 76<sup>th</sup> Legislature, Regular Session, 1999**

and request the assistance of the Texas Water Development Board, the commission, the United States Geological Survey, the subsidence district, other local governments, and other agencies of the United States and this state.

(b) The subsidence district may enter into an interlocal contract with the authority to carry out the authority's purposes and may carry out the governmental functions and services specified in the interlocal contract.

(c) The board shall coordinate with the city of Houston to develop an interregional plan for a system to distribute treated surface water in an economical and efficient manner.

**SECTION 4.11. GIFTS AND GRANTS.** The authority is authorized to accept a gift or grant from money collected by the subsidence district under Chapter 151, Water Code, to fund a water treatment or supply system. The authorization in this section is in addition to the authorization provided in Section 49.229, Water Code.

**SECTION 4.12. EXPENDITURES.** (a) The authority's money may be disbursed only by check, draft, order, or other instrument.

(b) Disbursements of the authority must be signed by at least two directors, except the board by resolution may allow the general manager, treasurer, bookkeeper, or other employee of the authority to sign disbursements.

(c) The board by resolution may allow disbursements to be transferred by federal reserve wire system to accounts in the name of the authority.

**SECTION 4.13. TAXATION.** The authority may not impose an ad valorem tax.

### **ARTICLE 5. NOTES AND BONDS**

**SECTION 5.01. REVENUE NOTES.** (a) The board, without an election, may borrow money on negotiable notes of the authority to be paid solely from the revenue derived from any legal source, including:

(1) tolls, charges, and fees the authority imposes;

(2) the sale of water, water or sewer services, or any other service or product of the authority;

(3) grants or gifts;

(4) the ownership and operation of all or a designated part of the authority's works, improvements, facilities, plants, or equipment; and

(5) contracts between the authority and any person, including a local government.

(b) The notes may be first or subordinate lien notes at the board's discretion. An obligation may not be a charge on the property of the authority. An obligation may only be a charge on revenue pledged for the payment of the obligation.

**SECTION 5.02. BONDS.** (a) To carry out a power or authority conferred by this Act, the authority may issue bonds secured by all or part of the revenue derived from any source, including any source described by Section 5.01(a) of this Act.

(b) In issuing or securing a bond or note of the authority, the authority may exercise any power of an issuer under Chapter 656, Acts of the 68th Legislature, Regular Session, 1983 (Article 717q, Vernon's Texas Civil Statutes).

(c) The authority may conduct a public, private, or negotiated sale of the bonds.

(d) The authority's bonds must:

(1) be authorized by board resolution;

(2) be issued in the authority's name;

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- (3) be signed by the president or vice president of the board, which may be accomplished by facsimile signature;
  - (4) be attested by the secretary of the board, which may be accomplished by facsimile signature; and
  - (5) bear the authority's seal or facsimile seal.
- (e) An authority bond may be secured by an indenture of trust with a corporate trustee.
- (f) The authority may issue bonds in more than one series as required for carrying out the purposes of this Act. In issuing bonds secured by revenue of the authority, the authority may reserve the right to issue additional bonds secured by the authority's revenue that are on a parity with or are senior or subordinate to the bonds issued earlier.
- (g) The resolution authorizing the bonds or the trust indenture securing the bonds may specify additional provisions that constitute a contract between the authority and its bondholders. The board may provide:

- (1) for additional bond provisions; and
- (2) for a corporate trustee or receiver to take possession of the authority's facilities if the authority defaults.

(h) Section 49.181, Water Code, does not apply to bonds or notes issued by the authority.

**SECTION 5.03. REFUNDING BONDS.** The provisions of this Act that apply to the authority's issuance of other bonds, their security, and the remedies of the holders apply to refunding bonds.

**SECTION 5.04. APPROVAL AND REGISTRATION OF BONDS.** After the authority authorizes bonds, the authority shall submit the bonds and the record relating to their issuance to the attorney general for approval. If the bonds are secured by a pledge of the proceeds of a contract between the authority and a municipality or other governmental agency, authority, or district, the authority shall submit to the attorney general a copy of the contract and the proceedings of the municipality or other governmental agency, authority, or district authorizing the contract. If the attorney general finds that the bonds have been authorized and each contract has been made in accordance with the constitution and laws of this state, the attorney general shall approve the bonds and contracts. On approval, the bonds shall be registered by the comptroller.

**SECTION 5.05. FUNDING BY OTHER DISTRICTS.** (a) The authority shall develop a procedure for cooperatively funding a project of the authority with money from other districts inside of the authority's boundaries if the authority project fulfills a governmental purpose of both the authority and other districts.

(b) Not later than the 90th day before the date the authority issues bonds, other than refunding bonds, to finance a project, the authority shall provide written notice of the authority's intention to issue the bonds to each district inside of the authority's boundaries that may be benefited or affected by the project. The notice must include the value of the bonds planned to be issued, a description of the project the bonds would finance, and a schedule of the portion of the project costs financed by the bonds that may be allocated to each district benefited or affected. The schedule must be prepared by means of a formula certified by the authority's engineer.

(c) A district may enter into a contract with the authority for the district to finance a portion of the proposed project with the district's resources instead of using proceeds from bonds of the authority for that purpose. The contract must be executed before the authority issues the bonds. As provided in the contract, the authority must:

## **H.B. No. 2965 from the 76<sup>th</sup> Legislature, Regular Session, 1999**

- (1) reduce the value of the bond issuance to the degree that the district provides project funding; and
- (2) credit the district for its contribution to the project financing and adjust the allocation of revenue pledged to the payment of the bonds so that the authority avoids using, to a degree commensurate with the contribution, revenue from the district to service the authority's bond debt or interest.

### **ARTICLE 6. MISCELLANEOUS PROVISIONS**

**SECTION 6.01. FINDINGS RELATED TO PROCEDURAL REQUIREMENTS.** (a) The proper and legal notice of the intention to introduce this Act, setting out the general substance of this Act, has been published as provided by law, and the notice and a copy of this Act have been furnished to all persons, agencies, officials, or entities to which they are required to be furnished by the constitution and other laws of this state, including the governor, who has submitted the notice and the Act to the commission.

(b) The commission has filed its recommendations relating to this Act with the governor, lieutenant governor, and speaker of the house of representatives within the required time.

(c) All requirements of the constitution and laws of this state and the rules and procedures of the legislature with respect to notice, introduction, and passage of this Act are fulfilled and accomplished.

**SECTION 6.02. EMERGENCY.** The importance of this legislation and the crowded condition of the calendars in both houses create an emergency and an imperative public necessity that the constitutional rule requiring bills to be read on three several days in each house be suspended, and this rule is hereby suspended, and that this Act take effect and be in force from and after its passage, and it is so enacted.

**H.B. No. 2965 from the 76<sup>th</sup> Legislature, Regular Session, 1999**

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President of the Senate

Speaker of the House

I certify that H.B. No. 2965 was passed by the House on April 22, 1999, by a non-record vote; and that the House concurred in Senate amendments to H.B. No. 2965 on May 19, 1999, by the following vote: Yeas 143, Nays 0, 2 present, not voting.

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Chief Clerk of the House

I certify that H.B. No. 2965 was passed by the Senate, with amendments, on May 17, 1999, by the following vote: Yeas 30, Nays 0.

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Secretary of the Senate

APPROVED: \_\_\_\_\_

Date

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Governor

# H.B. No. 1110 from the 77<sup>th</sup> Legislature, Regular Session, 2001

## AN ACT

relating to the North Harris County Regional Water Authority.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Section 1.02, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Subdivision (12) to read as follows:

(12) "Groundwater reduction plan" means a plan adopted or implemented to supply water, reduce reliance on groundwater, regulate groundwater pumping and water usage, or require and allocate water usage among persons in order to comply with or exceed the minimum requirements imposed by the subsidence district, including any applicable groundwater reduction requirements.

SECTION 2. Section 1.03, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Subsection (e) to read as follows:

(e) Notwithstanding Subsections (a) and (b) of this section, the authority does not include the territory of a district organized under Section 52, Article III, or Section 59, Article XVI, Texas Constitution, located within the area described by Subsections (a) and (b) of this section only if the territory meets both of the following criteria:

(1) any portion of the territory of the district was located outside the area described by Subsections (a) and (b) of this section on the effective date of this Act; and

(2) the district does not own, lease, or receive water for nonemergency purposes from a well located within the area described by Subsections (a) and (b) of this section.

SECTION 3. Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Section 1.045 to read as follows:

Sec. 1.045. INCLUSION OF CERTAIN TERRITORY. (a) The board of directors of a district organized under Section 52, Article III, or Section 59, Article XVI, Texas Constitution, all or part of which is not included within the boundaries of the authority under Section 1.03 of this Act, may request by petition the inclusion of its territory in the authority's territory. The petition must:

(1) be filed with the authority; and

(2) include an accurate legal description of the boundaries of the territory to be included.

(b) If the authority has bonds, notes, or other obligations outstanding, the board shall require the petitioning district to assume its share of the outstanding bonds, notes, or other obligations.

(c) Before the 61st day after the date the authority receives the petition, the board shall hold a hearing to consider the petition. The board may grant the petition and order the territory described in the petition included in the authority's territory if:

(1) it is feasible, practicable, and to the advantage of the authority; and

(2) the authority's system and other improvements of the authority are sufficient or will be sufficient to supply the added territory without injuring the territory already included in the authority.

## **H.B. No. 1110 from the 77<sup>th</sup> Legislature, Regular Session, 2001**

(d) If the board grants the petition, the board shall file for recording in the office of the county clerk of Harris County:

- (1) a copy of the order; and
- (2) a description of the authority's boundaries as they exist after the inclusion of the territory.

(e) The order including the territory is effective immediately after the order and description are recorded.

(f) A district that petitions before January 1, 2002, for inclusion within the territory of the authority shall not be required to pay any fee to the authority for admission or reimbursement for activities the authority has undertaken since its creation in the furtherance of its duties and functions. A district that petitions for inclusion within the territory of the authority on or after January 1, 2002, shall be subject to such fees and reimbursements as are in effect at the time of such petition and are applicable to such petitioners.

SECTION 4. Section 4.01, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by amending Subsection (b) and adding Subsections (e) through (h) to read as follows:

(b) The authority may:

(1) provide for the conservation, preservation, protection, recharge, and prevention of waste of groundwater[, and for the reduction of groundwater withdrawals,] in a manner consistent with the purposes of Section 59, Article XVI, Texas Constitution;

(2) for the purposes of reducing groundwater withdrawals and subsidence, acquire or develop surface water and groundwater supplies from sources inside of or outside of the boundaries of the authority and may conserve, store, transport, treat, purify, distribute, sell, and deliver water to persons, corporations, municipal corporations, political subdivisions of the state, and others, inside of and outside of the boundaries of the authority;

(3) enter into contracts with persons, including political subdivisions of the state, on terms and conditions the board considers desirable, fair, and advantageous for the performance of its rights, powers, and authority under this Act;

(4) coordinate water services provided inside of, outside of, or into the authority; [and]

(5) provide for the reduction of groundwater withdrawals by the development, implementation, or enforcement of a groundwater reduction plan as provided in Subsection (e) of this section;

(6) identify sources of water other than groundwater to be provided by the authority;

(7) specify the rates, terms, and conditions under which sources of water other than groundwater will be provided by the authority, which may be changed from time to time as deemed necessary by the authority;

(8) specify the dates and extent to which each person or district within the authority's boundaries shall accept water from the authority; and

(9) administer and enforce the provisions of the Act.

(e) The authority may develop, implement, participate in, and enforce a groundwater reduction plan. A groundwater reduction plan developed, implemented,

## H.B. No. 1110 from the 77<sup>th</sup> Legislature, Regular Session, 2001

participated in, or enforced by the authority shall be binding on persons, districts, entities, and wells within the authority's boundaries.

(f) The authority may contract on such terms as are mutually agreeable with any person or district located outside the authority to allow the person or district to be included in the authority's groundwater reduction plan. Such contracts shall have the same force and effect as if the person or district were located within the authority, except that the person or district shall not have the right to vote in elections for members of the board of the authority.

(g) The plan authorized by Subsection (e) of this section may be amended from time to time at the discretion of the authority subject to the requirements and procedures of the subsidence district applicable to the amendment of groundwater reduction plans.

(h) The groundwater reduction plan developed by the authority may exceed the minimum requirements imposed by the subsidence district, including without limitation any applicable groundwater reduction requirements.

SECTION 5. Section 4.08, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

Sec. 4.08. EMINENT DOMAIN. (a) The authority may exercise the power of eminent domain inside the boundaries of the authority [in the manner provided in Chapter 21, Property Code,] to acquire property of any kind to further the authorized purposes of the authority[. The authority may not exercise the power of eminent domain outside of the boundaries of the authority].

(b)(1) The authority may exercise the power of eminent domain outside the boundaries of the authority to acquire any land, easements, or other property for purposes of pumping, treating, storing, and transporting water.

(2) The authority may not use the power of eminent domain granted by Subsection (b)(1) of this section for the condemnation of land for the purpose of acquiring rights to underground water or water or water rights.

(3) The authority may not use the power of eminent domain granted by Subsection (b)(1) of this section to acquire property of any kind that is:

(A) owned by a municipality with a population of 1.6 million or more or any instrumentality of a municipality with a population of 1.6 million or more, including any local government corporation created by the municipality; or

(B) located within the corporate boundaries of a municipality with a population of 1.6 million or more for limited or general purposes as of February 1, 2001.

(4) Notwithstanding Subsection (b)(3)(B) of this section, the authority may use the power of eminent domain granted by Subsection (b)(1) of this section to acquire property:

(A) within the corporate boundaries of a municipality with a population of 1.6 million or more if:

(i) the condemnation is to be used to provide facilities between two points that are within the authority; and

(ii) the area within the municipality is

## **H.B. No. 1110 from the 77<sup>th</sup> Legislature, Regular Session, 2001**

bounded by a line parallel to and 150 feet north of the north side of Greens Bayou and by a line parallel to and 150 feet south of the south side of Greens Bayou;

(B) that is within the corporate boundaries of a municipality with a population of 1.6 million and annexation of the territory by the municipality was completed between January 1, 1962, and January 1, 1964; or

(C) that is within an area of the corporate boundaries of a municipality with a population of 1.6 million or more if the municipality grants permission for such condemnation.

(c) The power of eminent domain granted by Subsections (a) and (b) of this section shall be exercised in the manner provided in Chapter 21, Property Code, except that the authority shall not be required to give bond for appeal or bond for costs in any condemnation suit, or other suit to which it is a party, and shall not be required to deposit more than the amount of any award in any suit.

(d) When exercising the power of eminent domain granted by Subsections (a) and (b) of this section, the authority may elect to condemn either the fee simple or a lesser property interest.

(e) The authority may not exercise the power of eminent domain granted by Subsections (a) and (b) of this section to acquire property of any kind in a county that:

(1) has a population of more than 245,000;

(2) borders the Gulf of Mexico; and

(3) is adjacent to a county with a population of more than 1.6 million.

SECTION 6. Section 4.12(b), Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

(b) Disbursements of the authority must be signed by at least two directors, except, notwithstanding any other law, the board by resolution may allow the general manager, treasurer, bookkeeper, or other employee of the authority to sign disbursements.

SECTION 7. Article 4, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Section 4.14 to read as follows:

Sec. 4.14. INCLUDED DISTRICTS. A district inside of the authority's boundaries retains its separate identity, powers, and duties, except that the district is subject to the powers and duties of the authority, including those powers and duties of the authority necessary to develop, implement, and enforce a groundwater reduction plan.

SECTION 8. Section 1.04, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is repealed.

SECTION 9. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2001.

**H.B. No. 1110 from the 77<sup>th</sup> Legislature, Regular Session, 2001**

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President of the Senate

Speaker of the House

I certify that H.B. No. 1110 was passed by the House on March 21, 2001, by the following vote: Yeas 146, Nays 0, 1 present, not voting.

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Chief Clerk of the House

I certify that H.B. No. 1110 was passed by the Senate on May 17, 2001, by the following vote: Yeas 30, Nays 0, 1 present, not voting.

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Secretary of the Senate

APPROVED: \_\_\_\_\_

Date

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Governor

By: \_\_\_\_\_

S.B. No. 331

A BILL TO BE ENTITLED

AN ACT

relating to the North Harris County Regional Water Authority.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Subsection (c), Section 2.02, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

(c) In the manner described by Section 49.103(d), Water Code, the board shall redraw the single-member voting districts [~~as required by law~~] as soon as practicable after [+  
[+1+] each federal decennial census[+] and as otherwise required by law  
[+2+] any change in the boundaries of the authority  
~~which increases the total area of the authority by more than 20 percent~~].

SECTION 2. Section 4.10, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Subsections (e) through (j) to read as follows:

(e) The authority may expedite the financing and construction of all or part of a surface water delivery system, or such other activities as are within the power of the authority, as necessary to accomplish the conversion to groundwater before any time required by the subsidence district or as determined by the board to be in the interest of the authority or one or more districts inside or outside the authority.

\_\_\_\_\_.B. No. \_\_\_\_

1        (f) Except to the extent expressly prohibited by any statute  
2        administered by the commission, the commission shall cooperate with  
3        and assist the authority to the maximum extent possible to  
4        accomplish the development of a surface water delivery system, and  
5        projects to which Subsection (e) of this section applies, within  
6        the time frame determined by the authority. In this section,  
7        "surface water delivery system" includes facilities that:

8              (1) may be used temporarily or permanently to  
9        transport groundwater between utility districts, if in the future  
10      such facilities will in reasonable probability become part of a  
11      surface water delivery system; or  
12              (2) are necessary or convenient to a purpose within  
13      the power of the authority to undertake, such as the management of  
14      water, water conservation, and water reuse.

15        (g)(1) In carrying out its duties under Subsection (f) of  
16      this section, the commission may grant conditional approval of  
17      construction projects of the authority, or waive the requirements  
18      of any commission rule or statute administered by the commission,  
19      if such conditional approval or waiver will not compromise the  
20      public health or safety. The authority bears the risk of conforming  
21      the construction of any project which is granted conditional  
22      approval or for which a waiver has been granted under this  
23      subsection if changes in the construction become necessary to  
24      protect the public health or safety as determined by the  
25      commission.

26        (2) The commission may not require the authority to  
27      tender contracts between the authority and any other person as a

—.B. No. —

1   precondition of approving any construction project of the  
2   authority. If the commission by rule requires contracts of other  
3   entities before approving a construction project of such entities,  
4   the authority may address by regulation the subject matters that  
5   would otherwise be required by commission rule to be addressed by  
6   such contracts. A regulation adopted by the authority under this  
7   section shall serve for all purposes to satisfy the commission's  
8   rules that would otherwise be satisfied by contractual provisions.  
9   The regulations may allocate responsibilities between the  
10   authority and a district or person within the boundaries of the  
11   authority as needed to satisfy the commission's rules relating to  
12   the construction or operation of all or part of a surface water  
13   delivery system or any project that is necessary or convenient to  
14   manage water within the authority and that the authority has the  
15   power to undertake.

16       (h) The commission and the authority may enter into a  
17   memorandum of understanding. The memorandum of understanding may:

18           (1) establish standard procedures for processing  
19   construction projects of the authority for final or conditional  
20   approval;

21           (2) establish standing waivers or conditions  
22   applicable to projects of the authority;

23           (3) delegate powers to the authority to carry out any  
24   duty of the commission related to any activity that the authority  
25   has the power to undertake;

26           (4) set standards to be met by construction or other  
27   projects of the authority; or

—.B. No. —

1                 (5) address any other matter that it is necessary or  
2         convenient for the parties to address and that relates to an  
3         activity that the authority has the power to undertake and the  
4         commission has the power to regulate or assist.

5                 (i) To comply with commission rules that would otherwise  
6         require the authority to state specific amounts of water that may or  
7         will be provided to another entity receiving water from the  
8         authority, the authority may state the amounts in ranges, and those  
9         ranges may be changed by the authority if the commission is promptly  
10         notified of the change.

11                 (j) The provisions of Subsections (e)-(i) of this section  
12         prevail over any other law or commission rule, including any other  
13         provision of this Act.

14                 SECTION 3. This Act takes effect immediately if it receives  
15         a vote of two-thirds of all the members elected to each house, as  
16         provided by Section 39, Article III, Texas Constitution. If this  
17         Act does not receive the vote necessary for immediate effect, this  
18         Act takes effect September 1, 2005.

S.B. No. 1725

## AN ACT

relating to the North Harris County Regional Water Authority.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Subsection (d), Section 1.03, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

(d) Except to the extent the authority agrees in writing, a municipality's annexation of territory within the authority has no effect on the authority's ability to assess and collect inside the territory annexed by the municipality the types of fees, rates, charges, or special assessments that the authority was assessing and collecting at the time the municipality initiated the annexation; provided, however, that the authority's ability to assess and collect such fees, rates, charges, or special assessments shall terminate on the later to occur of (i) the date of final payment or defeasance of any bonds or other indebtedness, including any refunding bonds, that are secured by such fees, rates, charges, or special assessments, or (ii) the date that the authority no longer provides services inside the annexed territory.  
[On a municipality's annexation of any of the authority's territory, the annexed territory is excluded from the authority's territory.] The authority shall continue to provide services to the annexed territory in accordance with contracts in effect at the time of the annexation unless a written agreement between the board and the governing body of the municipality provides otherwise.

SECTION 2. Subsection (c), Section 2.02, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended to read as follows:

(c) In the manner described by Section 49.103(d), Water Code, the board shall redraw the single-member voting districts as required by law as soon as practicable after:

(1) each federal decennial census; and  
(2) any change in the boundaries of the authority which increases the total area of the authority by more than 20 percent.

SECTION 3. Section 4.10, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is amended by adding Subsection (d) to read as follows:

(d) Notwithstanding any inconsistent provision of general law or of a home-rule municipal charter or ordinance, the authority and a municipality may enter into a contract of unlimited duration.

SECTION 4. Subsections (a) and (c), Section 5.05, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, are amended to read as follows:

(a) The authority may [shall] develop a procedure for cooperatively funding a project of the authority with money from other political subdivisions located entirely [~~districts~~] inside [~~or~~] the authority's boundaries, and may develop a procedure for cooperatively funding a project of the authority with money from

political subdivisions located in whole or in part outside the authority's boundaries, water supply corporations, or other private entities, if the authority project fulfills a governmental purpose of both the authority and other political subdivisions, or fulfills a governmental purpose of the authority that the authority determines would be furthered by cooperative funding from a private entity [districts].

(c) A political subdivision [district] may enter into a contract with the authority for the political subdivision [district] to finance a portion of the proposed project with the political subdivision's [district's] resources instead of using only the proceeds from bonds of the authority for that purpose. The contract must be executed before the authority issues the bonds. As provided in the contract, the authority may [must]:

(1) reduce the value of the bond issuance to the degree that the political subdivision [district] provides project funding; and

(2) credit the political subdivision [district] for its contribution to the project financing and adjust the allocation of revenue pledged to the payment of the bonds so that the authority avoids using, to a degree reasonably commensurate with the contribution, revenue from the political subdivision [district] to service the authority's bond debt or interest.

SECTION 5. Subsection (b), Section 5.05, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, is repealed.

SECTION 6. The change in law made by Subsection (d), Section 4.10, Chapter 1029, Acts of the 76th Legislature, Regular Session, 1999, as added by this Act, applies only to a contract between the North Harris County Regional Water Authority and a municipality that was entered into after January 1, 2002.

SECTION 7. This Act takes effect immediately if it receives a vote of two-thirds of all the members elected to each house, as provided by Section 39, Article III, Texas Constitution. If this Act does not receive the vote necessary for immediate effect, this Act takes effect September 1, 2003.

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President of the Senate

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Speaker of the House

I hereby certify that S.B. No. 1725 passed the Senate on May 1, 2003, by the following vote: Yeas 31, Nays 0; and that the Senate concurred in House amendments on May 30, 2003, by the following vote: Yeas 31, Nays 0.

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Secretary of the Senate

I hereby certify that S.B. No. 1725 passed the House, with amendments, on May 28, 2003, by the following vote: Yeas 144, Nays 0, two present not voting.

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Chief Clerk of the House

Approved:

---

Date

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Governor

AN ACT

2 relating to powers of the North Harris County Regional Water  
3 Authority relating to certain wells.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

5 SECTION 1. Section 4.03, Chapter 1029, Acts of the 76th  
6 Legislature, Regular Session, 1999, is amended by adding Subsection  
7 (e) to read as follows:

(e) Notwithstanding

a charge under Subsection (b) on a well or class of wells located within the boundaries of the authority that, on or after June 30,

(1) ceases to be subject to a groundwater reduction

SECTION 2. The North Harris County Regional Water Authority retains all rights, powers, privileges, authorities, duties, and functions which it had before the effective date of this Act.

SECTION 3. (a) The legislature validates and confirms all governmental acts and proceedings of the North Harris County

2       Regional Water Authority that were taken before the effective date  
3       of this Act.

4 (b) This section does not apply to any matter that on the

1 effective date of this Act:

2                 (1) is involved in litigation if the litigation  
3 ultimately results in the matter being held invalid by a final court  
4 judgment; or

5                 (2) has been held invalid by a final court judgment.

6                 SECTION 4. (a) The legal notice of the intention to  
7 introduce this Act, setting forth the general substance of this  
8 Act, has been published as provided by law, and the notice and a  
9 copy of this Act have been furnished to all persons, agencies,  
10 officials, or entities to which they are required to be furnished  
11 under Section 59, Article XVI, Texas Constitution, and Chapter 313,  
12 Government Code.

13                 (b) The governor, one of the required recipients, has  
14 submitted the notice and Act to the Texas Commission on  
15 Environmental Quality.

16                 (c) The Texas Commission on Environmental Quality has filed  
17 its recommendations relating to this Act with the governor, the  
18 lieutenant governor, and the speaker of the house of  
19 representatives within the required time.

20                 (d) All requirements of the constitution and laws of this  
21 state and the rules and procedures of the legislature with respect  
22 to the notice, introduction, and passage of this Act are fulfilled  
23 and accomplished.

24                 SECTION 5. This Act takes effect immediately if it receives  
25 a vote of two-thirds of all the members elected to each house, as  
26 provided by Section 39, Article III, Texas Constitution. If this  
27 Act does not receive the vote necessary for immediate effect, this

1 Act takes effect September 1, 2013.

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President of the Senate

Speaker of the House

I certify that H.B. No. 3934 was passed by the House on May 10, 2013, by the following vote: Yeas 142, Nays 1, 2 present, not voting.

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Chief Clerk of the House

I certify that H.B. No. 3934 was passed by the Senate on May 22, 2013, by the following vote: Yeas 31, Nays 0.

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Secretary of the Senate

APPROVED:

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Date

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Governor

## APPENDIX B. TOTAL WATER USAGE

HGSD Permit Year September 2012- August 2013

MUD NAME	Groundwater (gal)	Surface Water Used (gal)	Alternate Water (gal)	Total Water Consumption
170 Dowdell Limited/M.U.D. 480/NHCRWA	12,955,000	-	-	12,955,000
2920 Venture, Ltd./NHCRWA	4,385,300	-	-	4,385,300
Aqua Texas, Inc./NHCRWA (Atascocita Acres)	8,231,000	-	-	8,231,000
Aqua Texas, Inc./NHCRWA (Bammel Oaks II)	5,029,000	-	-	5,029,000
Aqua Texas, Inc./NHCRWA (Berry Hill)	4,166,000	-	-	4,166,000
Aqua Texas, Inc./NHCRWA (Boudreaux Gardens)	4,693,000	-	-	4,693,000
Aqua Texas, Inc (Candlelight Hills)	4,773,000	106,131,000	-	110,904,000
Aqua Texas, Inc./NHCRWA (Country Club Green)	13,017,000	-	-	13,017,000
Aqua Texas, Inc./NHCRWA (Creekside Estates)	24,321,000	-	-	24,321,000
Aqua Texas, Inc./NHCRWA (Cricket Hills Estates)	3,315,000	-	-	3,315,000
Aqua Texas, Inc./NHCRWA (Cypress Fields)	18,739,000	-	-	18,739,000
Aqua Texas, Inc./NHCRWA (Cypress Place)	5,755,000	-	-	5,755,000
Aqua Texas, Inc./NHCRWA (Heron Lakes)	119,791,000	-	-	119,791,000
Aqua Texas, Inc./NHCRWA (Lakes Of Rosehill)	100,307,000	-	-	100,307,000
Aqua Texas, Inc./NHCRWA (Marks Glen)	13,881,000	-	-	13,881,000
Aqua Texas, Inc./NHCRWA (Mobile Home Estates)	17,977,000	-	-	17,977,000
Aqua Texas, Inc./NHCRWA (Oakwood Village)	5,596,000	-	-	5,596,000
Aqua Texas, Inc./NHCRWA (Park Forest)	21,213,000	-	-	21,213,000
Aqua Texas, Inc./NHCRWA (Rolling Oaks)	9,301,000	-	-	9,301,000
Aqua Texas, Inc./NHCRWA (Stable Gate)	50,470,000	-	-	50,470,000
Aqua Texas, Inc./NHCRWA (The Estates of Willow Creek)	23,142,000	-	-	23,142,000
Atascocita Golf Club/NHCRWA	-	-	-	-
Austin/Texas Golf Ventures, L.P./NHCRWA	43,238,000	-	-	43,238,000
Bammel Forest Utility Company	-	-	-	-
Bammel U.D.	12,194,000	119,197,000	-	131,391,000
Bayer Water System/NHCRWA	28,152,200	-	-	28,152,200
Bilma P.U.D.	97,008,000	203,070,000	-	300,078,000
Boy's Country of Houston, Inc./NHCRWA	21,572,000	-	-	21,572,000
Bridgestone M.U.D.	193,972,000	499,268,000	-	693,240,000
Bud Adams Ranches, Inc.	4,104,000	-	-	4,104,000
Campbell Ready Mix, LP/NHCRWA	17,214,700	-	-	17,214,700
Cemex Construction Materials South LLC	24,269,800	-	-	24,269,800
Champion Forest Baptist Church/NHCRWA	6,639,500	-	-	6,639,500
Champions Golf Club, Inc./NHCRWA	73,766,900	-	-	73,766,900
Champions Lakeside Club/NHCRWA	7,307,800	-	-	7,307,800
Charterwood M.U.D.	45,801,000	186,832,000	-	232,633,000
CMH Parks, Inc./NHCRWA	48,691,800	-	-	48,691,800
CNP Utility District	122,275,000	334,929,000	-	457,204,000
Coles Crossing Comm. Assoc., Inc./NHCRWA	14,606,500	-	-	14,606,500
Consumers Water Corporation/NHCRWA	25,866,000	-	-	25,866,000
Cy-Champ P.U.D.	63,577,000	227,220,000	5,085,000	295,882,000
Cy-Forest Water Supply Corporation/NHCRWA	16,279,200	-	-	16,279,200
Cypress Creek U.D./NHCRWA	173,034,000	-	-	173,034,000
Cypress Forest P.U.D.	113,700,000	386,960,000	-	500,660,000
Cypress Hill M.U.D. 1/NHCRWA	415,159,000	-	-	415,159,000
Cypress Lakes Golf Course/NHCRWA	80,949,300	-	-	80,949,300
Cypress-Klein U.D.	72,336,000	215,422,000	-	287,758,000
Cypresswood Ltd./NHCRWA	95,335,330	-	-	95,335,330
Deerbrook Estates, Ltd.	7,576,500	-	-	7,576,500
Deere Landscaping, John/NHCRWA	5,805,800	-	-	5,805,800
Dowdell P.U.D./NHCRWA	155,677,000	-	-	155,677,000
Emerald Forest U.D.	223,933,000	-	24,578,000	248,511,000
Encanto Real U.D./NHCRWA	45,832,000	-	-	45,832,000
Enchanted Valley Water Supply/NHCRWA	18,612,000	-	-	18,612,000
Fairway MHV/NHCRWA	3,529,300	-	-	3,529,300
Faulkey Gully M.U.D.	152,924,000	353,191,000	-	506,115,000
Fountainhead M.U.D.	-	166,862,900	-	166,862,900
Furlong, Ltd./NHCRWA	3,027,500	-	-	3,027,500
Gleannloch Farms Community Assoc./NHCRWA	79,531,800	-	-	79,531,800
Gleannloch Pines, Ltd./NHCRWA	5,890,000	-	-	5,890,000
Grant Road P.U.D.	89,739,000	86,019,000	-	175,758,000
Grantwood Civic Club/NHCRWA	6,760,000	-	-	6,760,000
Harris Co. F.W.S.D. 52	61,839,000	209,953,000	-	271,792,000
Harris Co. F.W.S.D. 61/NHCRWA	837,220,000	-	-	837,220,000
Harris Co. I.D. 18/NHCRWA	44,974,000	-	-	44,974,000
Harris Co. M.U.D. 1/NHCRWA	297,924,000	-	-	297,924,000
Harris Co. M.U.D. 16	-	167,962,000	-	167,962,000
Harris Co. M.U.D. 18	35,137,000	191,314,000	-	226,451,000
Harris Co. M.U.D. 24	263,527,000	293,723,000	-	557,250,000
Harris Co. M.U.D. 25/NHCRWA	133,722,000	-	-	133,722,000

## APPENDIX B. TOTAL WATER USAGE

HGSD Permit Year September 2012- August 2013

MUD NAME	Groundwater (gal)	Surface Water Used (gal)	Alternate Water (gal)	Total Water Consumption
Harris Co. M.U.D. 26/NHCRWA	373,207,000	-	-	373,207,000
Harris Co. M.U.D. 43/NHCRWA	146,030,000	-	-	146,030,000
Harris Co. M.U.D. 44	8,027,000	114,853,000	-	122,880,000
Harris Co. M.U.D. 69/NHCRWA	143,959,000	-	-	143,959,000
Harris Co. M.U.D. 82/NHCRWA	314,526,000	-	-	314,526,000
Harris Co. M.U.D. 86	31,969,000	192,887,000	-	224,856,000
Harris Co. M.U.D. 104	23,974,000	160,432,000	-	184,406,000
Harris Co. M.U.D. 109/NHCRWA	373,115,000	-	-	373,115,000
Harris Co. M.U.D. 168/NHCRWA	387,027,000	-	-	387,027,000
Harris Co. M.U.D. 170/NHCRWA	69,213,000	-	-	69,213,000
Harris Co. M.U.D. 191	27,030,000	198,804,000	-	225,834,000
Harris Co. M.U.D. 202	8,416,000	118,626,000	-	127,042,000
Harris Co. M.U.D. 222/NHCRWA	223,258,000	-	-	223,258,000
Harris Co. M.U.D. 230/NHCRWA	240,894,000	-	12,719,600	253,613,600
Harris Co. M.U.D. 233	1,090,000	96,926,000	-	98,016,000
Harris Co. M.U.D. 249/NHCRWA	168,451,000	-	-	168,451,000
Harris Co. M.U.D. 275	2,054,000	38,306,000	-	40,360,000
Harris Co. M.U.D. 280 & 281/NHCRWA	388,955,000	-	-	388,955,000
Harris Co. M.U.D. 286	25,453,000	182,495,000	-	207,948,000
Harris Co. M.U.D. 358/NHCRWA	974,065,000	-	-	974,065,000
Harris Co. M.U.D. 360/NHCRWA	312,964,000	-	-	312,964,000
Harris Co. M.U.D. 364/365/NHCRWA	605,954,000	-	-	605,954,000
Harris Co. M.U.D. 367 & 383	277,557,000	415,274,000	44,879,000	737,710,000
Harris Co. M.U.D. 368	31,429,000	311,348,000	-	342,777,000
Harris Co. M.U.D. 387/NHCRWA	688,596,000	-	-	688,596,000
Harris Co. M.U.D. 389/NHCRWA	47,124,000	-	-	47,124,000
Harris Co. M.U.D. 391/NHCRWA	274,495,000	-	-	274,495,000
Harris Co. M.U.D. 401/NHCRWA	110,353,000	-	-	110,353,000
Harris Co. M.U.D. 468	730,000	144,710,200	-	145,440,200
Harris Co. W.C.&I.D. 91	7,094,000	92,440,000	-	99,534,000
Harris Co. W.C.&I.D. 92/NHCRWA	175,267,000	-	-	175,267,000
Harris Co. W.C.&I.D. 99/NHCRWA	96,832,000	-	-	96,832,000
Harris Co. W.C. & I.D. 109	193,218,000	321,926,000	-	515,144,000
Harris Co. W.C.&I.D. 110	157,436,000	293,120,000	-	450,556,000
Harris Co. W.C.&I.D. 113/NHCRWA	56,781,000	-	-	56,781,000
Harris Co. W.C.&I.D. 114	99,959,000	245,255,000	-	345,214,000
Harris Co. W.C.&I.D. 116	61,549,000	192,711,000	-	254,260,000
Harris Co. W.C.&I.D. 119	56,406,000	273,656,600	-	330,062,600
Harris Co. W.C.&I.D. 132	53,388,000	255,074,000	-	308,462,000
Harris Co. W.C.&I.D. 136/NHCRWA	87,091,000	-	-	87,091,000
Harris County/NHCRWA (AD Dyess Park)	7,516,400	-	-	7,516,400
Harris County/NHCRWA (Burroughs Park-Lake)	10,188,200	-	-	10,188,200
Harris County/NHCRWA (Mercer Park S)	14,261,200	-	-	14,261,200
Harris County/NHCRWA (Meyer Park North)	11,784,500	-	-	11,784,500
Harris County/NHCRWA (Meyer Park South)	6,331,200	-	-	6,331,200
Harris County/NHCRWA (Zube Park)	4,894,800	-	-	4,894,800
Heatherloch M.U.D.	31,018,000	171,959,000	-	202,977,000
HMW Special Utility District/NHCRWA (2920 West)	14,604,000	-	-	14,604,000
HMW Special Utility District/NHCRWA (Alice Acres)	7,887,000	-	-	7,887,000
HMW Special Utility District/NHCRWA (Brandywine Pines)	7,781,000	-	-	7,781,000
HMW Special Utility District/NHCRWA (Cypress Pass)	5,188,000	-	-	5,188,000
HMW Special Utility District/NHCRWA (Holly Lakes)	2,079,000	-	-	2,079,000
HMW Special Utility District/NHCRWA (Rosewood Hills)	42,185,000	-	-	42,185,000
HMW Special Utility District/NHCRWA (Timberwilde)	11,091,000	-	-	11,091,000
HMW Special Utility District/NHCRWA (Village of New Kentucky)	28,803,000	-	-	28,803,000
HMW Special Utility District/NHCRWA (Willow Oaks)	10,463,000	-	-	10,463,000
Hoe Water Supply Corporation/NHCRWA	11,822,700	-	-	11,822,700
Houston Garden Center #20/NHCRWA	6,385,900	-	-	6,385,900
Houston Race Park, Sam/NHCRWA	9,170,500	-	-	9,170,500
Hunters Glen M.U.D./NHCRWA	210,098,000	-	-	210,098,000
Inline Development Corp./NHCRWA	30,877,000	-	-	30,877,000
Inverness Forest I.D./NHCRWA	95,353,600	-	-	95,353,600
J & S Water Co. (C & P Utilities, Inc.)	60,562,800	-	-	60,562,800
Jersey Village, City of/NHCRWA	46,436,000	-	526,079,000	572,515,000
Johnston Utilities, Inc./NHCRWA	45,955,596	-	-	45,955,596
Klein I.S.D./NHCRWA	5,432,000	-	-	5,432,000
Klein P.U.D.	61,523,000	144,386,000	-	205,909,000
Kleinwood M.U.D.	73,070,000	198,000,000	-	271,070,000
Kwik-Kopy Corporation/NHCRWA	11,389,000	-	-	11,389,000
Lake Forest U.D./NHCRWA	317,696,000	-	-	317,696,000

## APPENDIX B. TOTAL WATER USAGE

HGSD Permit Year September 2012- August 2013

MUD NAME	Groundwater (gal)	Surface Water Used (gal)	Alternate Water (gal)	Total Water Consumption
Lakes at Northpoint HOA/NHCRWA	9,770,100	-	-	9,770,100
Lakes of Cypress Forest HOA/NHCRWA	28,641,800	-	-	28,641,800
Lakes of Fairfield H.O.A., The/NHCRWA	68,663,900	-	-	68,663,900
Lakes of Windermere HOA/NHCRWA	19,140,000	-	-	19,140,000
Lanier, Becky (Becky's Land Development)	6,472,800	-	-	6,472,800
Lattimore Materials Company, LP/NHCRWA	9,261,500	-	-	9,261,500
Leaman Building Materials, L.P./NHCRWA	10,165,690	-	-	10,165,690
Lismore Lake H.O.A./NHCRWA	6,297,200	-	-	6,297,200
Lochinvar Golf Club/NHCRWA	88,544,300	-	-	88,544,300
Longwood Golf Club/NHCRWA (WSG Longwood, IV, LP)	60,595,000	-	-	60,595,000
Louetta North P.U.D.	14,433,000	184,484,000	-	198,917,000
Louetta Road U.D.	16,265,000	-	-	16,265,000
Malcomson Road U.D.	47,316,000	354,595,000	-	401,911,000
MC Equities, LLC/NHCRWA (Timbercrest Community Associates, Inc.)	38,777,300	-	-	38,777,300
Meadowhill Regional M.U.D./NHCRWA	251,046,000	-	-	251,046,000
Memorial Hills U.D./NHCRWA	66,906,000	-	-	66,906,000
Millenium/Brazoria Co. Water Corp./ NHCRWA	10,222,362	-	-	10,222,362
Mills Road M.U.D./NHCRWA	172,971,000	-	-	172,971,000
North Cypress Medical Center Operating Co., Ltd./NHCRWA	11,954,400	-	-	11,954,400
North Harris County Regional Water Authority	3,218,500	-	-	3,218,500
North Park P.U.D./NHCRWA	197,593,000	-	-	197,593,000
Northhampton M.U.D./NHCRWA	388,306,000	-	-	388,306,000
Northgate Country Club	-	-	125,358,524	125,358,524
Northgate Crossing M.U.D. 2/NHCRWA	226,818,000	-	-	226,818,000
Northlake Forest HOA/ NHCRWA	-	-	-	-
Northland Joint Venture/NHCRWA	1,085,800	-	-	1,085,800
Northwest Airport Management/NHCRWA	9,565,500	-	-	9,565,500
Northwest Freeway M.U.D./NHCRWA	86,983,000	-	-	86,983,000
Northwest Water Systems, Inc./NHCRWA	14,475,912	-	-	14,475,912
NW Harris Co. M.U.D. 5	634,933,000	179,337,000	-	814,270,000
NW Harris Co. M.U.D. 6	6,899,000	56,069,000	-	62,968,000
NW Harris Co. M.U.D. 9/NHCRWA	306,262,000	-	-	306,262,000
NW Harris Co. M.U.D. 10/NHCRWA	425,245,000	-	-	425,245,000
NW Harris Co. M.U.D. 15/NHCRWA	150,355,000	-	-	150,355,000
NW Harris Co. M.U.D. 19/NHCRWA	194,272,000	-	-	194,272,000
NW Harris Co. M.U.D. 20	4,534,000	157,211,000	-	161,745,000
NW Harris Co. M.U.D. 21	7,179,000	188,855,000	-	196,034,000
NW Harris Co. M.U.D. 23	3,555,000	152,349,000	-	155,904,000
NW Harris Co. M.U.D. 24	743,000	83,666,000	-	84,409,000
NW Harris Co. M.U.D. 29/NHCRWA	199,684,000	-	-	199,684,000
NW Harris Co. M.U.D. 30	121,930,000	95,094,000	-	217,024,000
NW Harris Co. M.U.D. 32/NHCRWA	215,375,000	-	-	215,375,000
NW Harris Co. M.U.D. 36	12,208,000	132,482,000	-	144,690,000
Oak Hill Estates Water, LLC	8,096,000	-	-	8,096,000
Oakmont P.U.D./NHCRWA	177,374,000	-	-	177,374,000
PARC Splashtown, LLC/NHCRWA (Six Flags Splashtown L.P. in OPRS)	40,869,000	-	-	40,869,000
Pilot Industries of Texas, Inc./NHCRWA	7,005,400	-	-	7,005,400
Pinewood Place, Inc./NHCRWA	34,760,280	-	-	34,760,280
Pitcairn Water Supply Corp./NHCRWA	8,025,000	-	-	8,025,000
Ponderosa Forest U.D.	59,691,000	336,589,000	-	396,280,000
Post Wood M.U.D./NHCRWA	98,532,000	-	-	98,532,000
Prestonwood Forest U.D.	70,404,000	174,707,000	-	245,111,000
Quadvest (Waterstone Estates)	19,982,000	-	-	19,982,000
Raveneaux Country Club/NHCRWA	37,769,600	-	-	37,769,600
Reid Road M.U.D. 1/NHCRWA	261,083,950	-	-	261,083,950
Reid Road M.U.D. 2/NHCRWA	182,982,000	-	-	182,982,000
Reserve at Cypress Creek/NHCRWA	8,351,599	-	-	8,351,599
Richey Road M.U.D./NHCRWA	130,360,000	-	-	130,360,000
Rock Creek Community Association/NHCRWA	39,380,000	-	-	39,380,000
S C Utilities, Inc./NHCRWA	30,362,400	-	-	30,362,400
Salem Lutheran Church of Rosehill/NHCRWA	8,529,000	-	-	8,529,000
Sasson, Eli/NHCRWA	15,986,500	-	-	15,986,500
Shasla P.U.D./NHCRWA	140,803,000	-	-	140,803,000
Spring Creek Forest P.U.D.	40,739,000	120,199,000	-	160,938,000
Spring West M.U.D./NHCRWA	99,901,000	-	-	99,901,000
Suburban Utility Company/NHCRWA	18,886,000	-	-	18,886,000
Sugarberry 35, L.P., Utah Limited Partnership/NHCRWA	23,747,600	-	-	23,747,600
Sydney Harbour/NHCRWA	9,779,900	-	-	9,779,900

## APPENDIX B. TOTAL WATER USAGE

HGSD Permit Year September 2012- August 2013

MUD NAME	Groundwater (gal)	Surface Water Used (gal)	Alternate Water (gal)	Total Water Consumption
Sysco Resources Services, LLC/NHCRWA	16,479,000	-	-	16,479,000
Tall Pines Utility/K & L Utility/NHCRWA	10,037,000	-	-	10,037,000
Tattor Road M.U.D./NHCRWA	170,448,000	-	-	170,448,000
Terranova West M.U.D.	10,289,000	230,237,000	-	240,526,000
Tifco, Inc./NHCRWA	6,753,000	-	-	6,753,000
Timberlake I.D./NHCRWA	124,763,000	-	-	124,763,000
Timberlane U.D./NHCRWA	487,365,000	-	-	487,365,000
Tomball, City of/NHCRWA	832,993,000	-	-	832,993,000
Tour 18 Capital Partners LP/NHCRWA	12,237,700	-	-	12,237,700
Tower Oak Bend Water Supply/NHCRWA	14,743,000	-	-	14,743,000
Trinity @ Windfern, LLC/NHCRWA	9,061,500	-	-	9,061,500
Trinity So GP, LLC/NHCRWA	4,958,000	-	-	4,958,000
Utilities Investment Co., Inc./NHCRWA	94,167,500	-	-	94,167,500
Vintage Lakes/V & W Partners, Ltd./NHCRWA	2,607,000	-	-	2,607,000
W. Harris Co. M.U.D. 9/NHCRWA	120,648,000	-	-	120,648,000
W. Harris Co. M.U.D. 10/NHCRWA	373,311,000	-	-	373,311,000
W. Harris Co. M.U.D. 11/NHCRWA	371,660,000	-	-	371,660,000
W. Harris Co. M.U.D. 21/NHCRWA	181,685,000	-	-	181,685,000
Waller I.S.D./NHCRWA	5,853,100	-	-	5,853,100
Waterstone Estates HOA/NHCRWA	7,849,800	-	-	7,849,800
Waynewood Place Civic Club, Inc./NHCRWA	7,604,800	-	-	7,604,800
Westador M.U.D.	39,322,000	231,889,000	-	271,211,000
Westside Water, LLC/NHCRWA	177,964,000	-	-	177,964,000
White Oak Bend M.U.D./NHCRWA	86,135,000	-	-	86,135,000
White Oak Manor MHP/NHCRWA	17,034,000	-	-	17,034,000
Willow Creek Golf Club/NHCRWA	28,624,400	-	-	28,624,400
Wimbledon Falls C. A./NHCRWA	6,018,100	-	-	6,018,100
Wind Rose C.A./NHCRWA	15,026,400	-	-	15,026,400
Woodlands Land Dev. Co., LP, The/NHCRWA	90,529,700	-	-	90,529,700
Woodmark Water, LLC/NHCRWA	21,693,100	-	-	21,693,100
<b>Total<sup>1</sup></b>	<b>22,357,994,019</b>	<b>10,589,005,700</b>	<b>738,699,124</b>	<b>33,685,698,843</b>

Note:

1. This is for permitted ground well production only, i.e., production totaled greater or equal to 5.0 mg per year

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02-1123

**WATER SUPPLY CONTRACT BETWEEN  
THE CITY OF HOUSTON, TEXAS AND  
THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

**THIS WATER SUPPLY CONTRACT ("Contract") is made by and between the CITY OF HOUSTON, TEXAS ("Houston") and the NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY ("Authority").**

**WITNESSETH:**

**Recitals**

Houston is a municipal corporation and home-rule city, principally located in Harris County, Texas. Houston owns a water treatment and distribution system and desires to sell water to the Authority.

The Authority is a Texas conservation and reclamation district organized and operating under the provisions of House Bill No. 2965, Seventy-Sixth Legislature, Regular Session (1999), as amended by House Bill 1110, Senate Bill 1444 and Senate Bill 2, Seventy-Seventh Legislature (2001), and the Texas Water Code, as amended. The Authority desires to purchase potable treated surface water from Houston for distribution and use for domestic, commercial, and other purposes.

Houston is authorized to enter into this Contract pursuant to its Home Rule Charter and Section 402.021 of the Texas Local Government Code.

The Authority is authorized to enter into this Contract pursuant to the provisions of the Texas Water Code, as amended.

Houston, as the regional water supplier and principal owner of surface water in Harris County, desires to provide potable treated surface water to the unincorporated area of Harris County to meet the Harris-Galveston Coastal Subsidence District ("HGCSD") requirements for Area Three as defined by the HGCSD's 1999 District Regulatory Plan, as amended.

**NOW, THEREFORE,** for and in consideration of the premises and the mutual covenants and agreements herein contained, the parties hereto do mutually agree as follows:

**ARTICLE I**

**Definitions**

Unless the context requires otherwise, the following terms as used in this Contract shall have meanings as follows:

"Advisory Committee" is defined in Section 8.17.

"Annual Audit" is defined in Section 4.06.

"Annual Interest Payment" is defined in Section 3.03.

"Annual New Untreated Water Facilities Payment" is defined in Section 3.02(c).

"Annual O&M Budget" is defined in Section 4.03.

"Annual Outstanding Debt Service" means the amount of debt service (principal and interest) actually owed by Houston during a Houston fiscal year on any and all bonds, notes, or other obligations for construction and acquisition of New Untreated Water Facilities.

"Authority System" shall mean all facilities owned and operated by the Authority to enable the Authority to receive Water from the Houston System, including without limitation, transmission lines, inter-connection lines, storage facilities, booster pumps, meter vaults, casings, air gap or other backflow prevention controls, valves and flow control devices.

"Commencement of Delivery of Water" shall mean commencement of delivery of Water for consumption and shall not mean delivery of Water for line testing or flushing purposes.

"Existing Untreated Water Facilities" means those facilities listed in Exhibit "A".

"GRP" is defined in Section 8.18.

"Houston System" shall mean all of Houston's Water production, treatment and distribution facilities, including all treatment plants, mains, distribution lines, booster pumps, storage tanks and meter facilities.

"Initial Untreated Water Facilities Demand Allocation" is defined in Section 3.02(a).

"Interest Rate" means the 20 City Municipal Bond Index on the first day of the Houston fiscal year during which the Contract is executed, which the parties hereby agree equals 5.10%.

"Major Rehabilitations" are major capital projects required to maintain and operate the Plant Facilities and Transmission Facilities at their current capacity or as required by applicable regulatory requirements and estimated to cost in excess of \$500,000.

"MGD" shall mean million of gallons per day of Water.

"New Untreated Water Facilities" means any untreated surface water canals, reservoirs, lakes, water rights, or other untreated surface water facilities not listed in Exhibit "A" that are hereafter constructed or acquired by Houston pursuant to Section 3.02(c).

"O&M Expenses" are defined in Section 4.02.

"O&M Reserve" is 25% of the then-current Annual O&M Budget.

"Outstanding Debt" means the amount of principal owed by Houston on any and all bonds, notes, or other obligations for construction and acquisition of Existing Untreated Water Facilities.

"Payment for Existing Untreated Water Facilities" is defined in Sections 3.02 (a), (b), and (c), as applicable.

"Payment for Untreated Water Facilities Costs Avoided" is defined in Section 3.02(c).

"Plant Facilities" means those facilities listed in Exhibit "B".

"Point(s) of Delivery" shall mean the output flanges of the tap(s) on Houston's System that will serve the Authority under the provisions of this Contract, as more particularly identified and described on Exhibit "C" attached hereto and incorporated herein for all purposes.

"Point(s) of Measurement" shall mean the location of the meter(s) at which the Authority's consumption of Water is measured, as more particularly described on Exhibit "C" attached hereto and incorporated herein for all purposes. All Point(s) of Measurement shall be at the Point(s) of Delivery, unless mutually agreed to in writing by the Utility Official and the Authority.

"Reservation" means a written request from the Authority, at the Authority's option, that is approved in writing by the Utility Official, seeking the Utility Official's approval to increase the Authority's then-current Untreated Water Facilities Demand Allocation and/or its Treated Water Facilities Demand Allocation.

"Ten Year Period" is defined in Section 3.02(c).

"Transmission Facilities" are those transmission lines and facilities described and shown on Exhibit "D".

"Treated Water Facilities" is defined in Section 3.03.

"Treated Water Facilities Capital Contribution" is defined in Section 3.03.

"Treated Water Facilities Capital Costs" means the actual costs incurred by Houston to construct or acquire the Treated Water Facilities, including engineering, testing services, construction, construction management, right-of-way, legal and auditing expenses, expenses related to contractor claims, and cost for services of employees of Houston for construction of the Treated Water Facilities.

"Treated Water Facilities Demand Allocation" is defined in Section 3.03.

"Untreated Water Facilities" means the Existing Untreated Water Facilities plus any New Untreated Water Facilities.

"Untreated Water Facilities Demand Allocation" is defined in Section 3.02.

"Utility Official" shall mean the Utility Official of the Department of Public Works and Engineering of Houston, or any other person who may hereafter exercise the functions of said Utility Official.

"Water" shall mean potable treated surface water from the Houston System serving its own inhabitants.

"Water Demand Allocation" shall mean the maximum amount of Water the Authority is entitled to take pursuant to the terms of this Contract and pursuant to the Authority's then current Treated Water Facilities Demand Allocation.

## ARTICLE II

### Construction of Facilities

#### Section 2.01 Construction by Houston

Houston shall be responsible for the design, construction, ownership, maintenance and operation of the Untreated Water Facilities and the Treated Water Facilities, which facilities are upstream from the Point(s) of Delivery.

#### Section 2.02 Construction by the Authority of Certain Facilities

The Authority shall be responsible for the design, construction, ownership, maintenance and operation of all facilities located downstream of the Point(s) of Delivery necessary to enable it to receive Water at the Point(s) of Delivery. The Authority shall obtain the Utility Official's approval of all plans and specifications of the Authority facilities in the Authority System, which approval shall not be unreasonably delayed or withheld.

#### Section 2.03 Time of Completion

If not already constructed, Houston agrees to proceed with due diligence to construct the facilities described in this Article in order to provide the quantities of Water to the Authority required by this Contract.

#### Section 2.04 Point(s) of Delivery

The Point(s) of Delivery for Water sold under this Contract shall be located at the physical point(s) of connection between the Houston System and the Authority System shown on Exhibit "C". Additional Point(s) of Delivery and Point(s) of Measurement may be added from time to time, by mutual agreement of the Authority and the Utility Official.

## ARTICLE III

### Sale and Delivery of Water

#### Section 3.01 Delivery of Water

Subject to the terms and conditions of this Contract, beginning January 1, 2010, and continuing thereafter, Houston shall deliver and make available to the Authority at the Point(s) of Delivery the amount of Water that equals the Water Demand Allocation. If for any reason the Authority takes more Water than its Water Demand Allocation during any given day, the

Authority shall pay Houston for operation and maintenance charges associated with such excess Water pursuant to Article IV of this Contract but will not be deemed to have increased its Untreated Water Facilities Demand Allocation or Treated Water Facilities Demand Allocation.

The Authority may, but is not obligated to, purchase Water from Houston in order to satisfy the Authority's year 2020 and year 2030 HGCSD conversion requirements. Currently, the Authority's total Water need is projected to be 31 MGD for the year 2010, 89 MGD for the year 2020 and 90 MGD for the year 2030. In the event the Authority purchases such Water from Houston by increasing its Water Demand Allocation by Reservation, the cost sharing formulas and methods of calculating payments by the Authority to Houston that are provided in this Article III shall apply.

The Utility Official shall send the Authority written approval of any Authority Reservation request within ninety (90) days of receipt of same if Houston at the time of the Reservation request has sufficient capacity to serve the increase requested by the Authority. If Houston does not at that time have sufficient capacity to serve the increase requested by the Authority, the Utility Official shall send a written rejection of such Reservation request to the Authority within ninety (90) days of receipt of same, which rejection shall also advise the Authority of what new facilities are necessary to serve the requested Reservation. Unless the Utility Official agrees to a lesser period, the Authority shall provide a Reservation request at least five (5) years prior to the date the Authority requires the increase of its then-current Untreated Water Facilities Demand Allocation and/or its Treated Water Facilities Demand Allocation. The Utility Official shall provide the Authority with a copy of any Reservation request submitted by the West Harris County Regional Water Authority within twenty (20) days of the Utility Official's receipt of same.

### Section 3.02 Untreated Water Capital Costs.

Untreated Water Facilities Demand Allocation shall mean 31 MGD; provided, however, that in the event the Authority increases its Untreated Water Facilities Demand Allocation pursuant to the terms of this Contract, then Untreated Water Facilities Demand Allocation shall mean such total increased amount.

#### Section 3.02(a) Initial Untreated Water Facilities Demand Allocation

On no more than three (3) occasions prior to the year 2010, the Authority may, at its option, purchase any portion(s) of its 31 MGD Untreated Water Facilities Demand Allocation (the "Initial Untreated Water Facilities Demand Allocation") by payment to Houston of the Payment for Existing Untreated Water Facilities pursuant to this Section 3.02(a). The Authority

shall be obligated to purchase all of its Initial Untreated Water Facilities Demand Allocation no later than December 31, 2009, by payment to Houston of the Payment for Existing Untreated Water Facilities pursuant to this Section 3.02(a). The Payment for Existing Untreated Water Facilities under this Section 3.02(a) shall be calculated as follows:

$$\text{Payment for Existing Untreated Water Facilities} = (A/B)C$$

Where: "A" is the portion (in MGD) of the Initial Untreated Water Facilities Demand Allocation to be purchased.

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2001, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities listed in Exhibit "A".

The Authority shall make the Payment for Existing Untreated Water Facilities to Houston for the Initial Untreated Water Facilities Demand Allocation, according to the above formula, upon the Authority's receipt of written notice from Houston showing the amount of such payment and the calculation therefor, but no earlier than the date of commencement of delivery of such Initial Untreated Water Facilities Demand Allocation. Effective immediately upon the Authority's payment for the Initial Untreated Water Facilities Demand Allocation, the Authority shall be entitled to take such Water.

In the event the Authority, as indicated by a written notice from the Authority to Houston, seeks to pay Houston the Payment for Existing Untreated Water Facilities over a maximum period of fifteen (15) years (with interest) in lieu of a lump sum payment, the Authority and the Utility Official shall in good faith negotiate a separate written agreement providing for such payment terms. If the Authority and the Utility Official are unable to enter into a separate written agreement upon terms mutually agreeable to both parties, then the Authority shall be required to pay the Payment for Existing Untreated Water Facilities to Houston as a lump sum payment.

In the event Houston constructs or acquires New Untreated Water Facilities for any reason, the Authority shall, in addition to the Payment for Existing Untreated Water Facilities paid under this Section 3.02(a), owe Houston the Annual New Untreated Water Facilities Payment, as provided in Section 3.02(c) (2).

Exhibit "E" hereto includes: (i) the Initial Untreated Water Facilities Demand Allocation to be purchased by the Authority, (ii) the Outstanding Debt (as of June 30, 2001); and (iii) the total amount (in MGD) of factor "B" for the calculation of the Payment for Existing Untreated Water Facilities under this Section 3.02(a).

Section 3.02(b) Reservation Not Requiring Construction of New Untreated Water Facilities.

In the event the Authority submits a Reservation request on or after January 1, 2010, to the Utility Official for an increase in its Untreated Water Facilities Demand Allocation and Houston then has capacity available in the Existing Untreated Water Facilities to serve such increase, the Utility Official shall, within ninety (90) days of the Authority's request for the Reservation, send written approval of such Reservation request to the Authority. For the approved Reservation, the Authority shall owe Houston a Payment for Existing Untreated Water Facilities under this Section 3.02(b), calculated as follows:

$$\text{Payment for Existing Untreated Water Facilities} = (A/B)C$$

Where: "A" is the amount (in MGD) of the increase of the Authority's Untreated Water Facilities Demand Allocation pursuant to a Reservation under this Section 3.02(b).

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year that precedes the fiscal year during which the Authority's Reservation request is approved in writing by the Utility Official, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities listed in Exhibit "A" as of the first day of Houston's fiscal year in which the Authority's Reservation request is approved in writing by the Utility Official.

If the Authority submits a Reservation request to the Utility Official prior to January 1, 2010, and Houston then has capacity available in the Existing Untreated Water Facilities to serve such increase, then, for purposes of calculating the Payment for Existing Untreated Water Facilities under this Section 3.02(b) for such Reservation only, factors "B" and "C" of Section 3.02(a) shall be used instead of factors "B" and "C" of this Section 3.02(b).

The Authority shall pay Houston the Payment for Existing Untreated Water Facilities under this Section 3.02(b) no later than sixty (60) days after the Authority sends written notice to Houston that the Authority requires Water from its Reservation made pursuant to this Section

3.02(b). The Authority shall send notice to Houston that the Authority requires Water from its Reservation no later than five (5) years after the date of the Utility Official's written approval of the Reservation.

In the event the Authority, as indicated by a written notice from the Authority to Houston, seeks to pay Houston the Payment for Existing Untreated Water Facilities over a maximum period of fifteen (15) years (with interest) in lieu of a lump sum payment, the Authority and the Utility Official shall in good faith negotiate a separate written agreement providing for such payment terms. If the Authority and the Utility Official are unable to enter into a separate written agreement upon terms mutually agreeable to both parties, then the Authority shall be required to pay the Payment for Existing Untreated Water Facilities to Houston as a lump sum payment.

In the event Houston constructs or acquires New Untreated Water Facilities for any reason, the Authority shall, in addition to the Payment for Existing Untreated Water Facilities, if any, paid under this Section 3.02(b), owe Houston the Annual New Untreated Water Facilities Payment, as provided in Section 3.02(c)(2).

Section 3.02(c) New Untreated Water Facilities.

In the event the Authority sends a Reservation request to the Utility Official for an increase in its Untreated Water Facilities Demand Allocation and Houston does not then have capacity available in the Existing Untreated Water Facilities to serve such increase, the Utility Official shall send a written rejection of such Reservation request to the Authority within ninety (90) days of the Utility Official's receipt of such Reservation request, which rejection shall also advise the Authority of what New Untreated Water Facilities are necessary to serve the requested Reservation. If the Authority thereafter seeks to increase its Untreated Water Facilities Demand Allocation, it shall send written notice to the Utility Official of the Authority's need for New Untreated Water Facilities and the amount (in MGD) of its requested Reservation. After receipt of such Authority notice, Houston shall promptly construct or acquire New Untreated Water Facilities and the Authority shall owe Houston the Payment for Existing Untreated Water Facilities plus the Annual New Untreated Water Facilities Payment under this Section 3.02(c). Upon completion of the New Untreated Water Facilities necessary to serve the Authority's requested Reservation, the Authority's Reservation request shall be deemed approved by the Utility Official.

In the event Houston constructs or acquires New Untreated Water Facilities for any reason but the Authority does not desire capacity in the New Untreated Water Facilities and accordingly does not make a Reservation request under this Section 3.02(c), the Authority shall owe Houston the Annual New Untreated Water Facilities Payment under Section 3.02(c)(2) (based on the Authority's then-current Untreated Water Facilities Demand Allocation), but the Authority shall not owe Houston the Payment for Existing Untreated Water Facilities under Section 3.02(c)(1).

The Payment for Existing Untreated Water Facilities and the Annual New Untreated Water Facilities Payment under this Section 3.02(c) shall be calculated based on the formula:

$$(A/B)C + (D/E)F$$

and shall be calculated as follows:

(1) Payment for Existing Untreated Water Facilities =  $(A/B)C$

Where: "A" is the amount (in MGD) of the increase of the Authority's Untreated Water Facilities Demand Allocation pursuant to a Reservation under this Section 3.02(c).

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year that precedes the fiscal year during which the Utility Official's written statement regarding lack of available capacity is issued, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities listed in Exhibit "A" as of the first day of Houston's fiscal year in which the Utility Official's written statement regarding lack of available capacity is issued.

(2) Annual New Untreated Water Facilities Payment =  $(D/E)F$

Where: "D" is the then-current Untreated Water Facilities Demand Allocation, plus the amount, if any, (in MGD) that the Authority seeks to increase its Untreated Water Facilities Demand Allocation upon completion of the New Untreated Water Facilities, as identified in the applicable Authority Reservation request, if any, pursuant to this Section 3.02(c).

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's

untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"F" is the Annual Outstanding Debt Service for all New Untreated Water Facilities as of the first day of the Houston fiscal year in which Houston calculates the Annual New Untreated Water Facilities Payment.

The Authority shall pay Houston the Payment for Existing Untreated Water Facilities, if due under this Section 3.02(c), no later than sixty (60) days after the Authority receives written certification from the Utility Official that construction of the New Untreated Water Facilities necessary to serve the Authority's requested Reservation is complete.

In the event the Authority, as indicated by a written notice from the Authority to Houston, seeks to pay Houston the Payment for Existing Untreated Water Facilities over a maximum period of fifteen (15) years (with interest) in lieu of a lump sum payment, the Authority and the Utility Official shall in good faith negotiate a separate written agreement providing for such payment terms. If the Authority and the Utility Official are unable to enter into a separate written agreement upon terms mutually agreeable to both parties, then the Authority shall be required to pay the Payment for Existing Untreated Water Facilities to Houston as a lump sum payment.

Within ninety (90) days after Houston's first issuance of bonds, notes, or other obligations to finance any New Untreated Water Facilities pursuant to this Section 3.02(c), Houston shall calculate the Annual New Untreated Water Facilities Payment according to the formula above and send written notice to the Authority of Houston's calculation and the amount of the payment due from the Authority for the fiscal year in which Houston issues such bonds, notes or other obligations. For each Houston fiscal year thereafter, Houston shall calculate the Annual New Untreated Water Facilities Payment according to the above formula and send written notice to the Authority of Houston's calculation and the amount of the payment due from the Authority within ninety (90) days of the last day of the previous Houston fiscal year. Each year, the Authority shall pay Houston the Annual Untreated Water Facilities Payment within sixty (60) days of its receipt of such notice from Houston. The Authority shall owe Houston the Annual Untreated Water Facilities Payment each year during the life of the Houston bonds, notes or other obligations used to finance the New Untreated Water Facilities or until this Contract is no longer in effect, whichever occurs first. To assist the Authority in its financial planning, Houston shall, prior to the last day of each Houston fiscal year, send a written statement to the Authority

of Houston's reasonable estimate of the Annual Outstanding Debt Service for the following three (3) Houston fiscal years.

Houston shall maintain each Annual New Untreated Water Facilities Payment in an interest-bearing account, which interest shall be credited to the account of the Authority. Houston shall use the Annual New Untreated Water Facilities Payments, and interest accrued thereon, only for the purpose of paying Annual Outstanding Debt Service. Within one hundred eighty (180) days of the last day of each Houston fiscal year, Houston shall prepare an accounting of the Annual Outstanding Debt Service actually paid by Houston on the New Untreated Water Facilities during such fiscal year. Houston shall engage an independent certified public accounting firm to audit such accounting. Houston and the Authority agree to "true-up" the Annual New Untreated Water Facilities Payment made by the Authority such that if the Authority has underpaid, taking into account interest accrued, it will pay Houston such shortfall within sixty (60) days of receiving the final audit, and Houston agrees to refund to the Authority any overpayment, taking into account interest accrued, within sixty (60) days of Houston receiving the final audit if the Authority overpaid.

In the event Houston intends to construct or acquire New Untreated Water Facilities for any reason, Houston shall send written notice to the Authority of such intent at least one hundred eighty (180) days before Houston's first issuance of bonds, notes or other obligations to finance such New Untreated Water Facilities. If the Authority desires to increase its Untreated Water Facilities Demand Allocation, it shall submit a Reservation request pursuant to this Section 3.02(c) within ninety (90) days after receipt of such notice of intent from Houston.

If the Authority's Untreated Water Facilities Demand Allocation is increased pursuant to a Reservation under this Section 3.02(c), then the payment for all subsequent Reservations of the Untreated Water Facilities Demand Allocation (regardless of whether or not they require construction of New Untreated Water Facilities) shall be calculated and made pursuant to the hereinbefore formulas of this Section 3.02(c) and not Sections 3.02(a) or (b). If within ten (10) years after Houston's first issuance of bonds, notes, or other obligations to finance New Untreated Water Facilities pursuant to this Section 3.02(c) (the "Ten Year Period"), the Authority submits a Reservation request that does not require the construction of New Untreated Water Facilities, the Authority shall pay Houston the Payment for Untreated Water Facilities Costs Avoided. The Payment for Untreated Water Facilities Costs Avoided shall equal the total dollar

amount, without interest or penalty, of the Payment for Existing Untreated Water Facilities and the total accrued Annual New Untreated Water Facilities Payments which would have been paid by the Authority, according to the hereinbefore formulas of this Section 3.02(c), had the Authority made a Reservation request for such increase prior to Houston's first issuance of bonds, notes, or other obligations to finance the New Untreated Water Facilities. The Payment for Untreated Water Facilities Costs Avoided shall be made to Houston within one hundred twenty (120) days of the Authority's receipt of the Utility Official's approval of such later Reservation request. The Authority shall not owe Houston the Payment for Untreated Water Facilities Costs Avoided if: (i) the Authority submits a Reservation request within the Ten Year Period that requires the construction of New Untreated Water Facilities; or (ii) the Authority submits a Reservation request, regardless of whether or not it requires construction of New Untreated Water Facilities, after the Ten Year Period.

Section 3.03 Treated Water Capital Costs.

Treated Water Facilities Demand Allocation shall mean 31 MGD; provided, however, that in the event the Authority increases its Treated Water Facilities Demand Allocation pursuant to the terms of this Contract, then Treated Water Facilities Demand Allocation shall mean such total increased amount.

Except as provided elsewhere in this Section 3.03, the Authority shall pay Houston its pro-rata Treated Water Facilities Capital Contribution for the Plant Facilities and the Transmission Facilities (collectively, the "Treated Water Facilities") as follows: (i) for Treated Water Facilities constructed prior to the effective date of this Contract or those Treated Water Facilities listed in Exhibits "B" and "D", upon the later of (A) ninety (90) days after the effective date of this Contract or (B) the date that the Authority's GRP is certified by the HGCSD, but in no event later than July 1, 2003; (ii) for Treated Water Facilities constructed prior to the date of the Utility Official's written consent of any Reservation request from the Authority, no later than sixty (60) days after the Authority receives the Utility Official's written consent for the Authority to increase its Treated Water Facilities Demand Allocation; and (iii) for Treated Water Facilities not constructed prior to the date of the Utility Official's written consent of any Reservation request from the Authority, sixty (60) days after receipt of the Utility Official's reasonable estimate of the Treated Water Facilities Capital Contribution.

The cost for any Reservation of Treated Water Facilities Demand Allocation shall be in accordance with the formulas set forth in this Section 3.03. Upon request from the Authority,

Houston shall promptly provide the Authority with Houston's cost calculation, in accordance with the cost formulas in this Section 3.03, for any Reservation of the Treated Water Facilities Demand Allocation, that at that time may be under consideration by the Authority. Any Authority written request for such a Reservation shall include Houston's cost calculation. The Utility Official shall either approve or reject, in writing, the Authority's Reservation request within ninety (90) days after receipt of such request. If the Utility Official fails to approve such request within such ninety (90)-day period, the Reservation request shall be deemed rejected. A Reservation for Treated Water Facilities not constructed prior to the date of the Reservation request must be approved by the Board of Directors for the Authority before Houston will commence design and construction of the designated Treated Water Facilities.

- (1) For Treated Water Facilities that are in service before the effective date of the Contract or the date of any Reservation request, the Authority's pro-rata Treated Water Facilities Capital Contribution is based on the formula:

$$\text{Treated Water Facilities Capital Contribution} = (A - B) \times (C/D)$$

- (2) For Treated Water Facilities that are not in service before the effective date of any Reservation request, the Authority's pro-rata Capital Contribution is based on the formula:

$$\text{Treated Water Facilities Capital Contribution} = A \times (C/D)$$

Where: "A" is the Treated Water Facilities Capital Costs of the Treated Water Facilities.

"B" is the amount of depreciation calculated by applying the 50-year straight line depreciation method for the period of time running between the in-service date of the facilities and the effective date of the Contract, or for any Reservation made by the Authority, the date of such Reservation request (i.e. 2% of Treated Water Facilities Capital Costs per year).

"C" is the Treated Water Facilities Demand Allocation in MGD to be purchased.

"D" is the capacity in MGD of the particular facility. The capacity for transmission lines shall be calculated at a flow rate of 5 feet per second.

The Authority may defer payment of the Treated Water Facilities Capital Contribution for the initial 31 MGD Treated Water Facilities Demand Allocation for the period of time running from the date payment is due pursuant to this Section 3.03 to the date payment is made, but no later than commencement of the delivery of Water, by annually paying Houston an annual interest payment ("Annual Interest Payment"). The Annual Interest Payment shall be calculated by multiplying the Treated Water Facilities Capital Contribution times the Interest Rate. If the Authority does not pay Houston the Treated Water Facilities Capital Contribution on the date payment is due pursuant to this Section 3.03, then the Authority shall pay Houston the Annual Interest Payment on such date and, thereafter, on the anniversary date of such payment until the Authority has paid Houston the Treated Water Facilities Capital Contribution. Because the Annual Interest Payment constitutes the payment of annual interest in advance, in the event the Authority pays Houston the Treated Water Facilities Capital Contribution prior to the anniversary date of any Annual Interest Payment made by the Authority, Houston shall, within sixty (60) days of its receipt of the Treated Water Facilities Capital Contribution, refund to the Authority, with interest at the Interest Rate, the pro-rated portion of such Annual Interest Payment based on the amount of days remaining in such annual period. Houston shall not be required to deliver Water to the Authority until the Authority has paid Houston its Treated Water Facilities Capital Contribution for the Treated Water Facilities Demand Allocation of 31 MGD, plus any interest costs due from the Authority to Houston pursuant to this paragraph.

In the event there is no final design and construction for the Treated Water Facilities on the date that any Reservation request is submitted by the Authority to the Utility Official, the pro-rata Treated Water Facilities Capital Contribution shall be paid in two (2) increments:

(i) For the pro-rata Treated Water Facilities Capital Contribution for design engineering services, including surveys, soils boring and testing, as well as design services, the Utility Official must provide the Authority a reasonable estimate of the pro-rata Treated Water Facilities Capital Contribution for such services based on Houston's contract with the design engineer. The Authority shall deposit with Houston the amount of the Utility Official's reasonable estimate within sixty (60) days of its receipt of such estimate.

(ii) For the pro-rata Treated Water Facilities Capital Contribution for the cost of construction of the Treated Water Facilities, the Utility Official must provide the Authority a reasonable estimate of the pro-rata Treated Water Facilities Capital Contribution for the

construction based on the lowest responsible bid received plus estimated costs for construction management, engineering, testing services and a 15% contingency. The Authority shall deposit with Houston the amount of the Utility Official's reasonable estimate within sixty (60) days of its receipt of such estimate.

All Authority pro-rata Treated Water Facilities Capital Contribution deposits shall be kept by Houston in an account. Houston shall spend money from the account only for Treated Water Facilities Capital Costs and/or debt service.

Within ninety (90) days of the acceptance of the completed construction of the subject Treated Water Facilities, Houston shall cause an accounting to be made of the Treated Water Facilities Capital Costs. Houston shall engage an independent certified public accounting firm to audit its accounting. As soon as the firm has completed the audit, Houston shall submit the audited accounting to the Authority. The accounting shall state the difference between the estimated Treated Water Facilities Capital Costs that were paid by the Authority and the actual Treated Water Facilities Capital Costs.

If the actual Treated Water Facilities Capital Costs, as determined by the audited accounting, are less than the estimated Treated Water Facilities Capital Costs paid by the Authority, resulting in an overpayment by the Authority of its pro-rata share, Houston shall refund such difference with actual interest accrued, within ninety (90) days of the date of the receipt of the accounting by the Authority.

If the actual Treated Water Facilities Capital Costs, as determined by the accounting, are more than the estimated Treated Water Facilities Capital Costs paid by the Authority, resulting in an underpayment by the Authority of its pro-rata share, the Authority shall pay Houston, within ninety (90) days of the date of the receipt of the accounting by the Authority, such difference with interest calculated at the actual interest rate of the debt incurred by Houston in order to pay for such difference, running from the time Houston paid for the Authority's pro-rata share of Treated Water Facilities Capital Costs (resulting from such Authority underpayment) to the time such underpayment is paid to Houston by the Authority.

The Treated Water Facilities applicable to the Authority and the corresponding Treated Water Facilities Capital Contribution calculations for such Treated Water Facilities are shown on Exhibit "F" hereto.

## ARTICLE IV

### Operation and Maintenance Charges

#### Section 4.01 In General

It is expressly understood by the Authority that it shall directly reimburse Houston on a periodic basis for the expenses incurred in producing and treating the Water delivered to the Authority. The Authority pledges to enact rates and fees for its customers sufficient to pay the O&M Expenses.

#### Section 4.02 O&M Expenses Calculation

For the purposes of this Contract, the yearly O&M Expenses for the Authority are computed according to the following formula:

$$(A/B \times C) + (A/E \times D) + F$$

Where: "A" is the amount of Water (in millions of gallons) taken by the Authority at the Point(s) of Delivery, as measured by the measuring equipment pursuant to Article VII, during the given year.

"B" is the total amount (in millions of gallons) of Water produced by the Plant Facilities during the given year.

"C" means all costs and expenses incurred by Houston (whether incurred by Houston through its own staff or independent contractors) for the maintenance and operation of the Plant Facilities, including (i) chemicals, labor, power, testing, permits, insurance, and other related costs, necessary for the efficient maintenance and operation of the Plant Facilities in full compliance with this Contract and all applicable regulatory requirements and the preparation costs of the Annual Audit; (ii) necessary repairs and replacements to the Plant Facilities; and (iii) improvements and betterments to maintain the Plant Facilities in proper operation and to comply with this Contract and all applicable regulatory requirements. The above costs and expenses include a proportionate share of administrative costs for management and support, resource management, planning and operations, the Office of the Director of Public Works as well as other indirect costs in the allocation percentage included in Houston's most recent finalized independent rate study. (The portion of such study showing such allocation percentage is attached hereto as Exhibit "G".) At the time of execution of this Contract, this allocation is 27%. Except as provided herein, no cost of Houston's government not directly related to the maintenance and operation of the Plant Facilities shall be included in the factor "C".

"D" means all costs and expenses incurred by Houston (whether incurred by Houston through its own staff or by independent contractors) for the maintenance and operation of the Untreated Water Facilities, including, (i) chemicals, labor, power, testing, permits, insurance, and other related costs, necessary for the efficient maintenance and operation of the Untreated Water Facilities in full compliance with this Contract and all applicable regulatory requirements and the

preparation of costs of the Annual Audit; (ii) necessary repairs and replacements to the Untreated Water Facilities; and (iii) improvements and betterments to maintain the Untreated Water Facilities in proper operation and to comply with this Contract and all applicable regulatory requirements. No cost of Houston's government not directly related to the maintenance and operation of the Untreated Water Facilities shall be included in the factor "D".

"E" is the total amount of untreated surface water (in millions of gallons) sold to Houston's water customers during the given year, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"F" is the Authority's pro rata share of the cost of (i) Major Rehabilitations and (ii) the repair and/or replacement of any portion of the Transmission Facilities. As used in this definition, the ratio for determining the share of the cost borne by the Authority is a fraction, the numerator of which is the Authority's then-current Treated Water Facilities Demand Allocation (in MGD) and the denominator of which is the total capacity (in MGD) of the entire facility subject to the Major Rehabilitation, repair, or replacement. The reasonable cost for such repairs, replacements and/or rehabilitations includes the same classes of costs identified in factor "C" above. Except as provided herein, no cost of Houston's government not directly related to the Major Rehabilitations or the repair and/or replacement of any portion of the Transmission Facilities shall be included in the factor "F". The capacities (in MGD) of the Plant Facilities and Transmission Facilities are shown in Exhibit "H".

#### Section 4.03 Annual O&M Budget.

Ninety (90) days prior to the commencement of delivery of Water under this Contract, and ninety (90) days prior to the beginning of each Houston fiscal year thereafter, Houston shall provide the Authority for its review and comment the proposed Annual O&M Budget showing (i) an estimate of the Authority's O&M Expenses for the coming fiscal year, (ii) the proposed monthly payments to be paid by the Authority for the fiscal year (1/12 of the Annual O&M Budget ), and (iii) the amount of the O&M Reserve. Houston will also include in the proposed and final Annual O&M Budget the estimated water production by the Plant Facilities and the Untreated Water Facilities as well as the anticipated amount of Water to be sold to the Authority.

The Authority will have sixty (60) days to review and comment on the proposed Annual O&M Budget, and Houston agrees to provide such records and cost documents in its possession as the Authority may reasonably require. At the end of the 60-day period Houston will consider the Authority's comments and issue the final Annual O&M Budget ("Annual O&M Budget") and invoice.

#### Section 4.04 Payments of Authority O&M Expenses.

Within thirty (30) days of its receipt of Houston's invoice and final Annual O&M Budget, the Authority shall pay Houston the O&M Reserve and the first monthly payment of O&M Expenses. Each month thereafter, the Authority shall make monthly payments to Houston in such equal amounts as required in the applicable Annual O&M Budget. Payments shall be due on the first of each month, and any payment more than thirty (30) days late shall bear interest at the rate applicable under Chapter 2251, Texas Government Code. Houston shall maintain the O&M Reserve in an interest-bearing account, which interest shall be credited to the account of the Authority. Any portion of a monthly O&M Expenses payment made by the Authority in excess of the actual monthly O&M Expenses incurred by Houston shall be credited to the account of the Authority in the O&M Reserve.

Houston may use funds from the O&M Reserve only for O&M Expenses. Houston will use the funds out of the O&M Reserve to pay O&M Expenses only if the monthly O&M Expenses payment made by the Authority is less than the actual monthly O&M Expenses incurred by Houston or if the payment of the monthly O&M Expenses is not timely made to Houston by the Authority. Houston may invoice the Authority for any shortfall in the O&M Reserve in order for the O&M Reserve to equal the amount established in the Annual O&M Budget, provided that any such invoice must include an accounting to justify the additional payment to the O&M Reserve. The Authority shall pay such invoices within sixty (60) days of its receipt of Houston's accounting and invoice for replenishment of the O&M Reserve.

#### Section 4.05 Major Rehabilitations.

Houston shall perform such Major Rehabilitations as necessary for the operation and maintenance of the Plant Facilities and Transmission Facilities. Except for emergencies involving health or safety, Houston shall submit plans and specifications for such Major Rehabilitations to the Authority for review and comment at least sixty (60) days prior to Houston advertising the project for bids. Costs for Major Rehabilitations shall be paid by the Authority in the ratio of its Treated Water Facilities Demand Allocation to the capacity of the facility requiring the Major Rehabilitation, as applicable. Provided, however, the Authority shall never be required to pay for any portion of replacements, additions or improvements to facilities that provide capacity or Water solely to other customers.

#### Section 4.06 Annual Audit.

Within one hundred eighty (180) days of the close of each Houston fiscal year, Houston shall prepare an accounting of the O&M Expenses ("Annual Audit"). Houston shall engage an

independent certified public accounting firm to audit the accounting of costs of the O&M Expenses. As soon as the firm has completed the audit, Houston shall submit the audited accounting to the Authority. Houston and the Authority agree to "true-up" the previous payments made for O&M Expenses during the fiscal year such that if the Authority has underpaid it will make timely payment of all O&M Expenses owed in the next monthly billing following the audit, and Houston agrees to give credit to the Authority if it has overpaid O&M Expenses for the fiscal year, such credit, including any interest accrued in the O&M Reserve on such overpayments, shall be given on the next monthly billing(s) following the audit.

Houston agrees to provide both the independent auditor and the Authority all expenses, meter readings and cost data required for the audit. The audit must include an itemization for the Authority of all costs and meter recordings used to compute the O&M Expenses.

## ARTICLE V

### Term Provision

This Contract shall be in force and effect from and after the execution hereof by the Houston Controller and shall expire at noon on the fortieth (40th) anniversary of the date of countersignature by Houston's Controller. To the extent authorized by law, as amended, Houston agrees, if requested in writing by the Authority, to execute a written extension of the term of this Contract for an additional twenty (20) years beyond such forty (40) year term. The Houston Mayor shall be authorized to execute such written extension. At such time as this Contract is no longer in force and effect, if requested in writing by the Authority, Houston agrees to continue to provide water services to the Authority upon the payment of reasonable rates and charges therefor which take into account the capital payments paid by the Authority to Houston pursuant to this Contract and subject to the availability of Water. The immediately preceding sentence shall survive the expiration or termination of this Contract.

## ARTICLE VI

### Performance by the Parties

#### Section 6.01 Construction and Maintenance of Certain Facilities between the Point(s) of Delivery and Point(s) of Measurement.

With respect to any Water handling facilities located between the Point(s) of Delivery and the Point(s) of Measurement shown in Exhibit "C", the Authority and Houston specifically agree:

- (1) That all such facilities, other than the measurement equipment itself, shall be and remain the property of the Authority.

- (2) That the Authority shall take all responsible steps to maintain such facilities and to prevent leaks or discharges from such facilities and shall not suffer, permit, cause or allow any water to be taken or used from such facilities, except through the measuring equipment.
- (3) That the Authority shall repair any such leak or discharge at once upon receiving notice thereof and pay Houston the cost of any Water lost by reason of such a leak or discharge. The Authority shall make payment to Houston for such Water only by Houston including the amount of such Water in the factor "A" defined in Section 4.02. Calculation of the amount of Water lost by reason of such leak shall be estimated on a basis mutually agreed to between the Authority and the Utility Official.
- (4) That the Authority shall correct or repair any damage caused by any such leak or discharge.

Section 6.02 Tap and Meter.

The Authority shall construct, at its sole cost, water connection taps at the Point(s) of Delivery and set the water meter(s) at the Point(s) of Measurement under the mutual approval and inspection of the Utility Official and the Authority. The Authority also agrees to provide a telephone and electronic connection accessible at the Point(s) of Measurement and allow Houston to connect remote meter reading equipment to such telephone line.

Before any connection, the Authority System shall be chlorinated in accordance with requirements approved by the Utility Official.

Section 6.03 Delivery Limitations.

The Authority shall not be guaranteed any specific quantity or pressure of Water whenever Houston's water supply is limited or when Houston's equipment may become inoperative due to unforeseen breakdown or scheduled maintenance and repairs. Should delivery of Water be limited as a result of scheduled maintenance or repairs, Houston shall provide written notification of such scheduled maintenance or repairs at least 30 days prior to same. Houston is in no case to be held to any liability for failure to furnish any specific amount or pressure of Water; provided, however, that Houston shall use reasonable efforts to deliver the Water required by this Contract and to maintain sufficient pressure at the Point(s) of Delivery in order for the Authority to receive the Water it is entitled to under this Contract. Notwithstanding the other provisions of this Section 6.03, Houston may reduce the supply of Water only in

accordance with the laws of the State of Texas, particularly Section 11.039(a) of the Texas Water Code, as may be amended from time to time.

Section 6.04 Backflow Requirements.

On or before the commencement of delivery of Water to the Authority pursuant to this Contract, the Authority shall have installed an air gap or backflow prevention device, in accordance with the specifications approved by the Utility Official, at either: (i) each Point of Delivery; or (ii) at each location where the Authority System connects to the water system of an Authority customer. The Authority and the Utility Official shall agree in writing as to the location of all air gaps or backflow prevention devices installed by the Authority.

Section 6.05 Water Conservation.

The Authority shall approve and implement a water conservation program as required by the Texas Commission on Environmental Quality pursuant to 30 T.A.C. § 288, as may be amended from time to time.

Section 6.06 Inspections.

The Authority agrees that Houston may conduct inspections from time to time to determine that no conditions exist in the Authority System and connections to its customers' premises which would or might adversely affect the Houston System. Houston shall notify the Authority should such condition exist. Such notification shall be provided in writing and shall be made within forty-eight (48) hours of discovering any such condition.

Section 6.07 Inspection of Records.

With reasonable notice, either party shall allow the other the opportunity to examine records from the other party for the purpose of evaluating the costs for which payments are requested or required hereunder.

Section 6.08 Payment.

In the event the Authority fails to timely tender payment of any amount within the periods established herein, and such failure continues for sixty (60) days after the notice to the Authority of such default, Houston may suspend delivery of Water, but the exercise of such right shall be in addition to any other remedy available to Houston.

Section 6.09 Title to and Responsibility for Water.

Title to, possession, and control of Water shall remain with Houston until it passes through the Point(s) of Delivery, where title to, possession, and control of the Water shall pass from Houston to the Authority.

## ARTICLE VII

### Measuring Equipment

#### Section 7.01 In General

At the Authority's own cost and expense, the Authority shall provide for installation at the Point(s) of Measurement, measuring equipment, properly equipped with meters and devices of standard type for measuring accurately the quantity of Water delivered under this Contract, with ability to measure the quantity of Water delivered within the accuracy tolerance of two percent (2%). Such measuring equipment shall be approved by the Authority and the Utility Official, but shall become the property of Houston after installation.

#### Section 7.02 Access

During any reasonable hours, Houston and the Authority shall have access to all measuring equipment. The Authority shall have access to all records pertinent to determining the measurement and quantity of Water actually delivered, but the reading of the meters for purposes of the calculation of any payment required from the Authority under this Contract shall be done by Houston.

#### Section 7.03 Testing of Meter

Houston shall maintain the measuring equipment within the accuracy tolerance specified in Section 7.04 by periodic tests. Houston shall conduct such tests at least once every twelve (12) months and shall notify the Authority at least forty-eight (48) hours in advance of the time and location at which such tests are to be made. If the Authority requests an additional test within twelve (12) months, Houston shall charge the Authority an amount equal to Houston's cost to perform such test, unless the test reveals that the equipment registers greater than one hundred and two percent (102%) for a given flow rate. In addition, the Authority shall have the right to independently check, at its own cost, said measuring equipment at any time upon forty-eight (48) hours written notification to the Utility Official, providing the opportunity for the Utility Official to witness such tests.

#### Section 7.04 Results of Tests

Should the test of the measuring equipment in question show that the equipment registers either more than one hundred two percent (102%) or less than ninety-five percent (95%) of the Water delivered for a given flow rate, the total quantity of Water delivered to the Authority will be deemed to be the average daily consumption as measured by the measuring equipment when in working order, and the meter shall be calibrated to the manufacturer's specifications (in the case of Venturi meters) or the AWWA specifications (for all other types of meters) for the given

rate of flow, or replaced by Houston with accurate measuring equipment that is tested before it is placed in service. This adjustment shall be for a period extending back to the time when the inaccuracy began, if such time is ascertainable; and if such time is not ascertainable, for a period extending back to the last test of the measuring equipment or one hundred twenty (120) days, whichever is shorter.

As used in this paragraph, the expression "given rate of flow" means one of the following selected by the Utility Official for each calibration or test:

- (1) the total quantity of Water delivered during the preceding period (usually a calendar month) as reflected by the totalizer, converted to gallons per minute;
- (2) high, low, and intermediate rates of flow in the flow range, as reflected by the flow recording devices; or
- (3) AWWA-specified test flow rates for that size and type of meter.

Section 7.05 Disputes as to Testing.

In the event of a dispute between Houston and the Authority as to the accuracy of the testing equipment used by Houston to conduct the accuracy test, an independent check may be mutually agreed upon between the Authority and the Utility Official to be conducted by an independent measuring equipment company suitable to both the Authority and the Utility Official. The cost of such test will be at the Authority's sole expense.

The Utility Official shall accept the test results of the independent measuring equipment company, provided that the calibration procedure and test equipment are mutually agreeable to the Authority and to the Utility Official.

Section 7.06 Check Meters.

The Authority may install, at its own cost and expense, such check meters in the Authority's pipeline; but Houston shall have the right of ingress and egress to such check meters during all reasonable hours; provided, however, that billing computations shall be on the basis of the results of the measuring equipment set forth above.

## ARTICLE VIII

### Miscellaneous Provisions

Section 8.01 Quality of Water.

Houston shall provide Water meeting all applicable Texas and Federal regulations regarding water quality, including the Safe Drinking Water Act, as same may be amended from time to time.

EXCEPT AS PROVIDED IN SECTIONS 6.03 AND 8.01, HOUSTON MAKES NO WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE QUALITY OR DELIVERY PRESSURE OF THE WATER, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

THE AUTHORITY HEREBY RELEASES AND DISCHARGES HOUSTON FROM ANY AND ALL FINES, DEMANDS, JUDGMENTS, LIABILITIES OR CLAIMS ARISING BY REASON OF OR IN CONNECTION WITH THE DELIVERY OF WATER WHICH MEETS THE REQUIREMENTS OF SECTIONS 6.03 AND 8.01.

Section 8.02 Ingress and Egress.

During the term of this Contract, and upon the giving of prior notification to the Authority, Houston shall have the right of ingress and egress in, upon, under and over any and all land, easements and rights-of-way of the Authority on which Houston, with the Authority's consent, constructs facilities to deliver Water to the Authority.

Section 8.03 Assignments.

This Contract shall bind and benefit the respective parties and their legal successors, but shall not otherwise be assignable, in whole or in part, by either party without first obtaining written consent of the other. "Assignment" as used herein means assignment in law or otherwise.

Section 8.04 Subject to Law.

This Contract shall be subject to all present and future valid laws, orders, rules and regulations of the United States of America, the State of Texas, any regulatory body having jurisdiction and the Charter and Ordinances (to the extent the Ordinances are not inconsistent with this Contract) of the City of Houston, Texas. In order to protect the Houston System it is specifically agreed that the Authority System shall be constructed and operated to comply with the rules promulgated by the Texas Commission on Environmental Quality, or any successor agency, the Houston Plumbing Code, and the policy of requirements of the Utility Official regarding backflow prevention and cross connections. Should a condition in violation of these requirements be discovered, the Authority shall promptly cure same.

Section 8.05 No Additional Waiver Implied.

The failure of either party hereto to insist, in any one or more instances, upon performance of any of the terms, covenants or conditions of this Contract, shall not be construed as a waiver or relinquishment of the future performance of any such term, covenant or condition

by the other party hereto, but the obligation of such other party with respect to such future performance shall continue in full force and effect.

Section 8.06 Merger.

This instrument contains all the agreements made between the parties.

Section 8.07 Notices.

Until the Authority is otherwise notified in writing by Houston, the address of Houston is and shall remain as follows:

City of Houston  
Utility Official of Public Works and Engineering Department  
P.O. Box 1560  
Houston, Texas 77251-1560

Until Houston is otherwise notified in writing by the Authority, the address of the Authority is and shall remain as follows:

North Harris County Regional Water Authority  
c/o General Manager  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

All written notices, statements and payments required or permitted to be given under this Contract from one party to the other shall be deemed given by the deposit in a United States Postal Service mailbox or receptacle of certified or registered mail, with proper postage affixed thereto, addressed to the respective other party at the address set forth above or at such other address as the parties respectively shall designate by written notice.

Section 8.08 Authorship.

The parties agree that this Contract shall not be construed in favor of or against either party on the basis that the party did or did not author this Contract.

Section 8.09 Parties in Interest.

This Contract shall be for the sole and exclusive benefit of the parties hereto and shall not be construed to confer any rights upon any third party. Houston shall never be subject to any liability in damages to any customer of the Authority for any failure to perform under this Contract.

Section 8.10 Sale of Water Outside Boundaries.

In entering into this Contract the parties contemplate that the Authority will sell the water to inhabitants and commercial customers within the Authority. Therefore, the Authority may sell Water purchased hereunder outside its boundaries only if such sale is approved in writing by the

Utility Official. The Utility Official shall grant any such request if the area is outside Houston's city limits and is not then provided Water service by Houston.

Section 8.11 Captions.

The captions appearing at the first of each numbered section in this Contract are inserted and included solely for convenience and shall never be considered or given any effect in construing this Contract, or any provisions hereof, or in connection with the duties, obligations, or liabilities of the respective parties hereto or in ascertaining intent, if any questions of intent should arise.

Section 8.12 Enforcement.

The City Attorney or his or her designee shall have the right to enforce all legal rights and obligations under this Contract without further authorization.

Section 8.13 Approvals.

Unless otherwise provided for herein, any consent or approval of the parties shall be made by the governing body of each party.

Section 8.14 Force Majeure.

In the event either party is rendered unable, wholly or in part, by Force Majeure, to carry out any of its obligations under this Contract, it is agreed that upon such party's giving notice and full particulars of such Force Majeure in writing to the other party as soon as possible after the occurrence of the Force Majeure, the obligations of the party giving such notice, to the extent it is affected by Force Majeure and to the extent that due diligence is being used to resume performance, shall be suspended for the duration of the Force Majeure. Such cause shall, as far as possible, be remedied with all reasonable dispatch.

Section 8.15 Force Majeure Defined.

The term "Force Majeure," as used herein, shall include, but not be limited to, acts of God, strikes, lockouts or other industrial disturbances, acts of the public enemy, war, blockades, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, droughts, tornadoes, hurricanes, arrests and restraints of government and people, explosions, breakage or damage to machinery, pipelines or canals, and any other inability of either party, whether similar to those enumerated or otherwise, and not within the control of the party claiming such inability, which by the exercise of due diligence and care such party could not have avoided.

Section 8.16 Default and Remedies.

Default shall occur only in the event either party fails to adhere to its respective obligations hereunder. In such event, the non-defaulting party shall give the defaulting party: (i) written notice describing such default and the necessary cure therefor; and (ii) the opportunity to cure such default within no less than thirty (30) days of receipt of such notice. If the default is cured within the specified time period to the satisfaction of the non-defaulting party, then no further action shall be taken by the non-defaulting party. If the default is not cured within the specified time period to the satisfaction of the non-defaulting party, the non-defaulting party may pursue any available remedies existing at law or in equity. This Section 8.16 shall not be considered as specifying the exclusive remedy or procedure for remedy for any default, and all remedies existing at law and in equity are to be available to either party; provided, however, that the parties may submit their dispute in good faith to non-binding mediation, the costs of which will be shared equally by the parties, prior to either party filing suit for any default under this Contract.

Section 8.17 Advisory Committee.

Houston shall establish an Advisory Committee comprised of: (i) one (1) representative of Houston, selected by the Utility Official; (ii) one (1) representative of the Authority, selected by the Authority; and (iii) one (1) representative of the West Harris County Regional Water Authority. Such representatives may be members of the governing bodies of such entities or such other persons as such entities may designate. The function of the Advisory Committee shall be to inform and consult with Houston concerning: (i) Annual O&M Budget matters, (ii) surface water system operational issues, (iii) upcoming or ongoing surface water projects, (iv) long-term surface water planning issues, and (v) other surface water related issues. The Advisory Committee shall make reasonable efforts to meet at least once per calendar year.

Section 8.18 Responsibility for Groundwater Reduction Plan

The Authority shall be responsible for adopting, obtaining HGCSD approval of and administering its Groundwater Reduction Plan (the "GRP"). Houston shall be responsible for adopting, obtaining HGCSD approval of and administering its GRP.

Section 8.19 Payment Dates.

If the Authority and the Utility Official mutually agree in writing, the due dates of any payments due under this Contract within any particular calendar year may be modified such that such payments become due on the same date within each calendar year.

Section 8.20 Severability.

The provisions of this Contract are severable, and if any provision or part of this Contract or the application thereof to any person or circumstance shall ever be held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Contract and the application of such provision or part of this Contract to other persons or circumstances shall not be affected thereby.

[EXECUTION PAGE FOLLOWS]

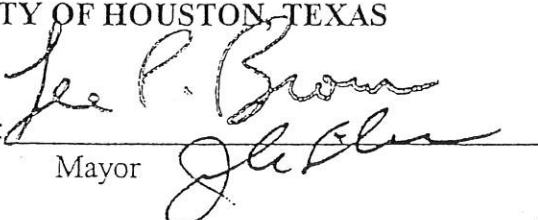
IN WITNESS WHEREOF, the parties hereto have executed this Contract in multiple copies, each of which shall be deemed to be an original, effective on the date of countersignature indicated below.

"Houston"

CITY OF HOUSTON, TEXAS

By:

Mayor

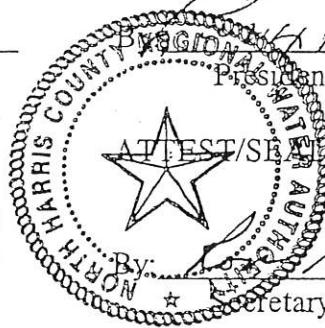


Executed for and on behalf of City  
pursuant to authority granted by  
the City Council Ordinance No. 2002-113  
passed Dec 16,  
2002, a copy of which is attached  
hereto for reference.

"Authority"

NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY

By: John A. Sibley  
President, Board of Directors



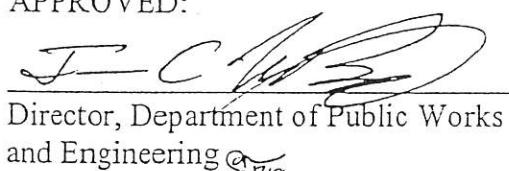
By: John A. Sibley  
Secretary, Board of Directors

DATE APPROVED: 12-02-02

ATTEST/SEAL

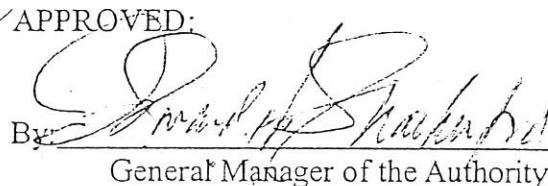
Mark Russell  
City Secretary

APPROVED:



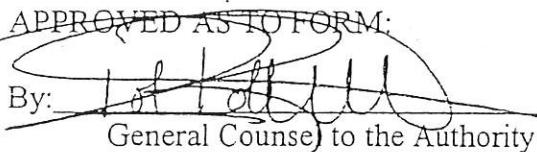
T.C. Potts  
Director, Department of Public Works  
and Engineering @ HCO

APPROVED:



David H. Shabot  
General Manager of the Authority

APPROVED AS TO FORM:



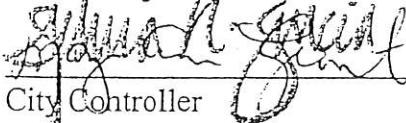
Lot Holloman  
General Counsel to the Authority

APPROVED AS TO FORM:



Sr. Assistant City Attorney  
L.D. File No. 80-99041-01

COUNTERSIGNED BY:



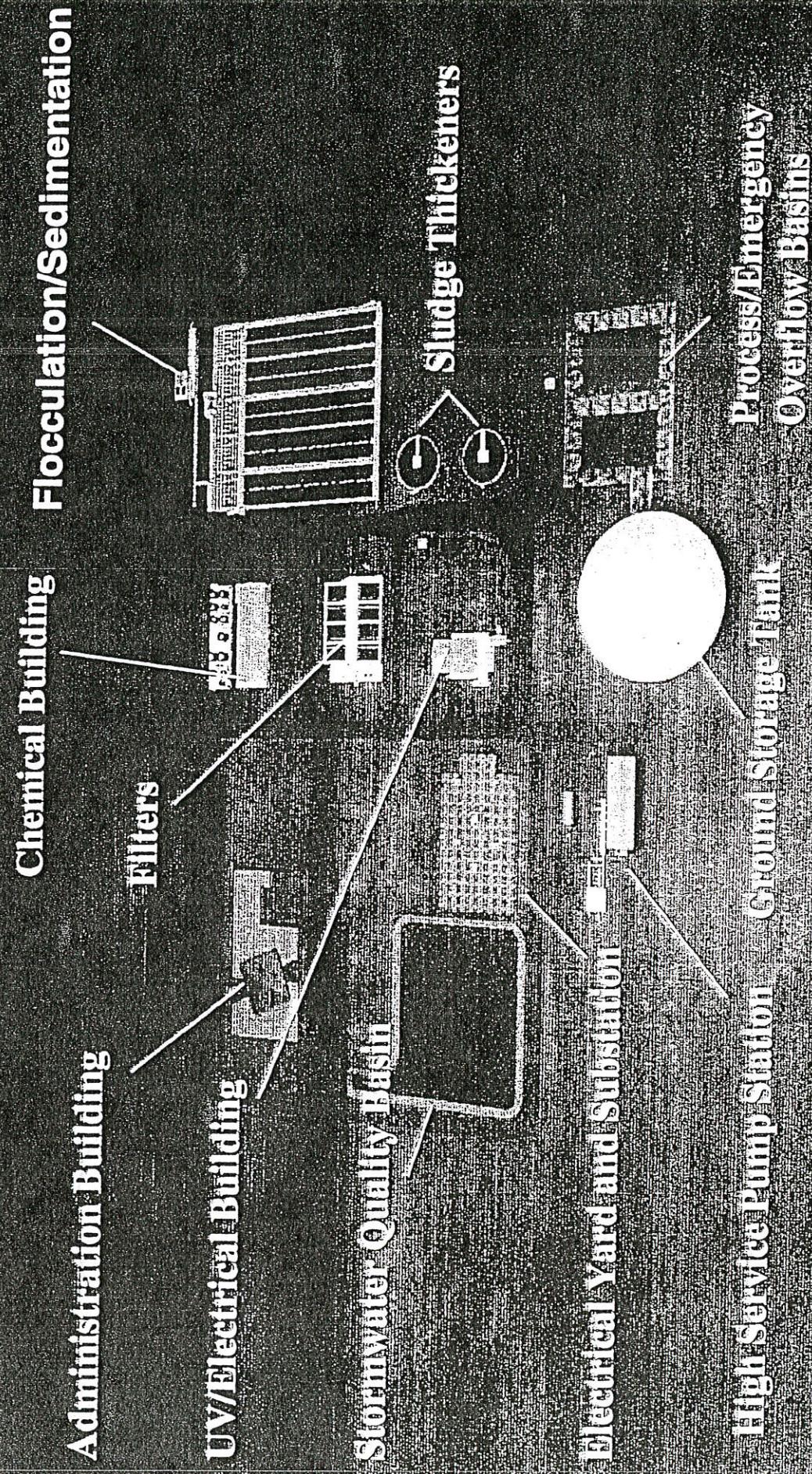
Gerald E. Smith  
City Controller

DATE COUNTERSIGNED: 12/16/02

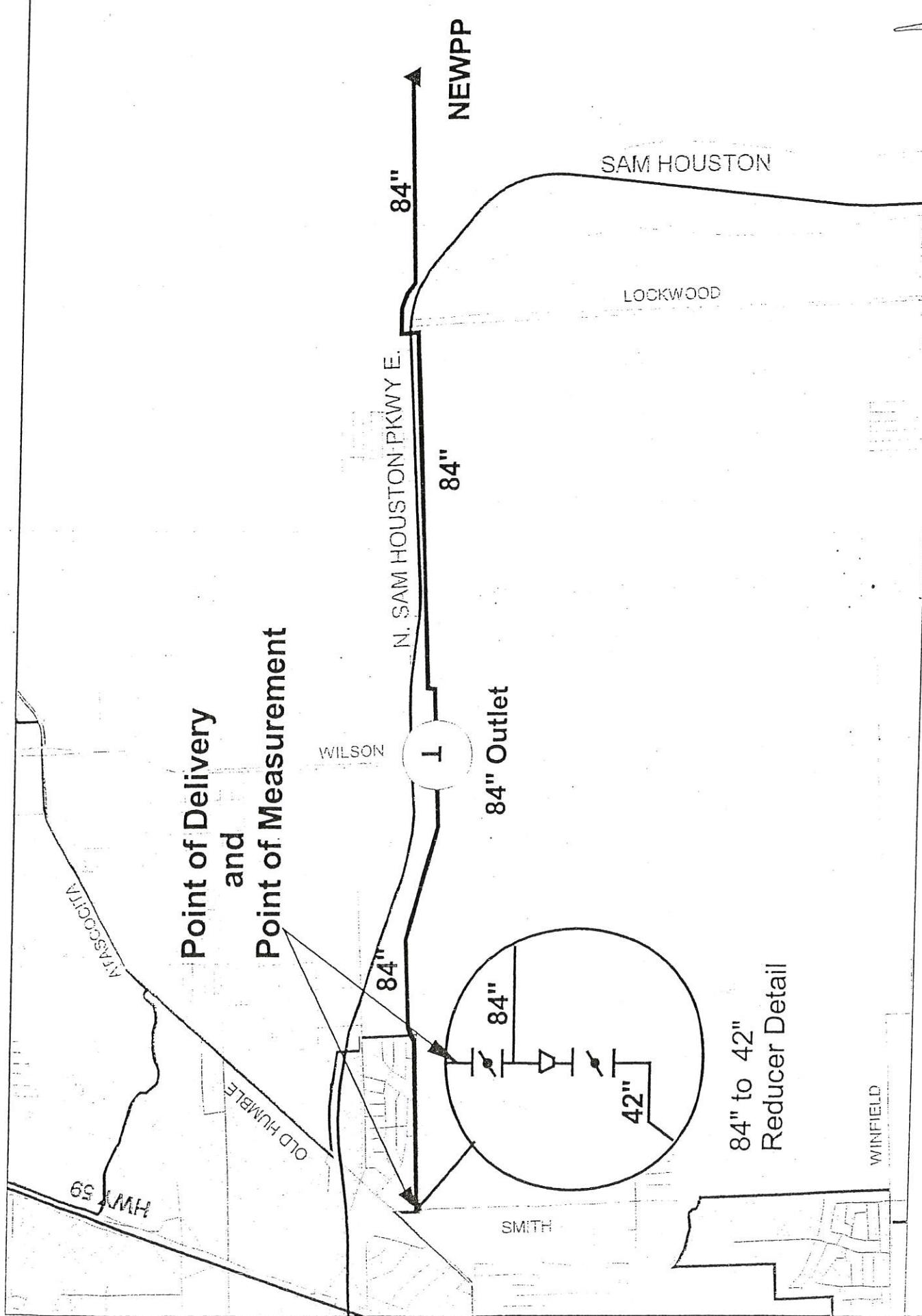
## **EXHIBIT A: Houston's Existing Untreated Water Facilities**

- 1 Coastal Water Authority ( General)
- 2 Trinity/Lynchburg Pump Stations
- 3 Conveyance System
- 4 Trinity River Authority ( General)
- 5 Lake Livingston Improvements
- 6 Lake Houston Dam/Reservoir
- 7 Wallisville Lake Project
- 8 Dayton Canal
- 9 Allens Creek Reservoir Land Purchase
- 10 Water Rights

**EXHIBIT B : PLANT FACILITIES –**  
**NORTHEAST WATER PURIFICATION PLANT**



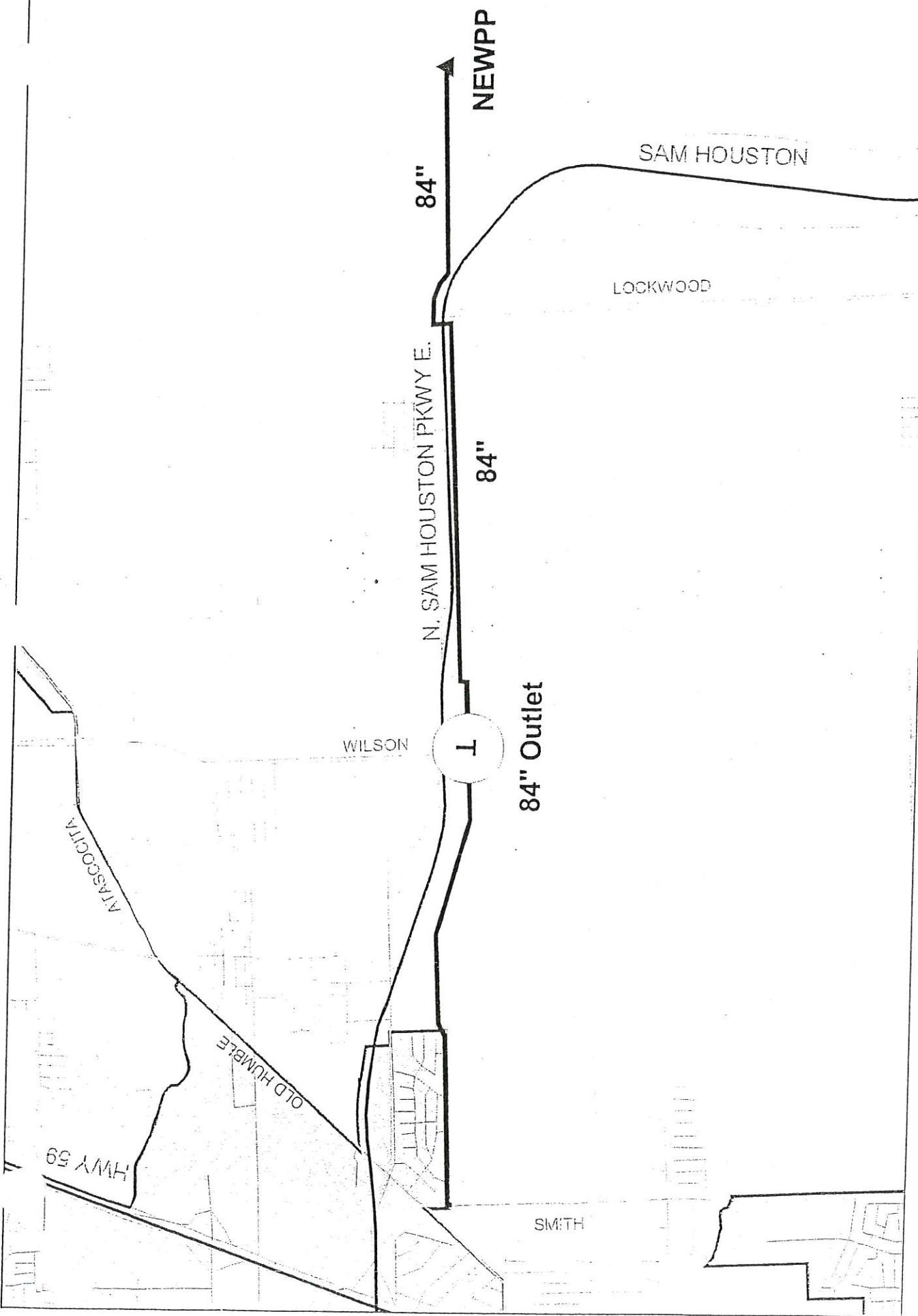
**Point of Delivery  
and  
Point of Measurement**



**Exhibit C**  
Point(s) of Delivery  
and Point(s) of Measurement  
DEPARTMENT OF PUBLIC WORKS AND ENGINEER  
PUBLIC UTILITIES DIVISION

## Exhibit D Transmission Facilities

DEPARTMENT OF PUBLIC WORKS AND ENGINEERING  
PUBLIC UTILITIES DIVISION



**EXHIBIT E: Initial Untreated Water Facilities Demand Allocation to be purchased by the Authority, The Outstanding Debt, and the total amount (in MGD) of Factor "B"**

NHCRWA's Prorata Share of Houston's Untreated Water Facilities Current Outstanding Debt For Initial Demand Allocation

$$(A/B)C = \$23,071,783$$

Where

Factor A = Initial Demand Allocation for the Authority

Year	Demand Allocation (MGD)
2010	31

Factor B = Surface Water - Average Daily Production (MGD):

Untreated Water Sold to Customers in 2001 (MGD):	235.51
Water Production at SEWTP in 2001 (MGD):	68.55
Water Production at EWTP in 2001 (MGD):	215.92
Surface Water - Average Daily Production (MGD):	519.98

Factor C = Houston's Untreated Water Facilities Outstanding Debt

Facility Component	Outstanding Debt
1 Coastal Water Authority ( General )	\$254,187,160
2 Trinity River Authority ( General )	\$13,000,000
Total Contract Debt:	\$267,187,160
3 Coastal Water Authority ( Proposed TRINITY/Lynchburg Pump Station Upgrade )General)	\$55,000,000
4 TRA - Current Lake Livingston Improvements	\$15,481,000
5 Allens Creek Land Purchase:	\$16,754,709
6 Lake Houston Dam/Reservoir Improvements:	\$17,016,400
7 Wallisville Lake Project :	\$10,406,400
8 Dayton Canal	\$5,150,000
<b>Total Outstanding Debt (Factor C):</b>	<b>\$386,995,669</b>

Note: Item 1 and 2 represents "Outstanding Debt" as of June 30, 2001. Item 3 through 8 represents estimated cost. Factor "C" will be revised per "actual" costs of all Untreated Water Facilities. Authority and Houston will "true-up" final untreated water cost payment per actual incurred costs of facilities shown in Exhibit A.

**Exhibit F Treated Water Facilities Applicable to North  
Harris County Regional Water Authority**

**Page 1 of 2      Northeast Water Purification Plant**

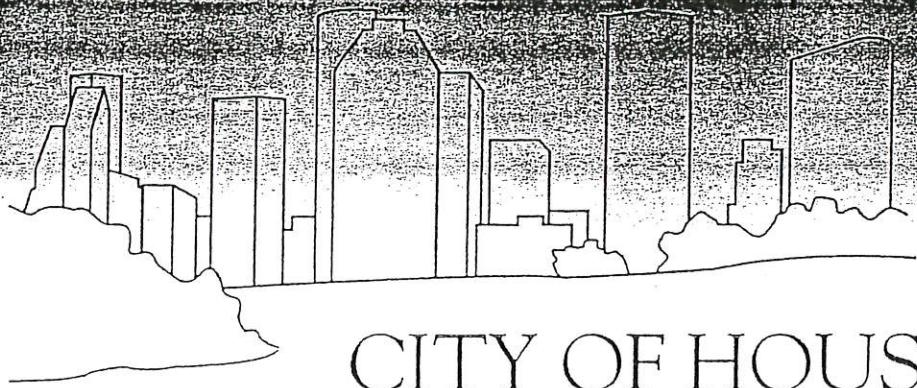
Description	cost
Phase I Construction Cost	
Total	\$92,206,000
84-inch	\$14,000,000
42-inch	\$6,338,000
Plant Construction Cost	\$71,868,000
Phase I Non-constructionCost	\$16,581,586
Items subject to revision	
Owner's Representative	\$4,427,841
Diversity Consultant	\$495,000
General Engineering Consultant	\$1,497,740
Project Contingency/Change Orders	\$5,000,000
Total:	\$11,420,581
Adjusted amount at 6.87%	(\$785,021)
Adjusted Plant Non-construction Cost	\$15,796,565
Phase I total	\$87,664,565
Phase II total	\$32,526,000
Total Plant Cost	\$120,190,565
Total Plant Cost	\$120,190,565
Capacity (Gallons / day)	80,000,000
Cost per Gallon / Day	\$1.50
Authority Pro-Rata Capacity (Gal/day)	31,000,000
Authority Pro-Rata Cost	\$46,573,844

**Exhibit F Treated Water Facilities Applicable to North Harris County Regional Water Authority**

**Page 2 of 2 84-inch Transmission Line**

Total Cost	Component	Length (ft)	Size (in)	Demand Allocation (MGD)*	Full Flow @ 5 ft/sec (MGD)	Authority Pro-Rata Cost
\$14,000,000	Transmission Line	31,000	84	31.0	124.0	\$3,500,000
\$4,161,532	Transmission Easements					\$1,040,000
\$1,514,407	Condemnation Attorney					\$379,000
Authority Pro-Rata Cost						\$4,919,000

\* From Exhibit E



**CITY OF HOUSTON**  
Water and Sewer Rate Study

— April 1999 —

**BLACK & VEATCH**

## Exhibit G Page 2 of 3

Table W-9

### Water Utility Allocation of Maintenance & Operation Expenses 2000 Test Year

Thousands of Dollars

Line No.	Description	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		M&O Expenses	Common to Surface Water	Meters	Utility Billing	Base	Max Day	Extra Capacity	Base	Max Day	Max Hour	Direct SE Plant Participants
1	Source of Supply - Surface Water		42,080		37,766							4,315
2	Resource Management		42,080		37,766							4,315
3	Meter Maintenance	4,523										
4	Other Customer Service	12,229										
5	Customer Service	16,752										
6	SE Plant Participants	4,315										
7	Ground Water Pumping	982										
8	Treatment	20,951										
9	Water Production	10,803										
10		37,050										
11	Distribution Water Storage	2,673										
12	Water Pipe											
13	Transmission	8,280										
14	Distribution	8,046										
15	Water Services	207										
16	Water Meters	122										
17	Utilities Maintenance	19,328										
18	Management & Support	6,912										
19	Planning & Operations	4,849										
20	Office of the Director	715										
21	Inventory Support	3,655										
22	Resource Management	16,365										
23	Non-capitalized Equipment	1,356										
24	General & Administrative	33,852	12,846	1,481	3,733	7,983	2,952	2,401	1,196	442	818	44P
25	Total M&O Expenses	149,062	50,612	6,333	15,962	34,135	12,622	10,268	5,114	1,890	3,498	8,629
	Total M&O Cost of Service	159,992	54,551	6,826	17,204	36,792	13,604	11,067	5,512	2,037	3,770	8,629

# **Exhibit G Page 3 of 3**

## **Calculation of General and Administrative Cost per 1999 Black & Veatch Rate Study**

### **Water Utility**

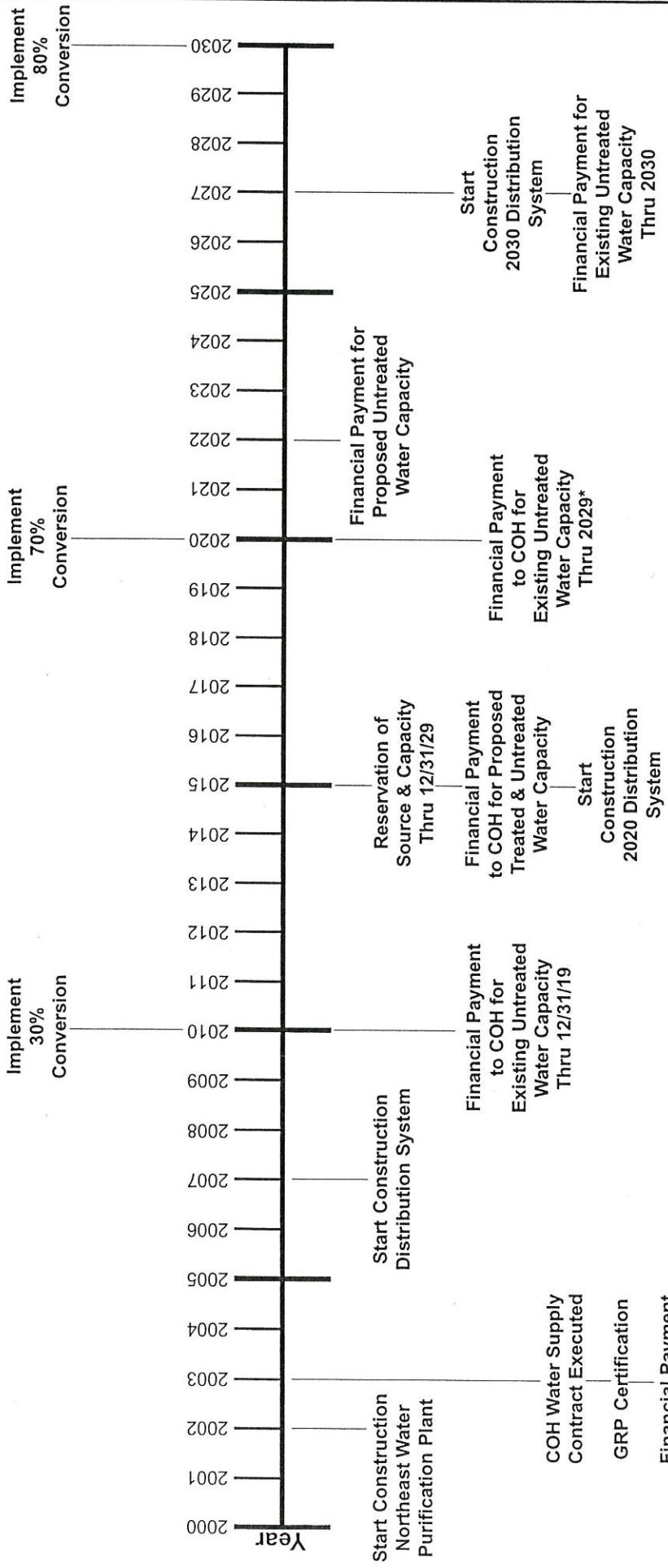
(1)	General and Administrative	\$ 33,852
(2)	Total M & O Cost of Service	\$ 159,992
(3)	Total M & O excluding General & Administrative Cost	\$ 126,140
(4)	% of General & Administrative to Total M & O excluding General & Administrative Cost	26.84%

**Exhibit H****Plant and Transmission Facility Capacities**

Facilities		Capacity (MGD)
Plant	NEWPP *	80
Transmission	84"	124 **

\* NEWPP - North East Water Purification Plant, \*\* Full Flow at 5 ft/sec

# North Harris County Regional Water Authority Project Timeline for Compliance With Harris-Galveston Coastal Subsidence District Regulatory Plan



\* Assume COH is source for 2020 capacity.





Jimmie Schindewolf, P.E.  
*General Manager*

**BOARD OF DIRECTORS**  
Kelly P. Fessler, *President*  
James D. Pulliam, *Vice President*  
Ron Graham, *Secretary*  
Lenox A. Sigler, *Treasurer*  
Alan J. Rendl, *Asst. Secretary*

## MEMORANDUM

**TO:** Robin S. Bobbitt  
Tom Rolen, P.E.  
Cyndi Plunkett

**FROM:** Lisa Randecker

**DATE:** February 26, 2009

**SUBJECT:** FIRST SUPPLEMENT TO WATER SUPPLY CONTRACT BETWEEN  
THE CITY OF HOUSTON, TEXAS, AND THE NORTH HARRIS  
COUNTY REGIONAL WATER AUTHORITY

---

Please find enclosed for your files one (1) fully executed duplicate original of the above referenced Agreement.

/lr

Enc.

Cc: Paul R. Nelson (w/copy of attachment)

A73111

09-0052

**FIRST SUPPLEMENT TO WATER SUPPLY CONTRACT BETWEEN THE CITY OF  
HOUSTON, TEXAS, AND THE NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY**

This First Supplement to Water Supply Contract ("First Supplement") is made by and between the **CITY OF HOUSTON, TEXAS** ("Houston") and the **NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY** (the "Authority").

**WITNESSETH:**

**Recitals**

WHEREAS, Houston is a municipal corporation and home-rule city, principally located in Harris County, Texas; and

WHEREAS, the Authority is a Texas conservation and reclamation district organized and operating under provisions of House Bill No. 2965 of the Seventy-Sixth Texas Legislature, Regular Session, as amended, (the "Act") and the Texas Water Code, as amended; and

WHEREAS, Houston and the Authority entered into a Water Supply Contract effective as of December 16, 2002, (the "Contract").

WHEREAS, Houston has entered into Water Supply Contracts with West Harris County Regional Water Authority, North Fort Bend Water Authority, and Central Harris County Regional Water Authority ("Other Authorities"); and

WHEREAS, the Authority and each of the Other Authorities seek to increase their Untreated Water Facilities Demand Allocation and Houston does not currently have sufficient capacity available in the Existing Untreated Water Facilities to serve such increases; and

WHEREAS, Houston, the Authority and the Other Authorities seek the construction and completion of the project known as "Luce Bayou" that will convey approximately 400 million gallons per day ("MGD") of untreated surface water from the Trinity River to Lake Houston (the "Project") in order to increase untreated surface water supplies available to Houston, the Authority and the Other Authorities; and

WHEREAS, Houston and the Authority seek to supplement the Contract to clarify cost-sharing and capacity with respect to the Project under Section 3.02(c) of the Contract and also to address other matters.

NOW, THEREFORE, for and in consideration of the premises and the mutual covenants and agreements herein contained, the parties hereto do mutually agree as follows:

Section 1. Definitions. In addition to the terms defined elsewhere in this First Supplement, the following terms used in this First Supplement, unless the context requires otherwise, shall have meanings as follows:

"Actual O&M Rate" means the per 1,000 gallon rate calculated by dividing: (i) the actual O&M Expenses for the prior Fiscal Year, by (ii) the actual amount of Water (in millions of gallons) taken by the Authority during the prior Fiscal Year, divided by 1,000.

"Additional Right-of-Way Costs" is defined in Section 2A.

"Anticipated Demand" means the amount of Water (in millions of gallons) that the Authority reasonably anticipates that it will need from Houston during the upcoming Fiscal Year.

"Authority's Additional Payment for Right-of-Way Costs" means the product of multiplying the Authority's Right-of-Way Percentage times the Additional Right-of-Way Costs.

"Authority's Lump Sum Payment for Right-of-Way Costs" means the product of multiplying the Authority's Right-of-Way Percentage times \$15,000,000.

"Authority's New UWFDA" means the Authority's new Untreated Water Facilities Demand Allocation in the amount of 159.0 MGD, which will be effective once the Utility Official has certified that the Project is complete pursuant to Section 3.

"Authority's Pro-Rata Share of CWA Interest Amount" means \$57,734, which is the result of multiplying \$360,836 by the Authority's Right-of-Way Percentage.

"Authority's Pro-Rata Share of Payment for Right-of-Way Costs" means the product of multiplying the Authority's Right-of-Way Percentage times the total Project Right-of-Way Costs.

"Authority's Right-of-Way Percentage" means 16.00%.

"CWA" means the Coastal Water Authority.

"CWA Agreement" is defined in Section 1A.

"CWA Interest Amount" means the \$360,836 of interest due to CWA on costs incurred or to be incurred by CWA for the Project prior to CWA obtaining WIF funds.

"Effective Date" means the date this First Supplement is executed by the Houston Controller.

"Estimated O&M Rate" means the per 1,000 gallon rate calculated by dividing: (i) the O&M Expenses reasonably estimated by the City for the coming Fiscal Year, by (ii) the Anticipated Demand, divided by 1,000.

"Fiscal Year" means Houston fiscal year.

"Phase 1" is defined in Section 3.

"Phase 2" is defined in Section 3.

"Phase 1 Annual Letter" is defined in Section 6.

"Phase 2 Annual Letter" is defined in Section 7.

"Project Manager" is defined in Section 1A.

"Public Works Director" means the Director of the Department of Public Works and Engineering of Houston (or the successor equivalent position), or such person as he or she shall designate.

"Phase 1 Remittance Date" is defined in Section 6.

"Phase 2 Remittance Date" is defined in Section 7.

"Project Right-of-Way Costs" means the reasonable and necessary costs and expenses incurred by CWA or Houston for acquisition of Project Right-of-Way.

"Project Right-of-Way" means right-of-way and site acquisition for the Project and interests in land necessary for environmental mitigation (and environmental mitigation credits) for the Project, all as approved by the Public Works Director.

"TexPool Rate" means the monthly "Average Monthly Yield" rate paid by TexPool (or if such rate is discontinued, then a substitute comparable rate agreed upon by the Utility Official and the Authority. (The TexPool Rate for October, 2008 was 1.9762%).)

"Utility Official" means the Public Works Director. (The Contract is hereby amended such that the definition of "Utility Official" in the Contract is deleted and replaced with the definition of "Utility Official" contained in this First Supplement.)

"WIF" is defined in Section 2.

"2008 UWF Reservation" is defined in Section 3.

Section 1A. Coastal Water Authority. Houston and the Authority acknowledge that CWA is the sole entity responsible for all decisions and actions relating to the design, development, procurement and construction of all aspects of the Project ("Project Manager"). Houston will provide, in any agreement between Houston and CWA relating to the design and construction of the Project ("CWA Agreement"), that CWA will regularly communicate with the Authority with respect to the design, development, procurement and construction of the Project, by (i) inviting the Authority to participate in certain development and planning meetings between CWA and its consultants in order to facilitate communication and input from the Authority; and (ii) providing that CWA will provide the Authority with written monthly (or other than monthly if mutually agreed to by CWA and the Authority) updates regarding the progress, status of contracts and other relevant aspects of the Project. Such agreement will also provide that CWA will consider the Authority's input. Houston and the Authority recognize that the communication, input and status reports referenced above do not alter CWA's role as the sole Project Manager. In addition, Houston will ensure that CWA will invite the Authority and Houston to all meetings between CWA and its consultants, and between CWA and its construction contractors, where substantive issues that have a financial or project development impact on the Authority or Houston are being discussed. Houston will allow the Authority a reasonable opportunity to review and comment on any proposed supplements, modifications, or amendments to the CWA Agreement.

Section 1B. Project Construction. The Public Works Director shall review and approve: (i) preliminary engineering reports before CWA proceeds with final design of the Project; (ii) final plans for the Project before CWA advertises for construction contracts or otherwise proceeds with construction; and (iii) CWA's proposed award of contract(s) for construction of the Project before CWA awards such construction contract(s). If requested by the Authority, Houston will provide to the Authority copies of documents possessed by Houston regarding the design, construction, or financing of the Project, and Houston may require the Authority to pay for the costs of duplication.

Section 2. Funding of the Project. Subject to the terms of this First Supplement, Houston shall issue (or cause CWA to issue) bonds, notes, or other obligations to pay for all of the costs of the Project, except the Project Right-of-Way Costs and the CWA Interest Amount. Houston shall approve all bonds, notes, or other obligations issued by CWA (including those issued for refunding or refinancing purposes) that are related to the Project prior to CWA's issuance of same. Houston shall ensure that all proceeds, and related accrued interest, from the bonds, notes, or other obligations issued by CWA or Houston for the Project shall only be used by CWA and/or Houston to pay for: (i) costs of construction, surveying, engineering and permitting for the Project; and (ii) issuance costs associated with the bonds, notes, or other obligations for the Project. The Authority shall be obligated to pay Houston the

Phase 1 Annual New Untreated Water Facilities Payments and Phase 2 Annual New Untreated Water Facilities Payments due to Houston pursuant to Sections 5 through 7 of this First Supplement regardless of whether it is Houston or CWA that issues the bonds, notes, or other obligations for the Project. The Authority shall not owe any obligation whatsoever to CWA, including, without limitation, any obligation to pay to CWA any debt service on bonds, notes, or other obligations issued by CWA for the Project.

Houston shall use its best efforts, and shall cause CWA to use its best efforts, to obtain the maximum amount of funds and most favorable financing terms available from the Texas Water Development Board's Water Infrastructure Fund ("WIF") program to pay for the costs for Phase 1, defined below, except for the Project Right-of-Way Costs. In addition to the other terms and conditions of this First Supplement, neither party shall have any obligation to pay any funds for the Project unless and until Houston or CWA have obtained \$28,000,000 in WIF funding for use on the Project under a WIF program that provides for: (i) the accrual of zero interest on such funds for up to 10 years or until the Project is completed, whichever occurs first (the "Up to 10 Year Period"); and (ii) no interest or principal payments on such funds during the Up to 10 Year Period.

Section 2A. Lump Sum Payment for Project Right-of-Way Costs and the Payment for CWA Interest Amount.

Pursuant to this Section 2A, the Authority will be responsible to pay to Houston the Authority's Pro-Rata Share of Payment for Right-of-Way Costs and also the Authority's Pro-Rata Share of CWA Interest Amount. No payments are due from the Authority for Project Right-of-Way or for CWA interest except those payments set forth in this Section 2A. The Authority shall pay Houston the Authority's Pro-Rata Share of CWA Interest Amount no later than January 31, 2009. Promptly (but no later than five (5) business days) thereafter, Houston will forward said funds to CWA.

Currently, Houston estimates that the Project Right-of-Way Costs will be \$15,000,000. The Authority will pay to Houston the Authority's Lump Sum Payment for Right-of-Way Costs in two segments as follows: (i) no later than June 15, 2009, \$1,600,000; and (ii) no later than June 15, 2010, \$800,000. Houston shall (or shall cause CWA to) maintain these funds in an interest bearing account. Houston shall ensure that all proceeds, and related accrued interest, from the Authority's Lump Sum Payment for Right-of-Way Costs shall only be used by CWA and/or Houston to pay for Project Right-of-Way Costs.

In the event Houston reasonably determines that said \$15,000,000 is not sufficient to pay for the Project Right-of-Way Costs, Houston shall immediately notify the Authority and Houston shall reasonably determine the amount of the additional funds

needed to pay for the remainder of the Project Right-of-Way Costs ("Additional Right-of-Way Costs"). Thereafter, Houston shall invoice the Authority for the Authority's Additional Payment for Right-of-Way Costs, which invoice the Authority shall pay to Houston within ninety (90) days of receipt.

Once CWA or Houston has acquired all of the Project Right-of-Way, but no later than June 30, 2014, Houston shall notify the Authority that all of the Project Right-of-Way has been acquired. Within one hundred eighty (180) days thereafter, Houston shall (or shall cause CWA to) prepare an accounting of the total Project Right-of-Way Costs actually paid by Houston or CWA. Such accounting shall also state the difference, if any, between: (i) the amounts paid by the Authority for Project Right-of-Way Costs pursuant to this Section 2A, and (ii) the Authority's Pro-Rata Share of Payment for Right-of-Way Costs. Houston shall (or shall cause CWA to) provide the Authority with 65 days to review and comment on such accounting prior to the accounting being finalized. Houston and the Authority agree to "true-up" the payments made by the Authority for Project Right-of-Way Costs such that if the Authority has underpaid, taking into account interest accrued, it will pay Houston such shortfall within 60 days of the Authority receiving the final accounting, and Houston agrees to refund to the Authority any overpayment, taking into account interest accrued, within 60 days of Houston receiving the final accounting if the Authority overpaid.

Section 3. Reservation. The Authority seeks to increase its Untreated Water Facilities Demand Allocation from 31.0 MGD to 159.0 MGD (which is currently estimated to be the Authority's surface water demand in the year 2040). The Authority hereby makes a Reservation request for said 128.0 MGD increase (the "2008 UWF Reservation"). (It is agreed and understood that nothing in this First Supplement shall be construed to be a Reservation for Treated Water Facilities. Reservations for Treated Water Facilities shall be governed by the Contract.) Upon completion of the Project, as certified by the Utility Official, the 2008 UWF Reservation will be deemed approved.

Houston agrees to cause the construction of the Project so that it is substantially complete and able to deliver water no later than June 30, 2019. The Utility Official shall issue a written certification to the Authority that the Project has been completed no later than sixty (60) days after the Project is completed. Houston shall cause the Project to be designed, acquired and constructed in two phases, as described below. Phase 1 of the Project ("Phase 1") shall be the permitting, engineering, surveying, right-of-way and site acquisition necessary for the Project, which is currently estimated at a cost of \$43,000,000. Phase 2 of the Project ("Phase 2") shall be the construction and related costs (for example, without limitation, construction administration, project representation, materials testing) necessary for the Project, which is currently estimated at a cost of \$214,000,000.

As payment for the 2008 UWF Reservation and the Authority's share of the costs of the Project, the Authority shall owe Houston: (i) the payments due under Section 2A; (ii) the four (4) Payments for Existing Untreated Water Facilities, described below; and (iii) the Phase 1 and Phase 2 Annual New Untreated Water Facilities Payments, described below. Upon completion of the Project, as certified by the Utility Official, the Authority's New UWFDA shall be 159.0 MGD and the Authority shall be entitled to receive same. The only payments due from the Authority whatsoever for the Project or the 2008 UWF Reservation are: (i) the payments due under Section 2A; (ii) the four (4) Payments for Existing Untreated Water Facilities, described below; and (iii) the Phase 1 and Phase 2 Annual New Untreated Water Facilities Payments described below.

Section 4A. Payment for Existing Untreated Water Facilities Formula. The formula in Section 3.02(c) of the Contract used to calculate the Payment for Existing Untreated Water Facilities shall not apply to the 2008 UWF Reservation. Instead, the formula and provisions of Sections 4A and 4B of this Supplement shall apply. For the 2008 UWF Reservation, the Authority shall make four (4) Payments for Existing Untreated Water Facilities, as described below:

(1) The 1st Payment for Existing Untreated Water Facilities For the 2008 UWF Reservation shall be calculated as follows: (A/B)C

Where: "A" is 90.9 MGD, which is the portion (in MGD) of the 2008 UWF Reservation that the Authority has determined that it needs by June 30, 2025. If pursuant to Section 8 of this First Supplement, prior to June 30, 2019, the Authority submits a written request to Houston to receive (prior to completion of the Project) a portion of the Water included in "A" of the preceding sentence, and said request is approved in writing by the Utility Official pursuant to the Contract, then "A" in the preceding sentence shall be reduced by the amount of such request. (For example, if prior to June 30, 2019, the Authority were to request, and obtain Utility Official approval for, 2 MGD out of the amount included in "A," then "A" would be reduced to 88.9 MGD.)

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2011, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities (such facilities being shown on Exhibit "A" of the Contract) as of July 1, 2011. In no event shall "C" be greater than \$182,952,232.

(2) The 2nd Payment for Existing Untreated Water Facilities For the 2008 UWF Reservation shall be calculated as follows: (A/B)C

Where: "A" is the additional portion (in MGD) of the 2008 UWF Reservation that the Authority needs by June 30, 2030, as determined by the Authority. No later than June 30, 2020, the Authority shall determine this amount and shall issue a written notice to the Utility Official identifying this amount.

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2019, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities (such facilities being shown on Exhibit "A" of the Contract) as of July 1, 2019. In no event shall "C" be greater than \$107,438,399.

(3) The 3rd Payment for Existing Untreated Water Facilities For the 2008 UWF Reservation shall be calculated as follows: (A/B)C

Where: "A" is the additional portion (in MGD) of the 2008 UWF Reservation that the Authority needs by June 30, 2035, as determined by the Authority. No later than June 30, 2025, the Authority shall determine this amount and shall issue a written notice to the Utility Official identifying this amount.

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2024, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities (such facilities being shown on Exhibit "A" of the Contract) as of July 1, 2024. In no event shall "C" be greater than \$74,538,900.

(4) The 4th Payment for Existing Untreated Water Facilities For the 2008 UWF Reservation shall be calculated as follows: (A/B)C

Where: "A" is the additional portion (in MGD) of the 2008 UWF Reservation that the Authority needs by June 30, 2040, as determined by the Authority. No

later than June 30, 2030, the Authority shall determine this amount and shall issue a written notice to the Utility Official identifying this amount.

"B" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2029, including such untreated surface water received at Houston's water treatment plants as well as billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"C" is the Outstanding Debt for all Existing Untreated Water Facilities (such facilities being shown on Exhibit "A" of the Contract) as of July 1, 2029. In no event shall "C" be greater than \$46,453,350.

Section 4B. Payment for Existing Untreated Water Facilities Due Dates. Houston shall provide the Authority with the calculation for the 1st Payment for Existing Untreated Water Facilities no later than October 1, 2011. The Authority shall pay Houston the 1<sup>st</sup> Payment for Existing Untreated Water Facilities no later than sixty (60) days after the Authority receives written certification from the Utility Official that the Project has been completed.

Houston shall provide the Authority with the calculation for the 2<sup>nd</sup> Payment for Existing Untreated Water Facilities no later than October 1, 2020. The Authority shall pay Houston the 2<sup>nd</sup> Payment for Existing Untreated Water Facilities upon the earlier of: (i) sixty (60) days after the Authority sends written notice to Houston that the Authority requires the Water included in "A" in the 2<sup>nd</sup> Payment for Existing Untreated Water Facilities formula; or (ii) June 30, 2025.

Houston shall provide the Authority with the calculation for the 3rd Payment for Existing Untreated Water Facilities no later than October 1, 2025. The Authority shall pay Houston the 3rd Payment for Existing Untreated Water Facilities upon the earlier of: (i) sixty (60) days after the Authority sends written notice to Houston that the Authority requires the Water included in "A" in the 3rd Payment for Existing Untreated Water Facilities formula; or (ii) June 30, 2030.

Houston shall provide the Authority with the calculation for the 4th Payment for Existing Untreated Water Facilities no later than October 1, 2030. The Authority shall pay Houston the 4th Payment for Existing Untreated Water Facilities upon the earlier of: (i) sixty (60) days after the Authority sends written notice to Houston that the Authority requires the Water included in "A" in the 4th Payment for Existing Untreated Water Facilities formula; or (ii) June 30, 2035.

Section 5. Formulas for Phases 1 and 2 Annual New Untreated Water Facilities Payment. The formulas in Section 3.02(c) of the Contract used to calculate the

Annual New Untreated Water Facilities Payments shall not apply to the Authority's New UWFDA. Instead, the formula and provisions of this Section 5 shall apply. For the Authority's New UWFDA, the Authority shall pay Houston the Phase 1 Annual New Untreated Water Facilities Payment and Phase 2 Annual New Untreated Water Facilities Payment as described below:

(1) Phase 1 Annual New Untreated Water Facilities Payment =  $(D/E)F$

Where: "D" is 159.0 MGD, which is the Authority's 31.0 MGD current Untreated Water Facilities Demand Allocation plus the additional 128.0 MGD that the Authority will obtain via the 2008 UWF Reservation upon completion of the Project.

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Phase 1 Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"F" is the Annual Outstanding Debt Service for Phase 1 of the Project as of the first day of the Houston fiscal year in which Houston calculates the Phase 1 Annual New Untreated Water Facilities Payment. ("F" shall equal zero for any Houston fiscal year in which the Annual Outstanding Debt Service for Phase 1 is zero.)

(2) Phase 2 Annual New Untreated Water Facilities Payment =  $(D/E)G$

Where: "D" is 159.0 MGD, which is the Authority's 31.0 MGD current Untreated Water Facilities Demand Allocation plus the additional 128.0 MGD that the Authority will obtain via the 2008 UWF Reservation upon completion of the Project.

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Phase 2 Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"G" is the Annual Outstanding Debt Service for Phase 2 of the Project as of the first day of the Houston fiscal year in which Houston calculates the Phase 2 Annual New Untreated Water Facilities Payment. ("G" shall equal zero for any Houston fiscal year in which the Annual Outstanding Debt Service for Phase 2 is zero.)

Section 5A. Definition of "Annual Outstanding Debt Service." The term "Annual Outstanding Debt Service" shall mean the amount of debt service (principal and interest) actually owed by Houston during a Houston fiscal year on any and all bonds, notes, or other obligations for construction and acquisition of the applicable New Untreated Water Facilities. In determining the amount of principal and interest actually owed by Houston, the amount of any capitalized interest (and its interest earnings) attributable to said bonds, notes, or other obligations and the amount of any debt service reserve fund (and its interest earnings) attributable to said bonds, notes, or other obligations shall be taken into account. In connection with the interest earnings described in the preceding sentence that are attributable to bonds, notes, or other obligations issued for the Project, if rebate or yield reduction payments are due from Houston and/or CWA to the United States of America pursuant to the requirements of the Internal Revenue Code of 1986 (as amended from time to time) or the Treasury Regulations promulgated from time to time thereunder, Houston and/or CWA shall be authorized to use proceeds out of such interest earnings to make such payments; and, if such proceeds are insufficient to make the necessary payment, then any shortfall may thereafter be included in the calculation of "Annual Outstanding Debt Service."

Section 6. Calculation and Administration of Phase 1 Annual New Untreated Water Facilities Payments. Notwithstanding any provision of this First Supplement, Houston shall cause the bonds, notes, or other obligations issued by CWA or Houston to finance Phase 1 to be structured such that there is no Annual Outstanding Debt Service for Phase 1 until after January 1, 2018. The bonds, notes, or other obligations issued for Phase 1 will have two (2) debt service payments in each Fiscal Year and, accordingly, the Phase 1 Annual New Untreated Water Facilities Payment will be divided into two (2) payments in each Fiscal Year. Starting with the Fiscal Year beginning July 1, 2009, and continuing for each Fiscal Year thereafter, Houston will calculate, according to the formula above, the Authority's Phase 1 Annual New Untreated Water Facilities Payment and will provide the Authority with a remittance letter (the "Phase 1 Annual Letter") within 60 days after the beginning of each Fiscal Year. The Phase 1 Annual Letter will include for that Fiscal Year: (i) the calculation for the Authority's Phase 1 Annual New Untreated Water Facilities Payment; (ii) the calculation of the portion of Annual Outstanding Debt Service for Phase 1 to be paid by the City and all other entities (including water authorities); and (iii) the dollar amounts, wiring instructions, and the remittance date ("Phase 1 Remittance Date") for each of the two portions of the Authority's Phase 1 Annual New Untreated Water Facilities Payment. Each of the two Phase 1 Remittance Dates will be no more than twenty (20)

business days prior to the date of the applicable actual debt service payment due from Houston in each Fiscal Year. For any Fiscal Year in which the Annual Outstanding Debt Service for Phase 1 is zero, the Phase 1 Annual Letter shall state that no payment is due from the Authority for such Fiscal Year. The Authority shall wire its Phase 1 Annual New Untreated Water Facilities Payment directly to Houston pursuant to the wiring instructions included in the Phase 1 Annual Letter on or before the Phase 1 Remittance Dates.

Houston shall maintain each Phase 1 Annual New Untreated Water Facilities Payment in an interest-bearing account, which interest (and any interest accrued on such interest) shall be credited by Houston against the Authority's next Phase 1 Annual New Untreated Water Facilities Payment. Each Phase 1 Annual Letter issued by Houston shall identify the amount of such interest credited to the Authority.

The Authority shall owe Houston the Phase 1 Annual New Untreated Water Facilities Payment each year during the life of the bonds, notes or other obligations issued by CWA or Houston to finance Phase 1 or until the Contract is no longer in effect, whichever occurs first. To assist the Authority in its financial planning, Houston shall, prior to the last day of each Fiscal Year, send a written statement to the Authority of Houston's reasonable estimate of: (i) the Annual Outstanding Debt Service for Phase 1 for each of the following three (3) Fiscal Years; and (ii) the amount of untreated surface water that Houston estimates will be included in factor "E" in Section 5 for each of the following three (3) Fiscal Years. Houston shall use the Phase 1 Annual New Untreated Water Facilities Payments, and interest accrued thereon in the interest-bearing account described in the preceding paragraph, only for the purpose of paying Annual Outstanding Debt Service on the bonds, notes or other obligations issued by CWA or Houston for the costs of Phase 1.

Houston will ensure that: (i) at no time will the amount held in any reserve fund associated with bonds, notes or other obligations issued by CWA or Houston for the costs of Phase 1 exceed the amount authorized for a "bona fide debt service fund" for tax-exempt obligations; and (ii) to the extent not required to pay rebate amounts to the United States, surplus or other remaining amounts in any such reserve funds will be applied upon the final maturities of principal of and interest on the bonds, notes or other obligations to pay principal of and interest then due, so that on final maturity of the bonds, notes or other obligations no balances will remain in any reserve fund.

Section 7. Calculation and Administration of Phase 2 Annual New Untreated Water Facilities Payments. Notwithstanding any provision of this First Supplement, Houston shall use its best efforts to cause the bonds, notes, or other obligations issued by CWA or Houston to finance Phase 2 to be structured such that there is no Annual Outstanding Debt Service for Phase 2 until after January 1, 2018. The bonds, notes, or other obligations issued for Phase 2 will have two (2) debt service payments in each Fiscal Year and, accordingly, the Phase 2 Annual New Untreated Water Facilities

Payment will be divided into two (2) payments in each Fiscal Year. Starting with the first Fiscal Year in which such bonds, notes, or other obligations are issued, and continuing for each Fiscal Year thereafter, Houston will calculate, according to the formula above, the Authority's Phase 2 Annual New Untreated Water Facilities Payment and will provide the Authority with a remittance letter (the "Phase 2 Annual Letter") within 60 days after the beginning of each Fiscal Year. The Phase 2 Annual Letter will include for that Fiscal Year: (i) the calculation for the Authority's Phase 2 Annual New Untreated Water Facilities Payment; (ii) the calculation of the portion of Annual Outstanding Debt Service for Phase 2 to be paid by the City and all other entities (including water authorities); and (iii) the dollar amount, wiring instructions, and the remittance date ("Phase 2 Remittance Date") for each of the two portions of the Authority's Phase 2 Annual New Untreated Water Facilities Payment. Each of the two Phase 2 Remittance Dates will be no more than twenty (20) business days prior to the date of the applicable actual debt service payment due from Houston in each Fiscal Year. For any Fiscal Year in which the Annual Outstanding Debt Service for Phase 2 is zero, the Phase 2 Annual Letter shall state that no payment is due from the Authority for such Fiscal Year. The Authority shall wire its Phase 2 Annual New Untreated Water Facilities Payment directly to Houston pursuant to the wiring instructions included in the Phase 2 Annual Letter on or before the Phase 2 Remittance Dates.

Houston shall maintain each Phase 2 Annual New Untreated Water Facilities Payment in an interest-bearing account, which interest (and any interest accrued on such interest) shall be credited by Houston against the Authority's next Phase 2 Annual New Untreated Water Facilities Payment. Each Phase 2 Annual Letter issued by Houston shall identify the amount of such interest credited to the Authority.

The Authority shall owe Houston the Phase 2 Annual New Untreated Water Facilities Payment each year during the life of the bonds, notes or other obligations issued by CWA or Houston to finance Phase 2 or until the Contract is no longer in effect, whichever occurs first. To assist the Authority in its financial planning, Houston shall, prior to the last day of each Fiscal Year, send a written statement to the Authority of Houston's reasonable estimate of: (i) the Annual Outstanding Debt Service for Phase 2 for each of the following three (3) Fiscal Years; and (ii) the amount of untreated surface water that Houston estimates will be included in factor "E" in Section 5 for each of the following three (3) Fiscal Years. Houston shall use the Phase 2 Annual New Untreated Water Facilities Payments, and interest accrued thereon in the interest-bearing account described in the preceding paragraph, only for the purpose of paying Annual Outstanding Debt Service on the bonds, notes or other obligations issued by CWA or Houston for the costs of Phase 2.

Houston will ensure that: (i) at no time will the amount held in any reserve fund associated with bonds, notes or other obligations issued by CWA or Houston for the costs of Phase 2 exceed the amount authorized for a "bona fide debt service fund" for

tax-exempt obligations; and (ii) to the extent not required to pay rebate amounts to the United States, surplus or other remaining amounts in any such reserve funds will be applied upon the final maturities of principal of and interest on the bonds, notes or other obligations to pay principal of and interest then due, so that on final maturity of the bonds, notes or other obligations no balances will remain in any reserve fund.

Prior to commencement of Phase 2, Houston shall attempt to obtain the Authority's written consent as to the date that Houston proposes commencement of Phase 2. The Authority shall not be obligated to pay any Phase 2 Annual New Untreated Water Facilities Payments until the Authority has consented in writing to the commencement of Phase 2; provided, however, if the Authority fails to provide such written consent to Houston by January 1, 2014, Houston shall have the right to commence Phase 2 and the Authority shall, after January 1, 2014, be required to pay Phase 2 Annual New Untreated Water Facilities Payments pursuant to this First Supplement.

Section 8. Requests To Obtain Water Prior To June 30, 2019. If, prior to July 1, 2012, the Authority submits a written request to Houston to receive (prior to completion of the Project) a portion of the Untreated Water included in "A" of the 1st Payment for Existing Untreated Water Facilities formula, and said request is approved in writing by the Utility Official pursuant to the Contract, then the payment for said request shall be calculated under 3.02(b) of the Contract and "B" and "C" in Section 3.02(b) of the Contract shall have the definition that is provided for "B" and "C", respectively, in Section 3.02(b) of the Contract. If, however, after July 1, 2012, but before June 30, 2019, the Authority submits a written request to Houston to receive (prior to completion of the Project) a portion of the Untreated Water included in "A" of the 1st Payment for Existing Untreated Water Facilities formula, and said request is approved in writing by the Utility Official pursuant to the Contract, then for purposes of that request, "B" and "C" in Section 3.02(b) of the Contract shall be revised to mean the definitions of "B" and "C" that are provided in Section 4A(1) of this First Supplement. The payment for Water received under any requests made pursuant to this Section 8 shall be made by the applicable due date required in Section 3.02(b) of the Contract; provided, however, in no event shall such payment be made to Houston later than sixty (60) days after the Authority receives written certification from the Utility Official that the Project has been completed. Any request submitted to the Utility Official under Section 3.02(b) of the Contract prior to June 30, 2019, as provided for in this Section 8, shall not be considered as exceeding the Authority's New UWFDA.

Section 9. Payment for Untreated Water Facilities Costs Avoided. If before December 31, 2028, the Authority submits a Reservation request that exceeds the Authority's New UWFDA and such Reservation does not require the construction of New Untreated Water Facilities, the Authority shall pay Houston the "Payment for Untreated Water Facilities Costs Avoided." The Payment for Untreated Water Facilities

Costs Avoided shall equal the total dollar amount, without interest or penalty, of the applicable Payment for Existing Untreated Water Facilities, as calculated under this First Supplement, and the total accrued Phase 1 and 2 Annual New Untreated Water Facilities Payments which would have been paid by the Authority, according to the hereinbefore formulas of this First Supplement, had the Authority made a Reservation request for such increase in this First Supplement. The Payment for Untreated Water Facilities Costs Avoided shall be made to Houston within one hundred twenty (120) days of the Authority's receipt of the Utility Official's approval of such later Reservation request. The Authority shall not owe Houston the Payment for Untreated Water Facilities Costs Avoided for a Reservation request that exceeds the Authority's New UWFDA if: (i) the Authority submits the Reservation request before December 31, 2028, and the Reservation requires the construction of New Untreated Water Facilities; or (ii) the Authority submits the Reservation request, regardless of whether or not it requires construction of New Untreated Water Facilities, after December 31, 2028.

The Payment for Untreated Water Facilities Costs Avoided, if any, with respect to the Project shall be calculated and determined pursuant to the preceding paragraph of this Section 9, and not pursuant to the final paragraph of Section 3.02 of the Contract.

Section 10. Future Reservations. The provisions of Sections 10, 10A, 10B, 10C, 10D, and 10E apply only to: (i) future Reservations of the Untreated Water Facilities Demand Allocation that exceed the Authority's New UWFDA; or (ii) to New Untreated Water Facilities, except for the Project. The Project shall be considered "New Untreated Water Facilities" for purposes of the Contract and this First Supplement. Subject to the provisions of this Section 10 (and Sections 10A, 10B, 10C, 10D, and 10E), the payment for all future Reservations of the Untreated Water Facilities Demand Allocation that exceed the Authority's New UWFDA (regardless of whether or not the Reservation requires construction of New Untreated Water Facilities) shall be calculated and made pursuant to the formulas of Section 3.02(c) of the Contract, as amended by this First Supplement, and not Sections 3.02(a) or (b) of the Contract. The Payment for Existing Untreated Water Facilities shall remain as set forth in Section 3.02(c) of the Contract and the Annual New Untreated Water Facilities Payment shall be revised and due as described below in Sections 10A, 10B, 10C, 10D, and 10E.

Section 10A. For a future Reservation of the Untreated Water Facilities Demand Allocation by the Authority that exceeds the Authority's New UWFDA and does not require the construction of New Untreated Water Facilities, the formula for Annual New Untreated Water Facilities Payment in Section 3.02(c) of the Contract shall be revised to read as described below in this Section 10A.

$$\text{Annual New Untreated Water Facilities Payment} = (X/E)Z$$

Where: "X" is the amount (in MGD) that the Authority seeks to increase its Untreated Water Facilities Demand Allocation, as identified in the applicable Authority Reservation request pursuant to this Section 3.02(c).

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"Z" is the Annual Outstanding Debt Service for all New Untreated Water Facilities as of the first day of the Houston fiscal year in which Houston calculates the Annual New Untreated Water Facilities Payment.

Section 10B. For a future Reservation of the Untreated Water Facilities Demand Allocation by the Authority that exceeds the Authority's New UWFDA and requires the construction of New Untreated Water Facilities, the formula for Annual New Untreated Water Facilities Payment in Section 3.02(c) of the Contract shall be revised to read as described below in this Section 10B.

$$\text{Annual New Untreated Water Facilities Payment} = (X1/E)Y + (X/E)Y1$$

Where: "X1" is the Authority's then-current Untreated Water Facilities Demand Allocation, plus the amount (in MGD) that the Authority seeks to increase its Untreated Water Facilities Demand Allocation upon completion of the New Untreated Water Facilities, as identified in the applicable Authority Reservation request pursuant to this Section 3.02(c).

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-

or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"Y" is the Annual Outstanding Debt Service for all New Untreated Water Facilities (except the Project) as of the first day of the Houston fiscal year in which Houston calculates the Annual New Untreated Water Facilities Payment.

"X" is the amount (in MGD) that the Authority seeks to increase its Untreated Water Facilities Demand Allocation, as identified in the applicable Authority Reservation request pursuant to this Section 3.02(c).

"Y1" is the Annual Outstanding Debt Service for the Project as of the first day of the Houston fiscal year in which Houston calculates the Annual New Untreated Water Facilities Payment.

Section 10C. If Houston constructs or acquires New Untreated Water Facilities for any reason and the Authority does not desire capacity in the New Untreated Water Facilities and accordingly does not make a Reservation request for same, the formula for Annual New Untreated Water Facilities Payment in Section 3.02(c) of the Contract shall be revised to read as described below in this Section 10C.

$$\text{Annual New Untreated Water Facilities Payment} = (U/E)Y$$

Where: "U" is the Authority's then-current Untreated Water Facilities Demand Allocation (in MGD).

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during the Houston fiscal year that precedes the date Houston calculates the Annual New Untreated Water Facilities Payment, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"Y" is the Annual Outstanding Debt Service for all New Untreated Water Facilities (except the Project) as of the first day of the Houston fiscal year in which Houston calculates the Annual New Untreated Water Facilities Payment.

Section 10D. Any Annual New Untreated Water Facilities Payments that may be due pursuant to Sections 10A, 10B, or 10C shall be in addition to the Phase 1 Annual New Untreated Water Facilities Payments and Phase 2 Annual New Untreated Water Facilities Payments otherwise due under Sections 5 through 7.

Section 10E. The paragraph in Section 3.02(c) of the Contract that begins with the phrase "Within ninety (90) days . . ." and ends with the phrase "three (3) Houston fiscal years" is deleted. The paragraph in Section 3.02(c) of the Contract that begins with the phrase "Houston shall maintain" and ends with the phrase "if the Authority overpaid" is deleted. The following provisions of this Section 10E hereby replace the two (2) aforementioned deleted paragraphs:

"The bonds, notes, or other obligations issued for New Untreated Water Facilities will have two (2) debt service payments in each Fiscal Year and, accordingly, the Annual New Untreated Water Facilities Payment will be divided into two (2) payments in each Fiscal Year. Starting with the Fiscal Year in which the Authority makes a Reservation under Sections 10A or 10B (or the Fiscal Year in which Houston first issues bonds, notes, or other obligations to finance New Untreated Water Facilities under Section 10C), and continuing for each Fiscal Year thereafter, Houston will calculate, according to the applicable formula above, the Authority's Annual New Untreated Water Facilities Payment and will provide the Authority with a remittance letter within 60 days after the beginning of each Fiscal Year. Such letter will include for that Fiscal Year: (i) the calculation for the Authority's Annual New Untreated Water Facilities Payment; (ii) the calculation of the portion of Annual Outstanding Debt Service to be paid by the City and all other entities (including water authorities); and (iii) the dollar amounts, wiring instructions, and the remittance date for each of the two portions of the Authority's Annual New Untreated Water Facilities Payment. Each of the two remittance dates will be no more than twenty (20) business days prior to the date of the applicable actual debt service payment due from Houston in each Fiscal Year. For any Fiscal Year in which the Annual Outstanding Debt Service for the New Untreated Water Facilities is zero, said letter shall state that no payment is due from the Authority for such Fiscal Year. The Authority shall wire its Annual New Untreated Water Facilities Payment directly to Houston pursuant to the wiring instructions included in said letter on or before said remittance dates.

Houston shall maintain each Annual New Untreated Water Facilities Payment in an interest-bearing account, which interest (and any interest accrued on such interest) shall be credited by Houston against the Authority's next Annual New Untreated Water Facilities Payment. Each aforementioned letter issued by Houston shall identify the amount of such interest credited to the Authority.

The Authority shall owe Houston the Annual New Untreated Water Facilities Payment each year during the life of the bonds, notes or other obligations issued by Houston to finance the New Untreated Water Facilities or until the Contract is no longer in effect, whichever occurs first. To assist the Authority in its financial planning, Houston shall, prior to the last day of each Fiscal Year, send a written statement to the Authority of Houston's reasonable estimate of: (i) the Annual Outstanding Debt

Service for New Untreated Water Facilities for each of the following three (3) Fiscal Years; and (ii) the amount of untreated surface water that Houston estimates will be included in factor "E" in Sections 10A, 10B, or 10C for each of the following three (3) Fiscal Years. Houston shall use the Annual New Untreated Water Facilities Payments, and interest accrued thereon in the interest-bearing account described in the preceding paragraph, only for the purpose of paying Annual Outstanding Debt Service on the bonds, notes or other obligations issued for the New Untreated Water Facilities.

Houston will ensure that: (i) at no time will the amount held in any reserve fund associated with bonds, notes or other obligations issued by Houston for the costs of New Untreated Water Facilities exceed the amount authorized for a "bona fide debt service fund" for tax-exempt obligations; and (ii) to the extent not required to pay rebate amounts to the United States, surplus or other remaining amounts in any such reserve funds will be applied upon the final maturities of principal of and interest on the bonds, notes or other obligations to pay principal of and interest then due, so that on final maturity of the bonds, notes or other obligations no balances will remain in any reserve fund."

Section 11. Bonds, Notes and Other Obligations Issued for the Project. Houston shall cause the Annual Outstanding Debt Service for the Project and the bonds, notes, or other obligations issued by CWA or Houston for the Project to be structured in a manner consistent with the criteria set forth in Exhibit "A" attached hereto. Houston may from time to time refinance, or cause the refinancing of, the outstanding debt service or outstanding debt for the Project; provided, however, Houston shall not refinance or modify (or allow any refinancings or modifications) of the outstanding debt service or outstanding debt for the Project that would increase any payments due from the Authority or extend any time-period(s) during which the Authority owes payments to Houston. Starting in 2008, Houston will annually provide to the Authority a copy of Houston's Comprehensive Annual Financial Report ("CAFR") and a report showing Houston's outstanding debt and outstanding debt service for all Untreated Water Facilities.

Section 12. Terms of Contract. This First Supplement shall control over the Contract with respect to the matters addressed in this First Supplement, included, without limitation: (i) the Project and all payments from the Authority related to same, and (ii) the 2008 UWF Reservation, the Authority's New UWFDA, and all payments related to both of same. Except to the extent inconsistent with this First Supplement, all terms of the Contract remain in full force and effect. Capitalized terms used in this First Supplement that are not defined in this First Supplement shall have the same meanings given such terms in the Contract. This First Supplement, the Contract, the "Interlocal Cost Sharing Agreement (Greens Road Water Line Project)" effective March 11, 2005, and the "Interim Treated Water Supply Contract" effective March 18, 2003, contain all the agreements made between the parties. This First Supplement shall be for the sole

and exclusive benefit of the parties hereto and shall not be construed to confer any rights upon any third party. The parties agree that this First Supplement shall not be construed in favor of or against either party on the basis that the party did or did not author this First Supplement.

Section 13. Use of Water. While it is understood that Houston may use, dispose of, sell and/or transfer any water (other than the Authority's Untreated Water Facilities Demand Allocation) from the Project, Houston agrees that such use, disposition, sale or transfer shall not harm the Authority or impinge upon the Authority's rights under the Contract or this First Supplement. Although CWA is the Project Manager and may issue bonds, notes, or other obligations for the Project, Houston shall at all times be obligated to provide the Authority with the Authority's Water Demand Allocation (including its Untreated Water Facilities Demand Allocation) pursuant to the Contract and this First Supplement.

Section 14. Existing Payments. With respect to the Authority's Water Demand Allocation as it existed prior to the Effective Date, nothing in this First Supplement shall be construed to relieve the Authority of its obligation to pay the City payments, if any, that are otherwise due to the City: (i) for Existing Untreated Water Facilities pursuant to Section 3.02(a) and 3.02(b) of the Contract; (ii) for Treated Water Facilities pursuant to Section 3.03 of the Contract; or (iii) for O&M Expenses pursuant to Article IV of the Contract.

Section 15. Term. Article V of the Contract is deleted and replaced with the following: "The Contract (being effective as of the date provided in the Contract) and the First Supplement (being effective as of the Effective Date) shall expire at noon on January 1, 2080. At such time as the Contract and the First Supplement are no longer in force and effect, if requested in writing by the Authority, Houston agrees to continue to provide water services to the Authority upon the payment of reasonable rates and charges therefor which take into account the capital payments paid by the Authority to Houston pursuant to the Contract (and any supplements, including the First Supplement, or amendments thereto) and the Authority's equitable interest described below. Upon the date that the Contract and the First Supplement are no longer in force and effect, the Authority will own the right to use the capacity of the Untreated Water Facilities and Treated Water Facilities proportionate to the amount of its Water Demand Allocation as it existed immediately prior to such date. The immediately preceding two (2) sentences shall survive the expiration or termination of the Contract and the First Supplement."

Section 16. O&M Expenses. The Contract currently provides that the Authority will pay the estimated O&M Expenses monthly by paying 1/12 of the Annual O&M Budget. The parties, however, seek to hereby amend the Contract to instead provide that the Authority will pay the estimated O&M Expenses on a per 1,000 gallons

consumption basis. The parties also seek to hereby amend the Contract to delete the requirement that an O&M Reserve be maintained.

The first sentence of Section 4.03 of the Contract is deleted and replaced with the following: "Ninety (90) days prior to the commencement of delivery of Water under this Contract, and ninety (90) days prior to the beginning of each Fiscal Year thereafter, Houston shall provide the Authority for its review and comment the proposed Annual O&M Budget showing (i) an estimate of costs and expenses to be included in items "C" and "D" of the formula shown in Section 4.02 of the Contract for the coming Fiscal Year; (ii) a calculation of the estimated O&M Expenses for the coming Fiscal Year, and (iii) the Estimated O&M Rate for the coming Fiscal Year."

The first paragraph of Section 4.04 of the Contract is deleted and replaced with the following: "During Each Fiscal Year, Houston will invoice the Authority monthly for the Authority's share of estimated O&M Expenses, and the charge on such invoice shall be calculated by multiplying (A) the Estimated O&M Rate times (B) the amount of Water taken by the Authority during the prior month, as determined by Houston's reading of the measuring equipment at the Point(s) of Measurement. The Authority shall pay such invoices within 35 days after receipt. Any late payment shall bear interest at the rate applicable under Chapter 2251, Texas Government Code."

In addition to the requirements of Section 4.06 of the Contract, the Annual Audit shall include: (i) the difference between the Estimated O&M Rate and the Actual O&M Rate; (ii) the amount of overpayment or underpayment of O&M Expenses by the Authority; and (iii) the amount of interest due pursuant to this paragraph. The fourth sentence of Section 4.06 is deleted and replaced with the following: "During the next Fiscal Year, Houston and the Authority agree to "true-up" the payments made for O&M Expenses during the prior Fiscal Year such that if the Authority has underpaid it will make timely payment of all O&M Expenses owed, plus interest described below, in the next monthly billing following the Authority's receipt of the final audit; and Houston agrees to give credit to the Authority if it has overpaid O&M Expenses for the prior Fiscal Year, such credit, plus the interest described below, shall be given on the next monthly billing(s) following Houston's receipt of the final audit. The amount of any underpayments or overpayments of O&M Expenses by the Authority shall accrue simple interest at the Texpool Rate, on a monthly basis, from the date payment was due until the date the true-up is completed pursuant to the preceding sentence. Prior to completion of the audit, Houston will provide the Authority at least 40 days to review and comment on the draft audit."

On or before January 15<sup>th</sup> each year, the Authority shall provide Houston with its Anticipated Demand in order for Houston to be able to prepare the Annual O&M Budget as required under the Contract.

The requirement in the Contract requiring that an O&M Reserve be maintained is hereby deleted. Accordingly, the second paragraph of Section 4.04 of the Contract is hereby deleted.

Section 17. Outstanding Debt for Untreated Water Facilities. Exhibit "E" of the Contract included estimated costs for certain items (the "Items") listed in said Exhibit "E." Section 3.02(a) of the Contract contemplated that Houston would, after the effective date of the Contract, incur actual Outstanding Debt for the Items. Houston has heretofore incurred Outstanding Debt for the Items. Accordingly, the Authority and Houston agree that: (i) Factor "C" on Exhibit "E" of the Contract is revised to read as shown on the attached Exhibit "B"; and (ii) the definition of "C" on page 6 of the Contract is amended to read as follows "C equals \$365,655,353, which is the Outstanding Debt as shown on Exhibit "B" to the First Supplement, items 1-8 inclusive, for all Existing Untreated Water Facilities (such facilities being shown on Exhibit "A" of the Contract)".

[EXECUTION PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have executed this First Supplement in multiple copies, each of which shall be deemed to be an original, effective on the date of countersignature indicated below.

CITY OF HOUSTON, TEXAS

By: Bill White  
Mayor Anaya Ulloa

Executed for and on behalf of City  
pursuant to authority granted by  
the City Council Ordinance No. 2009-52  
passed January 28,  
2009, a copy of which is attached  
hereto for reference.

ATTEST/SEAL

Barbara J. Jurg  
ACTING ASSISTANT CITY SECRETARY

APPROVED:

871 Orlando Martinez  
Director, Department of Public Works  
and Engineering

APPROVED AS TO FORM:

Edgar R.  
Sr. Assistant City Attorney  
L.D. File No. 80-99041-01

COUNTERSIGNED BY:

Annise D. Parker  
City Controller Loral Port

DATE COUNTERSIGNED: 1-30-09

**NORTH HARRIS COUNTY REGIONAL  
WATER AUTHORITY**

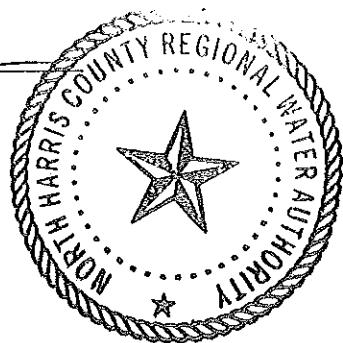
By: Kelly P. Fessler  
Kelly P. Fessler, President

Date Signed: 1/5/09

ATTEST:

By: Ron Graham  
Ron Graham, Secretary

(AUTHORITY SEAL)



APPROVED:

By: Jimmie Schindewolf  
Jimmie Schindewolf, P.E.  
General Manager

## **Exhibit "A"**

The Annual Outstanding Debt Service for the Project and the bonds, notes, or other obligations issued by CWA or Houston for the Project will adhere to the following:

1. The bonds, notes, or other obligations will have a final stated maturity no earlier than 20 years, and no later than 30 years, after their date of issuance (though serial maturities and sinking fund redemption may be earlier).
2. During the period where debt service is due, the maximum annual debt service payment on any issuance of bonds, notes, or other obligations shall not exceed the average annual debt service payment on that issuance by more than 25%.
3. The bonds, notes, or other obligations shall be optionally callable, without a premium, no later than 15 years after the date of issuance.
4. Any debt service reserve fund for the bonds, notes, or other obligations shall be: (i) funded with proceeds of the bonds, notes, or other obligations; and/or (ii) satisfied with a surety policy acquired from a financial institution with a long term credit rating in the highest generic rating category from at least two nationally recognized rating services.
5. All costs of issuance, including, without limitation, underwriters' discount, bond insurance premium, surety bond policy, rating agency fees, bond counsel and financial advisory fees shall be funded with proceeds of the bonds, notes, or other obligations.
6. None of the issues of bonds, notes, or other obligations shall be sold for less than 95% of par and the net effective interest rate on same, taking into account any discount or premium as well as the interest rate borne on same, will not exceed two percent (2%) above the highest average interest rate reported by the Daily Bond Buyer in its weekly "20 Bond Index" during the one month period next preceding the date of sale of same.

Notwithstanding the provisions hereof, any of the above-provisions of this Exhibit shall be considered modified if a written modification is approved by the Utility Official and 3 out of the 4 boards of directors of the following water authorities: (i) West Harris County Regional Water Authority, (ii) North Harris County Regional Water Authority, (iii) North Fort Bend Water Authority, (iv) Central Harris County Regional Water Authority. The Authority recognizes that if Houston is unable to obtain financing pursuant to the above-provisions of this Exhibit, or if Houston believes that a lower cost alternative to the above-provisions may be reasonably available, Houston will request that the Authority consider modification of one or more of the above-provisions pursuant to the procedure of the preceding sentence.

## Exhibit "B"

**Factor C = Houston's Untreated Water Facilities Outstanding Debt**

<u>Facility Component</u>	<u>Outstanding Debt</u>
1. Coastal Water Authority	\$254,187,160
2. Trinity River Authority Total Water Debt:	\$ 13,000,000
3. Costal Water Authority (Proposed Trinity/Lynchburg Upgrade)	\$ 40,385,000
4. Trinity River Authority – Current Lake Livingston	\$ 17,996,000
5. Allen's Creek Land Purchase	\$ 14,000,000
6. Lake Houston Dam/Reservoir Improvements	\$ 10,356,486
7. Wallisville Lake Project	\$ 10,580,707
8. Dayton Canal	\$ 5,150,000
<b>Total</b>	<b>\$365,655,353</b>

Note:

Items 1 through 8 represent actual Outstanding Debt.



Jimmie Schindewolf, P.E.  
*General Manager*

**BOARD OF DIRECTORS**  
James D. Pulliam, *President*  
Alan J. Rendl, *Vice President*  
Lenox A. Sigler, *Secretary*  
Kelly P. Fessler, *Treasurer*  
Ron Graham, *Asst. Secretary*

## MEMORANDUM

**TO:** Jon Polley  
**FROM:** Lisa Randecker  
**DATE:** February 5, 2013  
**SUBJECT:** FIRST AMENDMENT TO THE FIRST SUPPLEMENT TO WATER SUPPLY CONTRACT BETWEEN THE CITY OF HOUSTON, TEXAS, AND THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY

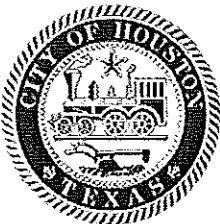
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Please find enclosed for your files one (1) fully executed duplicate original of the above referenced contract. I will retain a copy for the Authority contract files.

/lr

Enc.

Cc: Robin S. Bobbitt (w/copy of attachment)  
Tom Rolen, P.E. (w/copy of attachment)  
Cyndi Plunkett (w/copy of attachment)



# CITY OF HOUSTON

Public Works and Engineering Department

**Annise D. Parker**

Mayor

Daniel W. Krueger, P.E.  
Director  
P.O. Box 1562  
Houston, Texas 77251-1562

[www.houstontx.gov](http://www.houstontx.gov)

January 31, 2013

North Harris County Regional Water Authority  
c/o Jimmie Schindewolf  
General Manager  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068

**RE: The First Amendment to the First Supplement to Water Supply Contract between the City of Houston and the North Harris County Regional Water Authority; C73171 Ordinance No. 2013-0044**

Dear Mr. Schindewolf:

Please find enclosed an original, signed and executed contract for the above referenced agreement that was countersigned on January 22, 2013 by the City of Houston.

Should you have any questions or require additional information, please contact me at 832-395-3080 or e-mail [veronica.osegueda@houstontx.gov](mailto:veronica.osegueda@houstontx.gov).

Sincerely,

Veronica R. Osegueda  
Administration Manager  
Infrastructure Planning Branch  
Planning and Development Services Division

Enclosure

VO:fe

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073171  
2013-0044

**FIRST AMENDMENT TO THE FIRST SUPPLEMENT TO  
WATER SUPPLY CONTRACT BETWEEN THE CITY OF HOUSTON, TEXAS AND  
THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

**THE STATE OF TEXAS §**

§

**COUNTY OF HARRIS §**

**THIS FIRST AMENDMENT TO THE FIRST SUPPLEMENT TO WATER SUPPLY  
CONTRACT ("First Amendment") is made by and between the CITY OF HOUSTON, TEXAS  
("Houston"), a Home Rule City located principally in Harris County, and, AND THE NORTH  
HARRIS COUNTY REGIONAL WATER AUTHORITY, as a body politic and corporate under  
Article XVI, Section 59 of the Texas Constitution, ("Authority") (collectively the "Parties").**

**RECITALS:**

1. Pursuant to Ordinance No. 2002-1123 (December 16, 2002), Houston and the Authority entered into a Water Supply Agreement (the "Original Contract"). The Original Contract contemplated a cost-sharing arrangement for untreated water facilities and certain other facilities necessary to convey water to the Authority.
2. The Luce Bayou Interbasin Transfer Project (the "Project") is one of the untreated water facilities necessary to convey water to the Authority.
3. Pursuant to Ordinance 09-0052 (January 28, 2009), Houston and the Authority executed a First Supplement to Water Supply Contract ("First Supplement") to provide for the permitting, engineering, surveying, and right-of-way and site acquisition necessary for the Project ("Phase 1") and its construction ("Phase 2").
4. The First Supplement contemplated that Houston would cause Coastal Water Authority ("CWA") to issue bonds to the Texas Water Development Board ("TWDB") through the Water Infrastructure Fund ("WIF") Program for certain Phase 1 costs, and that all funds

obtained by CWA for Phase 1 would be structured so Annual Outstanding Debt Service (as defined in the First Supplement) would not be due before January 1, 2018 (“Debt Structure Requirement”).

5. As contemplated by the First Supplement, CWA issued \$28,000,000 in bonds to the TWDB in 2009 through the WIF Program to pay for Phase 1.
6. CWA issued an additional \$5,150,000 in bonds to the TWDB in 2010 through the WIF Program, but will need additional funds to complete the design and permitting of the Project.
7. CWA anticipates that completion of Phase 1 may require an estimated additional \$6,000,000.
8. Pursuant to Section 2 of the First Supplement, Houston is causing CWA to seek funding in amounts sufficient to complete Phase 1.
9. CWA intends to enter into a Master Agreement with TWDB for its participation in the Project in an amount not to exceed \$29,000,000, through the State Participation Fund, which CWA must obtain before April 1, 2013 (“2013 Funding”).
10. The Parties desire to amend the First Supplement: (A) so Houston may arrange for CWA to obtain the 2013 Funding to complete Phase 1 of the Project and begin Phase 2, without violating (i) the Debt Structure Requirement in Sections 6 of the First Supplement or (ii) the last paragraph of Section 7 of the First Supplement; and (B) to address other matters related to the 2013 Funding.
11. The Parties agree that the payments that CWA must make to TWBD under the Master Agreement are considered “other obligations”, as referenced in Section 5A of the First Supplement.

12. Because the majority of the proceeds of the 2013 Funding will be spent on Phase 2, Houston and the Authority agree that for all purposes under the First Supplement, the 2013 Funding shall be deemed to have been issued to finance the costs of Phase 2.

NOW, THEREFORE, the City and Authority agree as follows:

## ARTICLE I.

The recitals above are true and correct and are incorporated into this First Amendment by reference.

## ARTICLE II.

Section 1. Section 1 of the First Supplement is amended to include the language below in the alphabetical order apparent in Section 1:

"2013 Funding" is defined in the recitals of this First Amendment.

"Unamortized Closing Costs" are those issuance costs that (i) are related to 2013 Funding, (ii) CWA applied for and is obligated to pay, including attorneys' fees and financial advisors' fees, and (iii) the TWDB will not allow CWA to pay for out of the proceeds of the 2013 Funding. Unamortized Closing Costs include the administrative fee charged under 31 T.A.C. § 363.1017 that will be due to the TWDB upon CWA's closing of the 2013 Funding.

Section 2. Section 2 of the First Supplement is amended to include the following sentence at the end of Section 2:

Houston shall cause CWA to use its best efforts to obtain the 2013 Funding in the maximum amount of funds and most favorable financing terms available.

Section 3. The following portion of the First Paragraph of Section 6 of the First Supplement is amended to read as follows (all portions of Section 6 not included below remain unchanged):

Calculation and Administration of Phase 1 Annual New Untreated Water Facilities Payments. Notwithstanding any provision of this First Supplement, Houston shall cause the bonds, notes, or other obligations issued by CWA or Houston to finance Phase 1 to be structured such that there is no Annual Outstanding Debt Service for Phase 1 until after September 1, 2013. All of the Annual Outstanding Debt Service due under the 2013 Funding that is associated with Phase 1 costs will be deemed to be part of the Annual Outstanding Debt Service for Phase 2 (instead of being part of the Annual Outstanding Debt Service for Phase 1).

**Section 4.** A new Section 5B is included after Section 5A of the First Supplement and reads as follows:

**Section 5B. Formula for Unamortized Closing Costs.** The Authority shall pay Houston for Unamortized Closing Costs related to the 2013 Funding based on the following formula:

Authority's Share of Unamortized Closing Costs = (D/E) H

Where: "D" is the same amount in MGD as "D" provided in Subsection 5(2) of the First Supplement.

"E" is the total amount of untreated surface water (in MGD) sold to Houston's water customers during Houston's fiscal year ending June 30, 2012, including such untreated surface water received at Houston's water treatment plants as well as the billable quantity (including any take-or-pay amounts) taken by Houston's untreated surface water customers, but excluding untreated surface water loss by evaporation or leakage.

"H" is a dollar amount equal to the total Unamortized Closing Costs.

**Section 5.** The following portion of the First Paragraph of Section 7 of the First Supplement is amended to read as follows (all portions of Section 7 not included below remain unchanged):

Calculation and Administration of Phase 2 Annual New Untreated Water Facilities Payments. Notwithstanding any provision of this First Supplement, Houston shall use its best efforts to cause the bonds, notes, or other obligations issued by CWA or Houston to finance Phase 2 to be structured such that there is no Annual Outstanding Debt Service for Phase 2 until after January 1, 2018. However, Annual Outstanding Debt Service due pursuant to the 2013 Funding that is associated with Phase 1 or Phase 2 costs, other than Unamortized Closing Costs, shall be included as part of the Annual Outstanding Debt Service for Phase 2 beginning on or after January 1, 2015.

**Section 6.** A new Section 7A is included after Section 7 of the First Supplement and reads as follows:

Administration of Unamortized Closing Costs. No later than April 1, 2013, Houston shall invoice the Authority for the Authority's Share of Unamortized Closing Costs based on the formula set forth in Section 5B. The Authority shall pay such invoice within 35 days of receipt in accordance with the wiring instructions provided by Houston in such invoice.

**Section 7.** The last Paragraph of Section 7 of the First Supplement is hereby deleted from the First Supplement.

**Section 8.** The last sentence of Section 13 of the First Supplement is amended to read as follows (all portions of Section 13 not included below remain unchanged):

Although CWA is the Project Manager and may issue bonds, notes, or other obligations for the Project (and although after the closing of the 2013 Funding, an entity other than CWA may from time to time own an interest in the Project), Houston shall at all times be obligated to provide the Authority with the Authority's Water Demand Allocation (including its Untreated Water Facilities Demand Allocation) pursuant to the Contract and this First Supplement.

### **ARTICLE III.**

Except as modified herein, the Original Contract as amended by the First Supplement will remain in full force and effect. In the event of a conflict between the Original Contract (as modified by the First Supplement) and this First Amendment, this First Amendment will prevail. The effective date of this First Amendment is the date that this First Amendment is countersigned by the Houston Controller, as indicated below.

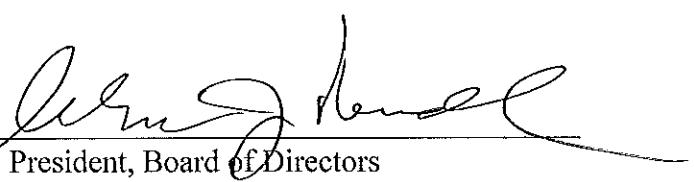
### **ARTICLE IV.**

The Parties hereto have executed this First Amendment in multiple copies, each of which shall be an original.

[signature pages follow]

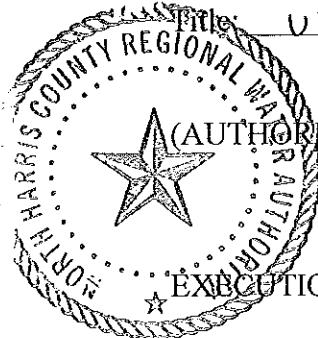
NORTH HARRIS COUNTY REGIONAL WATER  
AUTHORITY

By:

  
President, Board of Directors

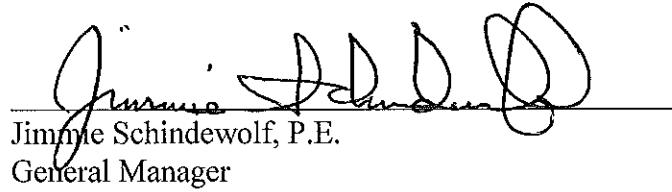
ATTEST:

By: Lenox A. Sigler  
Name: Lenox A. Sigler  
Title: Vice President



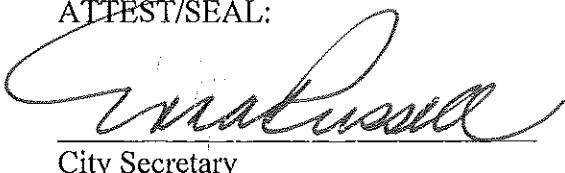
EXECDUTION DATE: 12/28/12

APPROVED:

  
Jimmie Schindewolf, P.E.  
General Manager

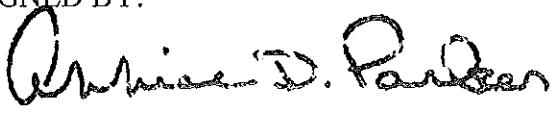
CITY OF HOUSTON, TEXAS

ATTEST/SEAL:

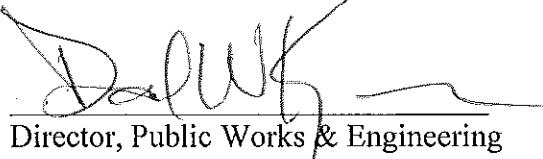
  
Eva Russell

City Secretary

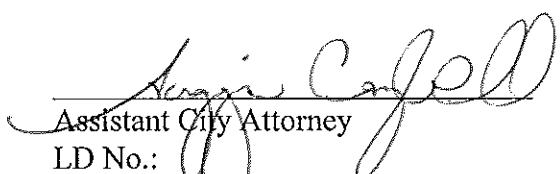
SIGNED BY:

  
Annise D. Parker  
Mayor 

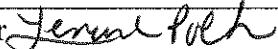
APPROVED BY:

  
Dan W. Kuehl  
Director, Public Works & Engineering  
Department  


APPROVED AS TO FORM BY:

  
Angie Caffell  
Assistant City Attorney  
LD No.:  
0812001#7001

COUNTERSIGNED BY:

  
Ronald C. Shew  
City Controller 

DATE COUNTERSIGNED:

1-22-13

## **CERTIFICATE FOR RESOLUTION**

**THE STATE OF TEXAS**

**COUNTY OF HARRIS**

NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY

I, the undersigned Secretary of the Board of Directors (the "Board") of North Harris County Regional Water Authority (the "Authority"), hereby certify as follows:

1. The Board convened in regular session, open to the public, on the 4<sup>th</sup> day of November, 2013, at the regular meeting place thereof, and the roll was called of the members of the Board, to-wit:

James D. Pulliam	President/Investment Officer
Alan J. Rendl	Vice President
Lenox A. Sigler	Secretary
Kelly P. Fessler	Treasurer
Ron Graham	Assistant Secretary

All members of the Board were present, thus constituting a quorum. Whereupon, among other business, the following was transacted at such meeting:

**RESOLUTION ADOPTING  
AMENDED EFFLUENT REUSE AND OTHER ALTERNATIVE WATER USE  
INCENTIVE PROGRAM**

was duly introduced for the consideration of the Board. It was then duly moved and seconded that such Resolution be adopted; and, after due discussion, such motion, carrying with it the adoption of said Resolution, prevailed and carried by the following vote:

AYES: 5

NOES: 0

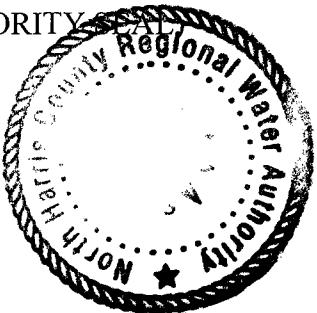
2. A true, full, and correct copy of the aforesaid Resolution adopted at the meeting described in the above and foregoing paragraph is attached to and follows this Certificate; such Resolution has been duly recorded in said Board's minutes of such meeting; the above and foregoing paragraph is a true, full, and correct excerpt from the Board's minutes of such meeting pertaining to the adoption of such Resolution; the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of the Board as indicated therein; each of the officers and members of the Board was duly and sufficiently notified officially and personally, in advance of the time, place, and purpose of such meeting and that such Resolution would be introduced and considered for adoption at such meeting and each of such officers and members consented, in advance, to the holding of such meeting for such purpose; such meeting was open to the public, as required by law, and public notice of the time,

place and purpose of such meeting was given as required by Chapter 551, Texas Government Code, as amended, and Section 49.063, Texas Water Code, as amended.

SIGNED AND SEALED the 4<sup>th</sup> day of November, 2013.

*Lenny P. Siegle*  
Secretary, Board of Directors

(AUTHORITY)



**RESOLUTION ADOPTING  
AMENDED EFFLUENT REUSE AND OTHER ALTERNATIVE WATER USE  
INCENTIVE PROGRAM**

WHEREAS, the North Harris County Regional Water Authority (the "Authority") is a regional water authority created pursuant to House Bill 2965 of the 76<sup>th</sup> Legislature, as amended (the "Act"), and Article XVI, Section 59 of the Texas Constitution; and

WHEREAS, the Authority was created to, among other things, accomplish the purposes of Article XVI, Section 59 of the Texas Constitution, including the reduction of groundwater withdrawals, the conservation, preservation, protection, recharge and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and the control of subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions; and

WHEREAS, the Act provides that the Authority may establish fees, rates and charges and classifications of fee and rate payers, as necessary, to enable the Authority to fulfill the Authority's purposes and regulatory obligations and such fee, rates and charges must be sufficient to achieve water conservation, prevent waste of water, serve as a disincentive to pumping groundwater, and accomplish the purposes of the Act, including making available alternative water supplies, and to enable the Authority to meet operation and maintenance expenses and pay the principal of and interest on debt issued in connection with the exercise of the Authority's general powers and duties; and

WHEREAS, the Act authorizes the Authority to specify the rates, terms and conditions under which sources of water other than groundwater will be provided by the Authority, which may be changed from time to time as deemed necessary by the Authority, and to enter into contracts with persons, including political subdivisions of the state, on terms and conditions the Authority considers desirable, fair and advantageous for the performance of its rights, power, and authority under the Act and requires the Authority to adopt and enforce rules reasonably required to implement the Act; and

WHEREAS, the Authority has established the Cost of Water, as such term is defined in the Authority's Rate Order pursuant to Section 4.03 of the Act, whereby it charges ratepayers an amount of money per 1,000 gallons for (i) groundwater produced by certain wells located within the Authority's boundaries, (ii) water produced outside and imported into the Authority's boundaries, and (iii) water received from the Authority (collectively, the "Authority Fees"); and

WHEREAS, the Authority has determined that encouraging the metered use of an Alternative Water Supply, as such term is defined in the Harris-Galveston Subsidence District's (the "HGSD") then-current Regulatory Plan, other than such water supplied by the Authority, such as wastewater treatment plant effluent, captured stormwater, desalinated water, etc., ("Alternative Water Use") by adopting this Amended Alternative Water Use Incentive Program (the "Program") set forth in this Resolution is beneficial and necessary to cause the reduction of groundwater withdrawals and the conservation, preservation, protection, and recharge of groundwater reservoirs.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY THAT:

Section 1. The recitals and facts set forth above are hereby found to be true and correct and are incorporated by reference as though fully set forth herein.

Section 2. The Authority may enter into a written contract ("Contract") with the owner of a source of alternative water ("Owner") and a person engaging in Alternative Water Use ("Purchaser") to provide, among other terms, that:

- (i) The Authority will issue credits against Authority Fees otherwise owed to the Authority ("Alternative Water Use Credits") to the Owner and/or Purchaser (collectively, the "Parties") in the amount of \$25,000 or 10% of the capital cost of an Alternative Water Use system (a "System"), whichever is greater, upon the occurrence of all of the following events:
  - a. the Authority and the Parties execute a Contract;
  - b. the Authority reviews and approves the System's capital cost, including engineering fees, construction cost and interest, if any, (the "Capital Cost") based on certification of same provided to the Authority by the Parties; and
  - c. the Authority receives certification from the Parties that the System is complete and operating.

Thereafter, the Authority will issue Alternative Water Use Credits in an amount equal to \$0.75 per 1,000 gallons of Alternative Water Use;

- (ii) The total Alternative Water Use Credits issued in relation to a particular System may not exceed the Capital Cost of that System;
- (iii) The Authority will apportion the award of Alternative Water Use Credits among the Parties according to instructions agreed upon and provided to the Authority by the Parties. Alternative Water Use Credits shall be applied against Authority Fees after the Authority has applied any and all other credits for which a Party may be eligible (e.g., chloramination credits). In the event the total amount of credits to be issued to a Party during any period exceed the Authority Fees owed for that period, such unused credits shall apply to subsequent periods until either the full amount of Alternative Water Use Credits issued have been applied or the 20<sup>th</sup> anniversary of the Contract, whichever occurs first;
- (iv) The Parties shall operate and maintain the System in a manner such that Alternative Water Use in the System complies with the definition of Alternative Water Supply, as defined by the HGSD, for 20 years from the date on which the Authority first (1<sup>st</sup>) issues Alternative Water Use Credits for such System. In the event the System does not operate as such for 20 years, each Party shall pay to the Authority an amount equal to:

A – (B x (A/20)), where

A = the Capital Cost approved by the Authority; and

B = the number of years the Parties operated the System in accordance with this subsection.

- (v) All Harris-Galveston Subsidence District groundwater credits associated with the System, whether issued before or after the existence of the Contract, shall be transferred to the Authority for the benefit of the Authority's Groundwater Reduction Plan; and
- (vi) Such other terms the Authority deems necessary or convenient to the implementation of this Program, including without limitation, provisions related to parameters for acceptable meters and the maintenance, reading and certification thereof.

Section 3. Notwithstanding any provision hereof, the Authority reserves the right to:

- (i) refrain from entering into a Contract for any reason whatsoever;
- (ii) include any terms or provisions in a Contract that are mutually acceptable to a Party and the Authority; and
- (iii) modify or terminate this Program at any time, except that a Contract executed by a Party and the Authority will not be modified or terminated without the mutual agreement of all parties thereto.

Section 4. The Authority's General Manager, or his designee, (the "General Manager") shall perform such other duties as necessary to implement the intent of this Program, including without limitation, more specifically defining the requirements related to the certification required under Section 2(i)(b) hereof, reviewing and approving all such certifications to ensure that the Authority receives all information the General Manager deems necessary to implement this Program, and requiring additional information or documentation not otherwise referenced herein.

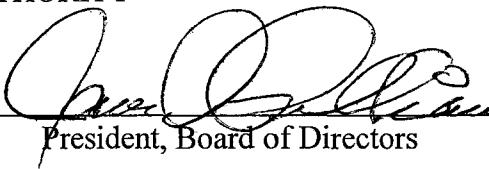
Section 5. Upon the adoption of this Resolution Adopting Amended Effluent Reuse and Other Alternative Water Use Incentive Program, all resolutions adopting any predecessor program, including the Resolution Adopting Water Conservation Reuse Incentive Program, dated April 6, 2009, shall be void.

[signature pages follow]

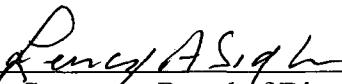
PASSED AND APPROVED this 4<sup>th</sup> day of November, 2013.

NORTH HARRIS COUNTY REGIONAL WATER  
AUTHORITY

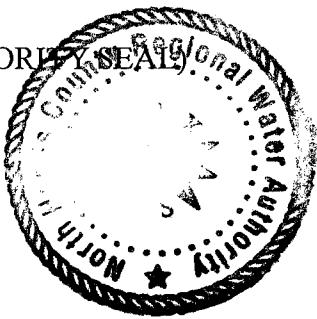
By:

  
President, Board of Directors

ATTEST:

By:   
Secretary, Board of Directors

(AUTHORITY SEAL)





# Water Conservation Plan

Adopted November 4, 2013

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## **North Harris County Regional Water Authority**

### **Water Conservation Plan**

#### **Overview**

The North Harris County Regional Water Authority (the "Authority") was created in 1999 pursuant to Article 16, Section 59 of the Texas Constitution by the passage of House Bill 2965 by the 75th Texas Legislature. The voters of the Authority confirmed its creation and elected the initial Board of Directors at an election held on January 15, 2000. The Authority is bounded by US 290 on the west, the Harris County line on the north (Spring Creek), Cypress Creek Parkway and Bammel-North Houston on the south, and Lake Houston on the east. The Authority covers approximately 339 square miles and currently includes approximately 644,000 residents. The Authority is empowered to secure a long-term, reliable, and quality alternative water supply for the well owners within its boundaries permitted to pump five (5) or more million gallons of groundwater annually. The Authority's primary purpose is to develop and implement a strategy for complying with the Harris-Galveston Subsidence District's Regulatory Plan which requires a reduction in groundwater usage to no more than 20 percent of total water demand in the year 2035.

Several factors contribute to the desirability of establishing this Water Conservation Plan (the "Plan"). The primary driving factor being a statutory, regulatory, and contractual obligation as a water system which purchases treated surface water from the City of Houston. The Authority is the mid-level wholesaler in a water supply chain which starts with the City of Houston treating surface water, the Authority purchasing that water, and then selling it to a number of retail water utilities within its boundaries.

#### **Purpose**

The purpose of this Plan is to identify and establish principles, practices, and standards to effectively conserve and efficiently use available water supplies and water distribution system capacity.

#### **Location**

The Authority is bounded, as shown in Exhibit 1, by US 290 on the west, the Harris County line on the north (Spring Creek), Cypress Creek Parkway and Bammel-North Houston on the south, and Lake Houston on the east. The Authority covers approximately 339 square miles and includes approximately 644,000 residents. The Authority operates a wholesale water system supplying water to multiple public water systems within its boundaries. The Authority provides no wastewater collection or treatment.

#### **Customer Data**

A full description of the Authority's customer information can be found in Appendix B, the Water Utility Profile. A summary of the information is as follows:

##### Population and Service Area Data

- The Authority encompasses 339 square miles.
- The December 2010 census population for the Authority was approximately 601,000 persons.

- The Authority provides wholesale water supply to multiple public water systems within the Authority boundary.
- The Authority expects growth at a rate of about 2.3% per year through 2020 and then less than 1% per year thereafter.

#### Active Connections

- The Authority meters all of its connections to its customers, which in turn currently serve approximately 89,750 total connections.
- All of the Authority's 55 wholesale connections have been added over the last four years.

#### High Volume Customers

- The Authority serves no direct retail connections.

#### **Water Use Data**

A full description of the Authority's water use information can be found in Appendix B, the Water Utility Profile. A summary is as follows:

#### Water Accounting Data

- In the years 2010 to 2013, the Authority has produced or purchased an average of approximately 737.412 million gallons ("MG") per month for use within its boundaries.
- In Calendar year 2012, the Authority sold a total of approximately 9,320.5 MG and transferred an additional 509 MG to the Central Harris County Regional Water Authority.
- The Authority has taken steps to account for as much water as possible through accurate metering, leak detection, and repair programs. The Authority provides only wholesale water which is only part of the actual water used by most of the purchasing public water systems; most of the Authority's customers own and operate additional water production facilities which they use to meet their total demand. During 2012, based on the total water delivered by the Authority to its customers, the Authority provided an average of approximately 94.5 gallons per capita per day (GPCD).

#### Projected Water Demands

- The Authority is able currently to receive and deliver 31 MGD of surface water and provide an additional 4 MGD from its wells. By 2025, the Authority projects to receive a daily average of approximately 72.5 MGD of surface water from the City.

#### **Water Supply System**

A full description of the Authority's water supply information can be found in Appendix B, the Water Utility Profile.

## Water Supply Sources

- The Authority's water system consists of three wells and a wholesale purchase connection from the City of Houston. The purchased surface water is delivered to two ground storage tanks (20 MG total) at the Spears Road Regional Pump Station (the "Spears Road RPS"). Five service pumps, rated at a total of 76.32 MGD, take water from the ground storage tanks and discharge to the transmission system. Three wells (4.0 MGD total) supply water to two ground storage tanks (6 MG total) at the Louetta Regional Water Plant. Water is also received from the transmission system. Four service pumps, rated at a total of 28.8 MGD, take water from the storage tanks and discharge to the transmission system. A schematic of the system is provided in Exhibit 2.

## **Wastewater Utility System**

The Authority provides no wastewater collection or treatment.

## **Conservation Rates**

The Authority has adopted water rates which provide an incentive to use surface water and promote conservation of groundwater. Section 5.12(b) of the Authority's Rate Order requires each of the Authority's customers to implement a water conservation plan that satisfies 30 TAC § 288.2(a). The Authority's wholesale water rates are listed in the table below.

<b>Source of Water</b>	<b>Fee Due to NHCRWA</b>
Authority Water	\$2.20 per 1,000 gallons
Water pumped from a Non-Exempt Well	\$1.75 per 1,000 gallons
Imported Water	\$1.75 per 1,000 gallons

## **Water Conservation Goals**

The Authority has set five-year and ten-year targets of 140 GPCD for 2020 and 140 GPCD for 2025. The Authority's targets are primarily driven by the targets of the City of Houston. The City of Houston has set a target of 140 GPCD for 2020. The state wide goal as established by the Water Conservation Implementation Task Force is an average of 140 GPCD.

## **Water Conservation Plan Elements – Best Management Plans (BMPs) and Other Programs**

### Record Management Program

- To track the effectiveness of the instituted BMPs, the Authority's Program Manager and Operator will compile the necessary metering data so that ongoing water usage can be compared to historical usage.

### Metering Devices

- Each well, purchase point and wholesale distribution point is metered to measure and account for the amount of water produced from the source of supply, purchase or wholesale delivery.

- The Authority is committed to a comprehensive metering program. This includes a program to test, repair, and periodically replace water meters as needed. The Authority's goal for meter accuracy is to obtain consistent readings within plus or minus five percent (5%). The Authority maintains a program to identify meters which may be functioning outside those parameters and takes steps to insure accuracy on an ongoing basis.

#### Measures to Determine and Control Unaccounted Water

- The Authority is committed to measures to determine and control unaccounted uses of water through periodic visual inspections along distribution lines, ongoing audits of the water system to determine illegal connections, abandoned services, etc.

#### Leak Detection and Repair

- The Authority is committed to a program of leak detection and repair. Operators for the water system are instructed to address reports of leaks in a manner to limit the loss of un-billable water.

#### Reservoir System Operating Plan

- The Authority does not own or operate any reservoirs.

#### Education Programs

- Media Campaign -

The Authority publishes a newsletter, WATERLINES, which contains messages about water conservation. The newsletter has been delivered at least annually to approximately 150,000+ homes since 2000. The Authority has also published and distributed to the retail water suppliers approximately 150,000 bill stuffers (i.e. storm water runoff pollution) and 160,000 brochures (i.e. water efficiency tips) each year. The Authority maintains websites at <http://www.nhcrwa.com> and <http://www.stopthedrop.org> that focus on water conservation messages and information.

- School Programs -

The Authority is a committed partner with area water agencies, water industry consultants (legal and engineering firms) and municipal utility districts to bring major, interactive water conservation education programs to local schools. LEARNING FROM OUR PAST TO INFLUENCE OUR FUTURE is presented at the 2<sup>nd</sup>, 4<sup>th</sup> and 7<sup>th</sup> grade levels and utilizes Texas History to demonstrate the importance of adequate water supplies to the state's past, present and future. The materials include a wide range of classroom materials and follow-up activities that are aligned with the Texas Essential Knowledge and Skills (TEKS) guidelines for science and social studies. This water centric program, now also available electronically on DVDs, reaches more than 7,000 2<sup>nd</sup> and 4<sup>th</sup> grade students within the Authority's boundaries each school year. Additionally, the Authority operates two Mobile Teaching Labs with hands-on exhibits about water and water conservation that travel to local elementary schools, visited by approximately 10,000 students during a school year.

### Water Rate Structure

- The Authority has adopted a rate schedule that promotes conservation of groundwater and provides for a flat rate of wholesale water to its customers to supplement the use of groundwater.

### Water Reuse

- In April 2009, the Authority Board passed a resolution adopting its Water Conservation Reuse Incentive Program (the "Reuse Program"). The Reuse Program gives participating water systems \$0.50 credit for every 1,000 gallons of reuse used on monthly fees owed the Authority for surface water used and groundwater pumped. The credit continues until one of these conditions is met: (1) five years of credits are given, or (2) the total amount of the credits issued equals the cost of the infrastructure constructed to allow the reuse. As part of the agreement authorizing the credit, the water system agrees to continue operation of the infrastructure and use of reuse through at least the estimated useful life of the infrastructure.
- Interest in the Reuse Program continues to grow and the Authority is currently reviewing possible revisions to the Reuse Program to increase participation and by so doing increase reuse.

### **Regional Water Planning and Coordination**

The Authority is located within the Region H Water Planning Area. The Authority, through its representatives, is in continuous contact with the Region H Water Planning Group during each five (5) year planning cycle of the Region H Water Plan. In accordance with the Texas Administrative Code, Section 288.5 (l) (3), the Authority will review and update its Plan every five (5) years to coincide with the adoption of each Region H Water Plan. The Authority will submit a copy of the Plan to Region H.

### **Submittal**

The Authority will submit a copy of this Plan and any revised versions of the Plan to the Executive Director, Texas Commission on Environmental Quality (the "TCEQ") and the Executive Administrator, Texas Water Development Board. The City of Houston will also be provided a copy of this Plan.

### **Authority and Adoption**

The Board of Directors of the Authority adopted this Water Conservation Plan by Resolution on November 4, 2013. A copy of the Resolution is included as Appendix A of this Plan. The Authority's General Manager, or his designee, is authorized by the Board to implement and enforce this Plan.

### **Successive Customer Conservation**

Section 5.12 (b) of the Authority's Rate Order requires (1) any water system which receives water from the Authority to have a water conservation plan and (2) any water system receiving water from the Authority which intends to sell a portion of that water to a wholesale customer shall require the wholesale

customer to also implement a water conservation plan. The water conservation plan shall be in compliance with all applicable rules of the TCEQ.

In addition, in accordance with Texas Administrative Code, 288.5(1)(F), every water supply contract entered into or renewed by the Authority, including contract extensions, will require that each successive wholesale customer develops and implements a Water Conservation Plan or water conservation measures using applicable elements of Chapter 288, Texas Administrative Code. If the customer intends to resell the water, then any contracts for such reselling must require all downstream customers to have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with applicable provisions of Chapter 288, Texas Administrative Code.

**Appendix A**

**Resolution Adopting Water Conservation Plan**

## CERTIFICATE FOR RESOLUTION

THE STATE OF TEXAS

COUNTY OF HARRIS

**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**

I, the undersigned Secretary of the Board of Directors (the "Board") of North Harris County Regional Water Authority (the "Authority"), hereby certify as follows:

1. The Board convened in regular session, open to the public, on the 4<sup>th</sup> day of November, 2013, at the regular meeting place thereof, and the roll was called of the members of the Board, to-wit:

James D. Pulliam	President/Investment Officer
Alan J. Rendl	Vice President
Lenox A. Sigler	Secretary
Kelly P. Fessler	Treasurer
Ron Graham	Assistant Secretary

All members of the Board were present, thus constituting a quorum. Whereupon, among other business, the following was transacted at such meeting:

## **RESOLUTION ADOPTING UPDATED WATER CONSERVATION PLAN**

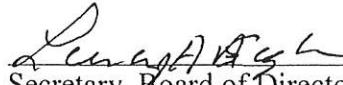
was duly introduced for the consideration of the Board. It was then duly moved and seconded that such Resolution be adopted; and, after due discussion, such motion, carrying with it the adoption of said Resolution, prevailed and carried by the following vote:

AYES: 5 NOES: 0

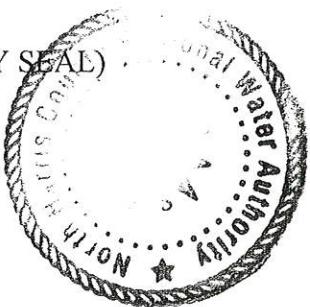
2. A true, full, and correct copy of the aforesaid Resolution adopted at the meeting described in the above and foregoing paragraph is attached to and follows this Certificate; such Resolution has been duly recorded in said Board's minutes of such meeting; the above and foregoing paragraph is a true, full, and correct excerpt from the Board's minutes of such meeting pertaining to the adoption of such Resolution; the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of the Board as indicated therein; each of the officers and members of the Board was duly and sufficiently notified officially and personally, in advance of the time, place, and purpose of such meeting and that such Resolution would be introduced and considered for adoption at such meeting and each of such officers and members consented, in advance, to the holding of such meeting for such purpose; such meeting was open to the public, as required by law, and public notice of the time,

place and purpose of such meeting was given as required by Chapter 551, Texas Government Code, as amended, and Section 49.063, Texas Water Code, as amended.

SIGNED AND SEALED the 4<sup>th</sup> day of November, 2013.

  
\_\_\_\_\_  
Secretary, Board of Directors

(AUTHORITY SEAL)



## RESOLUTION ADOPTING UPDATED WATER CONSERVATION PLAN

WHEREAS, the North Harris County Regional Water Authority (the "Authority") is a regional water authority created pursuant to House Bill 2965 of the 76<sup>th</sup> Legislature, as amended (the "Act"), and Article XVI, Section 59 of the Texas Constitution; and

WHEREAS, the Authority was created to, among other things, accomplish the purposes of Article XVI, Section 59 of the Texas Constitution, including the reduction of groundwater withdrawals, the conservation, preservation, protection, recharge and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and the control of subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions; and

WHEREAS, the Board of Directors (the "Board") of the Authority previously approved, implemented and submitted to the Texas Water Development Board (the "TWDB") a Water Conservation dated May 2002; and

WHEREAS, the Board of the Authority has carefully considered the current water conditions in the Authority and area-wide and has determined that adoption of an Updated Water Conservation Plan (the "Plan") is necessary to identify and establish principles, practices and standards to effectively conserve and efficiently use available water supplies and water distribution system capacity; and

WHEREAS, the Board of the Authority desires to evidence its approval of the Plan and to adopt the Plan as the official policy of the Authority.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY THAT:

Section 1. Findings. The recitals and facts set forth above are hereby found to be true and correct and are incorporated by reference as though fully set forth herein.

Section 2. Approval of the Plan. The Board of the Authority hereby approves and adopts the Plan as set forth in this Resolution, and the provisions of the Plan shall be implemented immediately and enforced as rules of the Authority.

Section 3. Declaration of Policy, Purpose and Intent. The purpose of the Plan is to promote the efficient and responsible use of water by (1) implementing structural programs that result in quantifiable water conservation results; (2) developing, maintaining and enforcing water conservation policies; and (3) supporting public education programs that educate customers about water and wastewater facilities operations, water quantity and quality, water conservation and non-point source protection.

Section 4. Service Area. The service area of the Authority covers approximately 339 square miles and is reflected on Exhibit 1 of the Plan. Customer profile data for the Authority, including customer data and water use data is included in the Water Utility Profile included as Appendix B to the Plan. Such Appendix B shall hereafter be updated at least once every five (5) years.

Section 5. Five-year and Ten-year Targets. The Authority shall use reasonable efforts to reduce water loss and municipal use of water. In doing so, the Authority has identified the following goals for water savings:

- A. Five-year Target — by December 31, 2020, the Authority shall attempt to reduce the average daily municipal use of water in the Authority's service area to 140 gallons per capita per day ("GPCD") and to keep the unaccounted water in the system below 5% annually.
- B. Ten-year Target — by December 31, 2025, the Authority shall attempt to continue to maintain the average daily municipal use of water in the Authority's service area at 140 GPCD and to keep the unaccounted water in the system below 5% annually.

Notwithstanding the targets identified above, the Authority shall not be obligated to achieve any water savings in its service area, and the Authority's failure to do so shall not subject the Authority to any liability whatsoever.

Section 6. Metering Devices. The Authority shall meter all water delivered by the Authority, and all such metering devices will be calibrated regularly to ensure reasonable accuracy.

Section 7. Unaccounted Water Usage. The Authority authorizes the Authority's General Manager, Program Manager and Operator to implement any reasonable program to determine unaccounted-for uses of water and to make recommendations to the Authority regarding measures to control such unaccounted-for uses of water. Such measures may include periodic visual inspections along distribution lines, annual or monthly audits of the water system to determine illegal connections, and investigation of abandoned services. The Authority's Operator shall also continue the existing programs of leak detection, repair, and water loss accounting for the water storage, delivery, and transmission system in order to control unaccounted-for uses of water.

Section 8. Continuing Public Education and Information. The Authority has previously implemented extensive public education programs and media efforts to provide information about water conservation and the importance of having an adequate water supply. The Authority intends to continue such efforts and promote the Plan with the general public, which may include any of the following:

- A. Publication of articles in local newspapers and newsletters of general circulation in the Authority's service area, provide information regarding water conservation; and
- B. Direct distributions to customers of the Authority of educational and informational material (e.g., brochures and billing inserts) regarding water conservation; and
- C. Additional educational activities consisting of (i) conducting informational school programs in schools located within the Authority's service area; (ii) conducting educational programs for residents within the Authority's service area;

(iii) conducting or engaging in such other informational or educational activity designed to further water conservation measures as may be determined by the Board and consistent with the purposes and policies of this Plan; or (iv) any combination of the foregoing.

Section 9. Cost-based Rate Structure. The Authority hereby acknowledges that it has adopted a flat water rate structure, as reflected in its Rate Order, that is intended to encourage use of water from the Authority and conserve groundwater to mitigate subsidence.

Section 10. Reservoir Systems Operations Plan. The Authority does not own any reservoirs within a common watershed or river basin and is not required to establish a reservoir systems operation plan.

Section 11. Implementation and Enforcement. Without limitation to specific actions stated in the Plan to be taken by the Authority's General Manager, the Program Manager and Operator will assist the Authority as directed in administering and enforcing the Plan, and overseeing the execution and implementation of all elements of the Plan. The Authority shall ensure adequate records for Plan verification are kept. The Authority's General Manager shall report to the Board regarding actions taken and which need to be taken under the Plan.

Section 12. Record Management. The Board authorizes the Authority's General Manager, with the input and assistance of the Program Manager and Operator, to establish a record management system to record water pumped, water delivery, water sales, and water losses.

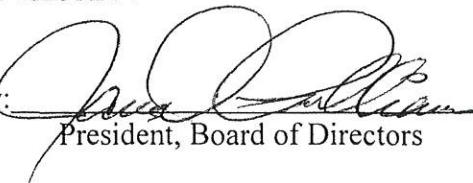
Section 13. Wholesale Water Customers. The Authority shall require that each successive wholesale customer of the Authority, develop and implement a water conservation plan or water conservation measures in compliance with all applicable rules of the Texas Commission on Environmental Quality (the "TCEQ"). This requirement will also extend to each successive wholesale customer in the resale of water.

Section 14. Submission. The Authority shall submit a copy of the Plan to the Executive Director of the TCEQ, the Executive Administrator of the TWDB and to the appropriate officer/utility official of the City of Houston.

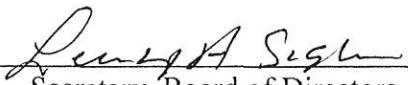
Section 15. Five (5) Year Review. The Authority shall review and update the Plan by November 2018 and every five (5) years thereafter, or more frequently, as may be appropriate, based on an assessment of previous five (5) year and ten (10) year targets and any other new or updated information.

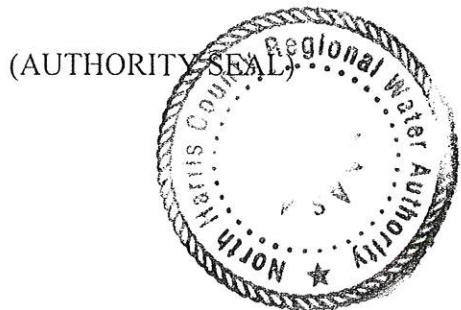
PASSED AND APPROVED this 4<sup>th</sup> day of November, 2013.

NORTH HARRIS COUNTY REGIONAL WATER  
AUTHORITY

By:   
President, Board of Directors

ATTEST:

By:   
Secretary, Board of Directors



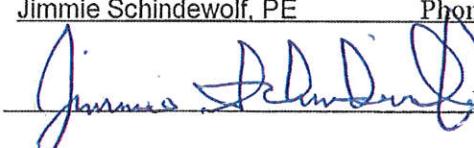
**Appendix B**  
**Water Utility Profile**



## Texas Commission on Environmental Quality

### PROFILE AND WATER CONSERVATION PLAN REQUIREMENTS FOR WHOLESALE PUBLIC WATER SUPPLIERS

This form is provided to assist wholesale public water suppliers in water conservation plan development. If you need assistance in completing this form or in developing your plan, please contact the conservation staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Name: North Harris County Regional Water Authority  
Address: 3648 Cypress Creek Pkwy., Suite 110, Houston, Texas 77068  
Telephone Number: (281) 440-3924 Fax: (281) 440-4104  
Water Right No. (s): None  
Regional Water Planning Group: H  
Form Completed by: Anthony E. Bennett, RS  
Title Associate, The Cadmus Group, INC.  
Person implementing conservation program: Jimmie Schindewolf, PE Phone: (281) 440-3924  
Signature:  Date: 11/4/13

**NOTE:** If the plan does not provide information for each requirement, include an explanation of why the requirement is not applicable.

#### PROFILE

## I. WHOLESALE SERVICE AREA POPULATION AND CUSTOMER DATA

### A. Population and Service Area Data

1. Service area size (in square miles): 339  
(Please attach a copy of service-area map)
2. Current population of service area: 644,000

3. Current population served for
- Water 279,629
  - Wastewater None
4. Population served for previous five years:
5. Projected population for service area in the following decades.

<u>Year</u>	<u>Population</u>	<u>Year</u>	<u>Population</u>
2010	234,723	2020	757,000
2011	261,046	2030	808,000
2012	270,178	2040	850,000
2013	279,629	2050	885,000
		2060	917,000

6. List source or method for the calculation of current and projected population size.

Population estimate from a study conducted by the Harris-Galveston Subsidence District. While the 2020-2060 projected population shown above reflects the total population within the Authority's boundary, only that population necessary to meet groundwater reduction requirements will actually be served by the Authority.

#### *B. Customers Data*

List (or attach) the names of all wholesale customers, amount of annual contract, and amount of annual use for each customer for the previous year:

See Appendix C

## **II. WATER USE DATA FOR SERVICE AREA**

#### *A. Water Delivery*

Indicate if the water provided under wholesale contracts is treated or raw water and the annual amounts for the previous five years (in acre feet):

<u>Year</u>	<u>Treated Water</u>	<u>Raw Water</u>
2010	14,576.821	
2011	36,369.951	
2012	30,166.100	
2013	16,319.846 (6 months)	
<b>Totals</b>	<b>97,432.718</b>	

*B. Water Accounting Data*

1. Total amount of water diverted at the point of diversion(s) for the previous five years (in acre-feet) for all water uses:

Year Month	2010	2011	2012	2013
January		2,103.580	1,928.362	2,064.459
February	113.622	2,096.439	1,402.465	1,744.931
March	188.264	2,874.961	1,860.259	2,927.219
April	431.642	3,519.182	2,430.983	2,796.685
May	900.393	4,007.583	3,222.561	3,242.082
June	1,200.454	3,971.986	3,025.920	3,162.436
July	1,354.343	3,563.805	1,943.535	
August	2,052.285	3,655.337	2,797.797	
September	2,074.083	3,159.371	2,990.287	
October	2,917.959	3,040.551	2,875.340	
November	2,327.761	2,680.916	2,734.082	
December	2,302.904	2,077.644	2,400.265	
Totals	15,863.710	36,751.355	29,611.856	15,937.812

2. Wholesale population served and total amount of water diverted for municipal use for the previous five years (in acre-feet):

Year	Total Population Served	Total Annual Water Diverted for Municipal Use
2010	234,723	15,863.710
2011	261,046	36,751.355
2012	270,178	29,611.856
2013	279,629	15,937.812 (6 months)

*C. Projected Water Demands*

If applicable, project and attach water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirements from such growth.

The Authority supplies only supplemental water to most districts. Demand on the Authority's water supply is based solely on the water necessary to reduce the groundwater consumption within the Authority's boundaries. Based on groundwater reduction targets set by the Harris-Galveston Subsidence District and projected per capita water use, it is projected that the Authority will need to provide surface water as portrayed below.

<u>Year</u>	<u>Groundwater Reduction Percentage</u>	<u>Projected Total Demand (MGD)</u>	<u>Projected GPCD</u>	<u>Projected SW Demand (MGD)</u>
2010	30%	95.615	159.0	28.686
2025	60%	120.86	154.5	72.516
2035	80%	127.63	154.0	102.104

### III. WATER SUPPLY SYSTEM DATA

#### A. *Projected Water Demands*

List all current water supply sources and the amounts authorized (in acre-feet) with each.

<u>Water Type</u>	<u>Source</u>	<u>Amount Authorized</u>
Surface Water		
Groundwater	3 wells in Gulf Coast Aquifer Contract City of Houston – Lake	4,480.575 (maximum)
Other	Houston	34,724.460

#### B. *Treatment and Distribution System (if providing treated water)*

1. Design daily capacity of system (MGD): 35
2. Storage capacity (MGD):
  - a. Elevated 0
  - b. Ground 26
3. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks.

The Authority's water system consists of three wells and a wholesale purchase connection from the City of Houston. The purchased surface water supplies water to two ground storage tanks (20 MG total) at the Spears Road Regional Pump Station. Five service pumps, rated at a total of 76.32 MGD, take water from the ground storage and discharge to the transmission system. Three wells (4.0 MGD total) supply water to two ground storage tanks (6 MG total) at the Louetta Regional Water Plant. Water is also received from the transmission system supplied by the Spears Road Regional Pump Station. Four service pumps, rated at a total of 28.8 MGD, take water from the storage tanks and discharge to the transmission System. A schematic of the system is provided in Exhibit 2.

#### **IV. WASTEWATER SYSTEM DATA**

##### *A. Wastewater System Data (if applicable)*

The North Harris County Regional Water Authority provides no wastewater service.

## **Appendix C**

### **Wholesale Customers, Amount of Annual Contract, and Amount of Annual Use During Calendar Year 2012**

<b>Wholesale Customer</b>	<b>Contracted Amount (acre-feet)</b>	<b>Previous Year Amount of Water Delivered (acre-feet)</b>
AQUA TEXAS, INC. (CANDELIGHT HILLS)	No Contract Minimum	283.215
BAMMEL UD	No Contract Minimum	318.719
BILMA PUD	No Contract Minimum	541.168
BRIDGESTONE MUD	No Contract Minimum	1338.068
CHARTERWOOD MUD	No Contract Minimum	486.517
CNP UD	No Contract Minimum	659.022
CY-CHAMP PUD	No Contract Minimum	636.426
CYPRESS FOREST PUD	No Contract Minimum	846.991
CYPRESS-KLEIN UD/ HARRIS COUNTY MUD 316	No Contract Minimum	571.473
CYPRESSWOOD UD / HARRIS COUNTY WCID 132	No Contract Minimum	642.241
FAULKEY GULLEY MUD	No Contract Minimum	988.222
FOUNTAINHEAD MUD	672.086	505.979
GRANT ROAD PUD	No Contract Minimum	251.486
HARRIS COUNTY FWSD 52	No Contract Minimum	629.659
HARRIS COUNTY MUD 16	554.471	502.319
HARRIS COUNTY MUD 18	No Contract Minimum	421.769
HARRIS COUNTY MUD 24	No Contract Minimum	893.918
HARRIS COUNTY MUD 44	No Contract Minimum	262.872
HARRIS COUNTY MUD 86	No Contract Minimum	495.091
HARRIS COUNTY MUD 104	No Contract Minimum	480.928
HARRIS COUNTY MUD 191	No Contract Minimum	606.685
HARRIS COUNTY MUD 202	No Contract Minimum	157.888

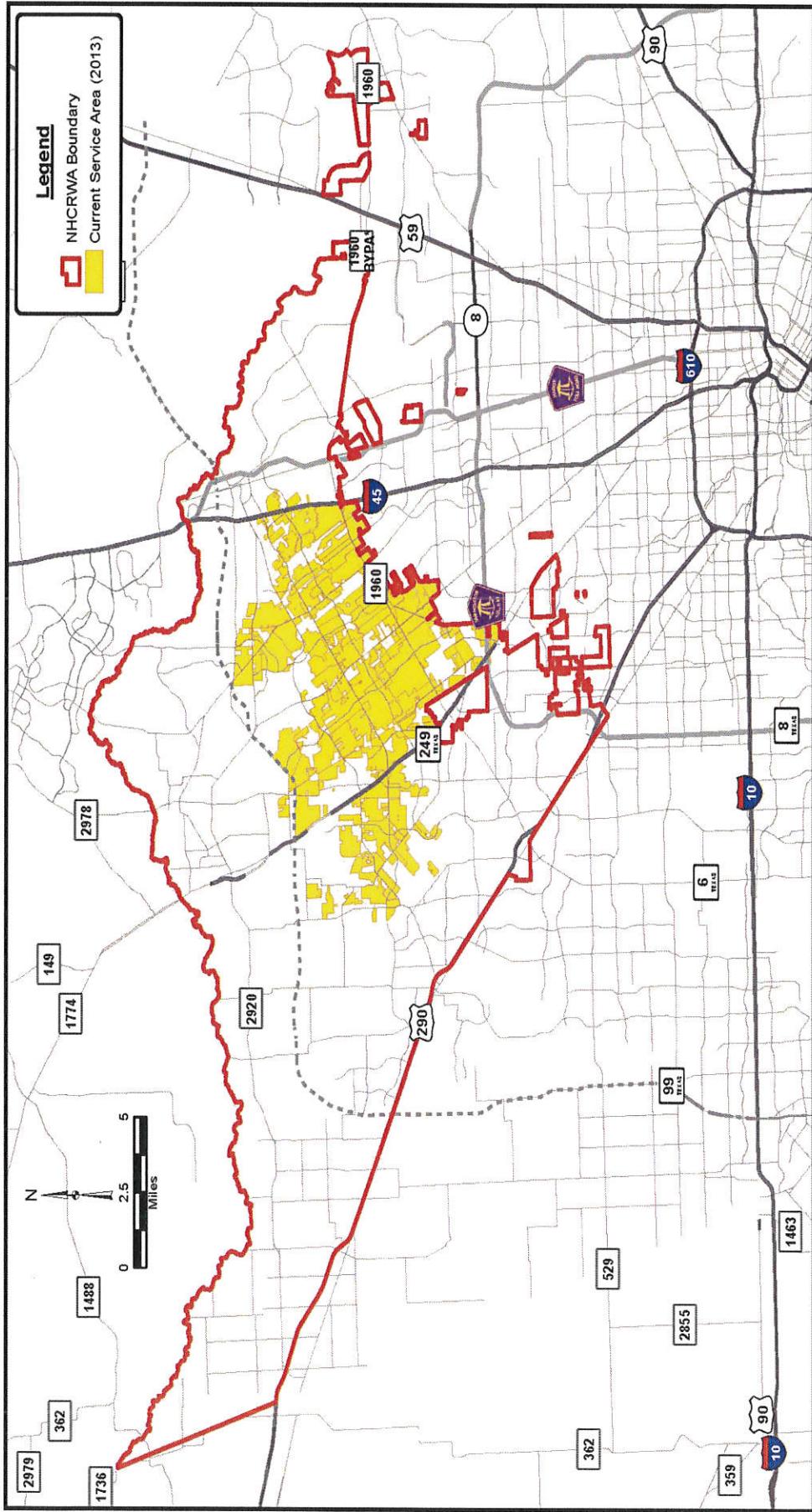
<b>Wholesale Customer</b>	<b>Contracted Amount (acre-feet)</b>	<b>Previous Year Amount of Water Delivered (acre-feet)</b>
HARRIS COUNTY MUD 211 and 233	No Contract Minimum	291.188
HARRIS COUNTY MUD 275	No Contract Minimum	124.937
HARRIS COUNTY MUD 286	No Contract Minimum	544.939
HARRIS COUNTY MUD 367 and 383	2,128.273	1,088.074
HARRIS COUNTY MUD 368	No Contract Minimum	792.058
HARRIS COUNTY MUD 468	1,209.755	400.594
HARRIS COUNTY WCID 91	No Contract Minimum	287.027
HARRIS COUNTY WCID 109	No Contract Minimum	856.293
HARRIS COUNTY WCID 110	No Contract Minimum	872.782
HARRIS COUNTY WCID 114	No Contract Minimum	678.997
HARRIS COUNTY WCID 116	No Contract Minimum	485.986
HARRIS COUNTY WCID 119	No Contract Minimum	686.995
HEATHERLOCH MUD	No Contract Minimum	511.798
KLEIN PUD	No Contract Minimum	314.368
KLEINWOOD MUD	No Contract Minimum	417.123
LOUETTA NORTH PUD	No Contract Minimum	494.907
MALCOMSON ROAD UD	750.496	1,015.360
NORTHWEST HARRIS CO. MUD 5	No Contract Minimum	575.594
NORTHWEST HARRIS CO. MUD 6	No Contract Minimum	323.436
NORTHWEST HARRIS CO. MUD 20	No Contract Minimum	441.131
NORTHWEST HARRIS CO. MUD 21 and 22	465.980	637.779
NORTHWEST HARRIS CO. MUD 23	336.043	315.960

<b>Wholesale Customer</b>	<b>Contracted Amount (acre-feet)</b>	<b>Previous Year Amount of Water Delivered (acre-feet)</b>
NORTHWEST HARRIS CO. MUD 24	No Contract Minimum	236.983
NORTHWEST HARRIS CO. MUD 30	No Contract Minimum	344.636
NORTHWEST HARRIS CO. MUD 36	No Contract Minimum	398.541
PONDEROSA FOREST UD	No Contract Minimum	895.971
PRESTONWOOD FOREST UD	No Contract Minimum	446.268
SPRING CREEK FOREST PUD	No Contract Minimum	384.071
TERRANOVA WEST MUD / LOUETTA RD UD	No Contract Minimum	644.890
WESTADOR MUD	No Contract Minimum	574.201

## **Exhibits**

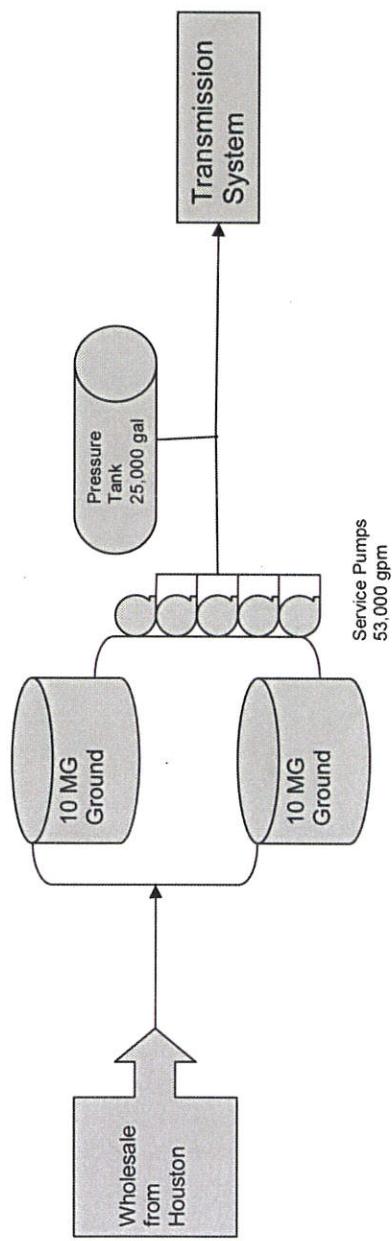
**Exhibit 1**

**North Harris County Regional Water Authority**

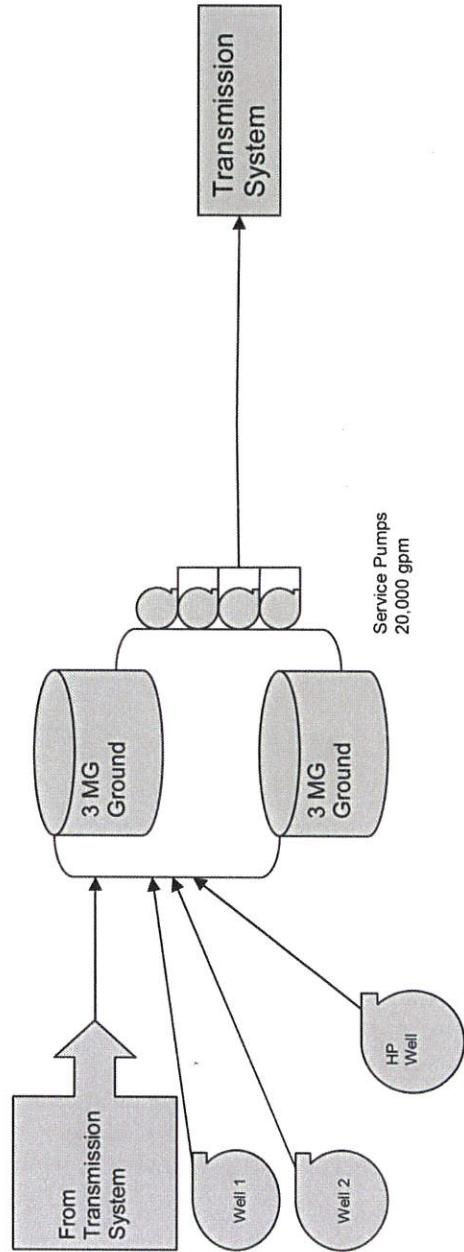


**Exhibit 2**  
**System Schematic**

**Spears Road Regional Pump Station**



**Louetta Regional Water Plant**



Service Pumps  
53,000 gpm

Service Pumps  
20,000 gpm

## **ORDER ADOPTING DROUGHT CONTINGENCY PLAN**

THE STATE OF TEXAS §  
COUNTY OF HARRIS §  
NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY §

I, the undersigned officer of the Board of Directors (the "Board") of North Harris County Regional Water Authority (the "Authority"), hereby certify as follows:

1. The Board convened in regular session, open to the public, on the 1st day of July, 2013, at the regular meeting place thereof, and the roll was called of the members of the Board, to-wit:

James D. Pulliam	President/Investment Officer
Alan J. Rendl	Vice President
Lenox A. Sigler	Secretary
Ron Graham	Assistant Secretary
Kelly P. Fessler	Treasurer

All members of the Board were present thus constituting a quorum. Whereupon, among other business, the Board reviewed and approved the following at such meeting:

### **DROUGHT CONTINGENCY PLAN**

This document was duly introduced for the consideration of the Board. It was then duly moved and seconded that same be approved; and, after due discussion, such motion, carrying with it the adoption of said document, prevailed and carried by the following vote:

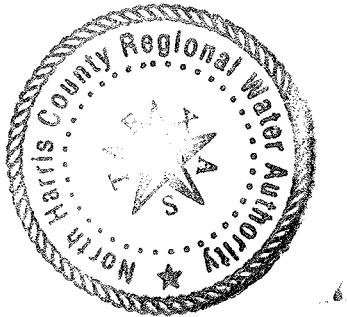
AYES: 5                    NOES: 0

2. A true, full, and correct copy of the aforesaid document adopted at the meeting described in the above and foregoing paragraph is attached to and follows this Order; such document has been duly recorded in said Board's minutes of such meeting; the above and foregoing paragraph is a true, full, and correct excerpt from the Board's minutes of such meeting pertaining to the adoption of same; the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of the Board as indicated therein; each of the officers and members of the Board was duly and sufficiently notified officially and personally, in advance of the time, place, and purpose of such meeting and that such document would be introduced and considered for adoption at such meeting and each of such officers and members consented, in advance, to the holding of such meeting for such purpose; such meeting was open to the public, as required by law, and public notice of the time, place and purpose of such meeting was given as required by Chapter 551, Government Code and Section 49.063, Texas Water Code, as amended.

SIGNED AND SEALED the 1st day of July, 2013.

Lenox A. Sigler  
Lenox A. Sigler, Secretary

(AUTHORITY SEAL)



**NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY**

**DROUGHT CONTINGENCY PLAN**

**Adopted: July 01, 2013**

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## **RECITALS**

WHEREAS, the North Harris County Regional Water Authority (the "Authority") is a regional water authority created pursuant to House Bill 2695 of the 76th Legislature, as amended (the "Act"), and Article XVI, Section 59 of the Texas Constitution; and

WHEREAS, the Authority was created, among other purposes, to accomplish the purposes of Article XVI, Section 59 of the Texas Constitution, including the acquisition and provision of surface water and groundwater for residential, commercial, industrial, agricultural, and other uses, the reduction of groundwater withdrawals, the conservation, preservation, protection, recharge and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and the control of subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions; and

WHEREAS, the Act provides that the Authority may: (1) provide for the conservation, preservation, protection, recharge, and prevention of waste of groundwater in a manner consistent with the purposes of Section 59, Article XVI, Texas Constitution; (2) provide for the reduction of groundwater withdrawals by the development, implementation, or enforcement of a groundwater reduction plan, which shall be binding on persons, districts, entities and wells within the Authority's boundaries; and (3) coordinate water services provided inside of, outside of, or into the Authority; and

WHEREAS, the Authority's Board of Directors (the "Board") desires to adopt this Drought Contingency Plan (the "Plan") to temper groundwater withdrawals within the Authority during periods of drought conditions, manage the supply of surface water available to the Authority, assist the Authority's efforts to manage its Groundwater Reduction Plan and further its purposes to provide for conservation and preservation of groundwater;

WHEREAS, this Plan requires that upon the Authority implementing any stage of water shortage, the response measures for such stage shall apply equally to all well owners with a well included within the Authority's Harris-Galveston Subsidence District aggregate water well permit (each being a "Participant"), without regard to whether each such Participant receives surface water from the Authority, the ability of any Participant to supply sufficient groundwater to meet its entire demand or any other factor;

WHEREAS, this Plan represents an initial step by the Authority in a larger process by which the Authority will develop and implement additional measures related to water supply management, and adopt amendments to its Rate Order to encourage greater compliance with this Plan, the Rate Order and other Authority rules, as necessary.

## **ARTICLE I. DEFINITIONS**

Unless the context requires otherwise, the following terms and phrases used in this Drought Contingency Plan shall have meanings assigned below and shall include the plural as well as the singular.

1.     **"Authority"** shall mean the North Harris County Regional Water Authority, a governmental agency and body politic and corporate of the State of Texas organized and operating pursuant to the provisions of Chapter 1029 (H.B. 2965), Acts of the 76<sup>th</sup> Texas Legislature 1999, as amended, to accomplish the purposes provided by Section 59, Article XVI of the Texas Constitution.
2.     **"Board"** shall mean the Board of Directors of the Authority.
3.     **"City"** shall mean the City of Houston, Texas.
4.     **"Customer"** shall mean any person receiving water from the Authority or a Participant, including the Participant itself.
5.     **"DCP"** shall mean a drought contingency plan that contains the elements required under 30 TAC § 288.20–22, as appropriate.
6.     **"General Manager"** shall mean the General Manager of the Authority or its designee.
7.     **"Ordinances"** shall mean Chapter 47, Article VII, entitled *Water Shortages and Emergencies*, of the City's Code of Ordinances.
8.     **"Participant"** shall mean any well owner whose well is included under the Authority's Harris-Galveston Subsidence District aggregate water well permit.
9.     **"Plan"** shall mean this Drought Contingency Plan.
10.    **"Supply"** shall mean the water available to the Authority, as may be apportioned pursuant to Texas Water Code, Section 11.039, from the City pursuant to that certain Water Supply Contract between the City and the Authority, dated December 16, 2002, as may be amended from time to time.

## ARTICLE II. GENERAL

### 1.     **Approval of the Plan.**

The Board has approved and adopted this Plan and its provisions are effective immediately and will be implemented by the Authority in accordance with the terms stated herein.

### 2.     **Public Involvement.**

The Authority has informed the public and wholesale water customers and affirmatively provided opportunity for input from the public and from wholesale water customers regarding the Plan. Such provision included notifying the public and wholesale water customers of the Authority's public meeting regarding the proposed Plan, notice of which was given pursuant to the Open Meetings Act prior to the Authority's public meeting.

### **3. Education and Information.**

(A) The Authority will institute an educational program to promote the Plan. This program may include, but is not limited to any of the following:

- (i) Publication of articles in a newspaper or newsletter of general circulation in the Authority's service area, providing information regarding the Plan; and
- (ii) Direct distributions of the Plan to all Participants.

(B) Additional current public educational activities consist of (i) publishing an annual newsletter distributed to more than 150,000 homes in the Authority's service area that includes features about using water more efficiently and provides useful information on water saving techniques; (ii) holding annual workshops for elementary and intermediate science and social studies teachers in the school districts within the Authority; (iii) providing water conservation educational materials for use in grades 2–7; (iv) providing mobile teaching labs containing water conservation exhibits and displays that travel to elementary and intermediate schools within the Authority's boundaries, as well as to community events and festivals; (v) providing speakers for community, civic, and service organizations (e.g., AARP, garden clubs, YMCAs, etc.) as well as conducting public workshops on a variety of conservation topics, including coping with drought, native landscaping, and irrigation methods designed to use water more efficiently; and (vi) engaging in any community or public outreach program that will help further the Plan.

### **4. Coordination with Regional Water Planning Groups.**

The Authority is located within the Region H Water Planning Area. The Authority, through its representatives, is in continuous contact with the Region H Water Planning Group during each five (5) year planning cycle of the Region H Water Plan. Pursuant to the Texas Administrative Code, Section 288.30(6), the Authority will submit a copy of the Plan to Region H.

### **5. Authorization.**

The General Manager is authorized to implement this Plan upon determining that implementation is necessary to protect public health, safety and welfare. The General Manager has the authority to initiate or terminate the water shortage response measures described in this Plan or any other measures that the General Manager, in its sole discretion, determines to be necessary to protect public health, safety and welfare.

### **6. Application.**

The provisions of the Plan apply to all Participants and Customers. All Participants must adopt a DCP with requirements at least as stringent as the requirements of this Plan. Upon the Authority implementing any stage of this Plan, each Participant shall implement at least the same stage of its DCP, but a Participant may implement any higher stage of its DCP at its own discretion.

**7. Water Shortage Response Measures Cumulative.**

The water shortage response measures outlined in this Plan shall be cumulative of any other steps the Authority is otherwise authorized to implement under Texas law or other rules/orders of the Authority, specifically including its Rate Order, to accomplish the purposes for which the Authority was created.

**8. Severability.**

It is hereby declared to be the intention of the Board that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the Board without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph or section.

**9. Update Schedule.**

In accordance with Texas Administrative Code § 288.30(6), the Authority will continue to review and update the Plan to coincide with each five (5) year planning cycle of the Region H Water Planning Group.

**10. Submittal.**

In accordance with Texas Administrative Code 288.30(6), the Authority will submit any revised versions of the Plan to the Executive Director, Texas Commission on Environmental Quality, within 90 days of adoption of a revised Plan by the Board of the Authority.

**ARTICLE III.  
TRIGGERS AND RESPONSE MEASURES**

**1. Criteria and Actions Required for Response Stages.**

(A) The General Manager will monitor water supply conditions on a monthly basis and, upon the Authority delivering to Participants more than 100% of the Supply together with the occurrence one of the triggers listed below, initiate or terminate each stage of the Plan. The Authority will notify Participants of the initiation or termination of each stage by either email, mail, telephone, and/or posting notice on the Authority's website. The news media may also be informed through a press release. The Authority will notify the Executive Director of the Texas Commission on Environmental Quality within five (5) business days of implementing or terminating any stage of this Plan requiring implementation of mandatory response measures by Participants or Customers.

(B) Upon implementation of any stage of water shortage, the Authority's operator and the Authority's Program Manager will monitor the Supply, the daily volume of water delivered by the City and any notices from the City regarding water delivery reductions or limitations. The

Authority's operator and the Authority's Program Manager will also monitor the daily volume of water delivered by the Authority to each Participant and the total volume delivered to all Participants.

## 2. Stage 1 Water Shortage.

(A) Requirement for Initiation. A Stage 1 Water Shortage exists when the Authority is delivering to Participants more than 100% of the Supply for five (5) consecutive days and/or the City has declared a Stage 1 water shortage in accordance with the Ordinances. The Authority will notify Participants of the initiation of a Stage 1 Water Shortage by either email, mail, telephone and/or by posting notice on the Authority's website. The news media may also be informed through a press release. The Authority's operator or the Authority's Program Manager will continue to monitor the daily volume of water delivered by the City and monitor any notices from the City regarding water delivery reductions or limitations. The Authority's operator and the Authority's Program Manager will also continue to monitor the daily volume of water delivered to each Customer and the total volume delivered to all Customers.

(B) Requirements for Termination. A Stage 1 Water Shortage terminates when either the Authority delivers to Participants no more than 100% of the Supply for five (5) consecutive days or the City ends its Stage 1 water shortage. The Authority will inform Participants of the termination of the Stage 1 Water Shortage in the same manner as in its initiation.

(C) Goal. Achieve a five percent (5%) reduction of average total daily usage of water within the Authority.

(D) Response Measures. During a Stage 1 Water Shortage, the General Manager shall institute a water management information program. The General Manager may use U.S. mail, electronic mail, media, and other sources to disseminate information to Participants regarding implementing voluntary response measures, including, but not limited to the following:

- (i) Requesting that Customers check for and repair all leaks, dripping faucets, and running toilets, and that Customers utilize water conservation measures such as displacement bags, low-flow shower heads and leak detection tablets;
- (ii) Requesting Customers to limit irrigation to the hours between 7:00 p.m. and 5:00 a.m. of the following day on no more than two days per week in conformity with the following schedule (no watering on Mondays):
  - a. Sundays and Thursdays for single family residential customers with even-numbered street addresses;
  - b. Saturdays and Wednesdays for single family residential customers with odd-numbered street addresses; and
  - c. Tuesdays and Fridays for all other customers;

- (iii) Advising Customers that mandatory measures may be imposed if the water shortage period continues.

### 3. Stage 2 Water Shortage.

(A) Requirement for Initiation. A Stage 2 Water Shortage exists when the Authority is delivering to Participants more than 100% of the Supply for five (5) consecutive days and/or the City has declared a Stage 2 water shortage in accordance with the Ordinances. The Authority will notify Participants of the initiation of a Stage 2 Water Shortage by either email, mail, telephone and/or by posting notice on the Authority's website. The news media may also be informed through a press release. The Authority's operator or the Authority's Program Manager will continue to monitor the daily volume of water delivered by the City and monitor any notices from the City regarding water delivery reductions or limitations. The Authority's operator and the Authority's Program Manager will also continue to monitor the daily volume of water delivered to each Customer and the total volume delivered to all Customers.

(B) Requirements for Termination. A Stage 2 Water Shortage terminates when either the Authority delivers to Participants no more than 100% of the Supply for five (5) consecutive days or the City ends its Stage 2 water shortage. The Authority will inform Participants of the Stage 2 Water Shortage in the same manner as in its initiation.

(C) Goal. Achieve a 10 percent (10%) reduction of average total daily usage of water within the Authority.

#### (D) Response Measures.

- (i) The measure(s) established for a Stage 1 Water Shortage shall continue to be implemented, except as modified below; and
- (ii) During a Stage 2 water shortage, Customers are required to:
  - a. Repair detectible water leaks within 72 hours of discovery; and
  - b. Limit outdoor irrigation to the hours 7:00 p.m. and 5:00 a.m. of the following day on no more than two (2) days per week, but possibly one day per week as determined by the Authority, in conformity with the following schedule (no watering on Mondays):
    - 1) Sundays and/or Thursdays for single family residential customers with even-numbered street addresses;
    - 2) Saturdays and/or Wednesdays for single family residential customers with odd-numbered street addresses; and
    - 3) Tuesdays and/or Fridays for all other customers.

**4. Stage 3 Water Shortage.**

(A) Requirement for Initiation. A Stage 3 Water Shortage exists when the Authority is delivering to Participants more than 100% of the Supply for five (5) consecutive days and/or the City has declared a Stage 3 water shortage in accordance with the Ordinances. The Authority will notify Participants of the initiation of a Stage 3 Water Shortage by either email, mail, telephone and/or by posting notice on the Authority's website. The news media may also be informed through a press release. The Authority's operator or the Authority's Program Manager will continue to monitor the daily volume of water delivered by the City and monitor any notices from the City regarding water delivery reductions or limitations. The Authority's operator and the Authority's Program Manager will also continue to monitor the daily volume of water delivered to each Customer and the total volume delivered to all Customers.

(B) Requirements for Termination. A Stage 3 Water Shortage terminates when either the Authority delivers to Participants no more than 100% of the Supply for five (5) consecutive days or the City ends its Stage 3 water shortage. The Authority will inform Participants of the Stage 3 Water Shortage in the same manner as in its initiation.

(C) Goal. Achieve a 15 percent (15%) reduction of average total daily usage of water within the Authority.

**(D) Response Measures.**

- (i) The measure(s) established for a Stage 1 Water Shortage and a Stage 2 Water Shortage shall continue to be implemented, except that use of water for all outdoor purposes including irrigation, ornamental, decorative, or scenic purposes such as fountains, reflecting pools, and water gardens, shall be prohibited; and
- (ii) The Authority's operator or the Authority's Program Manager will initiate weekly contact with Participants receiving water from the Authority to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water supplies if water shortage conditions worsen.

**5. Stage 4 Water Shortage.**

(A) Requirement for Initiation. A Stage 4 Water Shortage exists when the Authority is delivering to Participants more than 100% of the Supply for five (5) consecutive days and/or the City has declared a Stage 4 water shortage in accordance with the Ordinances. The Authority will notify Participants of the initiation of a Stage 4 Water Shortage by either email, mail, telephone and/or by posting notice on the Authority's website. The news media may also be informed through a press release. The Authority's operator or the Authority's Program Manager will continue to monitor the daily volume of water delivered by the City and monitor any notices from the City regarding water delivery reductions or limitations. The Authority's operator and the Authority's Program Manager will also continue to monitor the daily volume of water delivered to each Customer and the total volume delivered to all Customers.

(B) Requirements for Termination. A Stage 4 Water Shortage terminates when either the Authority delivers to Participants no more than 100% of the Supply for five (5) consecutive days or the City ends its Stage 4 water shortage. The Authority will inform Participants of the Stage 4 Water Shortage in the same manner as in its initiation.

(C) Goal. Achieve a 20 percent (20%) reduction of average total daily usage of water within the Authority.

(D) Response Measures.

- (i) The measures established for a Stage 1 Water Shortage, a Stage 2 Water Shortage and a Stage 3 Water Shortage shall continue to be implemented; and
- (ii) The Authority may initiate allocation of water supplies to its Participants contractually entitled to receive water from the Authority on a pro rata basis, in accordance with Texas Water Code, Section 11.039.

## 6. Emergency Water Shortage.

(A) Requirement for Initiation. An Emergency Water Shortage exists when the Authority is unable to provide 100% of the Supply to Participants because of a failure in or damage to the Authority's water system. The Authority will notify Participants of the initiation of an Emergency Water Shortage by either email, mail, telephone and/or by posting notice on the Authority's website. The news media may also be informed through a press release.

(B) Requirements for Termination. An Emergency Water Shortage terminates when the condition giving rise to its initiation no longer exist. The Authority will inform Participants of the termination of the Emergency Water Shortage in the same manner as in its initiation.

(C) Goal. Reduce delivery of water as appropriate to address the emergency condition.

(D) Response Measures.

- (i) When an Emergency Water Shortage exists, the Authority will issue situation reports to Participants as frequently as the emergency condition dictates. The General Manager may call emergency meetings to discuss with Participants major operational changes if it finds such action necessary during the progress of the Emergency Water Shortage. The Authority will advise Participants of the emergency condition every business day on the Authority website; and
- (ii) The Authority may implement any water shortage response measures, whether or not such measures are contained within other parts of this Plan, including without limitation, prohibiting water use for ornamental, decorative, or scenic purposes and/or allocating water supplies to

Participants contractually entitled to receive water from the Authority on a pro rata basis, in accordance with Texas Water Code, Section 11.039.

- (iii) Every wholesale water contract entered into or renewed by the Authority, including contract extensions, will include a provision that in the case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code 11.039.

## ARTICLE IV. ENFORCEMENT AND VARIANCES

### 1. Enforcement.

All of the terms, conditions and duties imposed under this Plan shall constitute rules of the Authority. As such, any failure to comply with this Plan shall be a violation of the Authority's rules and shall be subject to enforcement in the same manner as provided in the Authority's Rate Order for violations thereof.

### 2. Variances.

(A) The General Manager may, in writing, grant a temporary variance to this Plan if the General Manager determines, in its sole discretion, that failure to grant a variance will cause an emergency condition adversely affecting the public health, welfare, or safety and one or more of the following conditions are met:

- (i) Compliance with this Plan cannot be accomplished during the duration of the water supply shortage for which the Plan is in effect; or
- (ii) Alternative methods can be implemented to achieve the same level of reduction in water use and such reduction can be demonstrated.

(B) An entity requesting an exemption from the provisions of this Plan shall file a petition for variance with the General Manager within 14 days after the applicable stage of this Plan has been invoked. All petitions for variances shall be reviewed by the General Manager, and shall include the following:

- (i) Name and address of the petitioner(s);
- (ii) Detailed statement with supporting data and information as to how the implementation of this Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Plan;
- (iii) Description of the relief requested;
- (iv) Period of time for which the variance is sought;

- (v) Alternative measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date; and
- (vi) Other pertinent information.

(C) No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

## **CERTIFICATE FOR RATE ORDER**

THE STATE OF TEXAS §  
COUNTY OF HARRIS §  
NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY §

I, the undersigned Secretary of the Board of Directors (the "Board") of North Harris County Regional Water Authority (the "Authority"), hereby certify as follows:

1. The Board convened in regular session, open to the public, on the 5<sup>th</sup> day of October, 2009, at the regular meeting place thereof, and the roll was called of the members of the Board, to-wit:

Kelly P. Fessler	President
James D. Pulliam	Vice President/Investment Officer
Ron Graham	Secretary
Lenox A. Sigler	Treasurer
Alan J. Rendl	Assistant Secretary

All members of the Board were present except the following: NONE, thus constituting a quorum. Whereupon, among other business, the following was transacted at such meeting:

### **RATE ORDER**

was duly introduced for the consideration of the Board. It was then duly moved and seconded that such Order be adopted; and, after due discussion, such motion, carrying with it the adoption of said Order, prevailed and carried by the following vote:

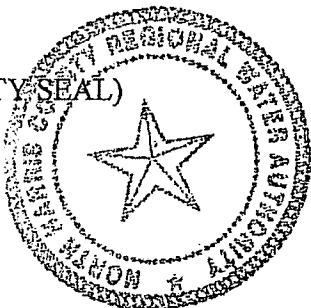
AYES: 5                    NOES: 0

2. A true, full, and correct copy of the aforesaid Order adopted at the meeting described in the above and foregoing paragraph is attached to and follows this Certificate; such Order has been duly recorded in said Board's minutes of such meeting; the above and foregoing paragraph is a true, full, and correct excerpt from the Board's minutes of such meeting pertaining to the adoption of such Order; the persons named in the above and foregoing paragraph are the duly chosen, qualified, and acting officers and members of the Board as indicated therein; each of the officers and members of the Board was duly and sufficiently notified officially and personally, in advance of the time, place, and purpose of such meeting and that such Order would be introduced and considered for adoption at such meeting and each of such officers and members consented, in advance, to the holding of such meeting for such purpose; such meeting was open to the public, as required by law, and public notice of the time, place and purpose of such meeting was given as required by Chapter 551, Government Code and Section 49.063, Texas Water Code, as amended.

SIGNED AND SEALED the 5<sup>th</sup> day of October, 2009.

*Jon Bumba*  
\_\_\_\_\_  
Secretary, Board of Directors

(AUTHORITY SEAL)



**NORTH HARRIS COUNTY  
REGIONAL WATER AUTHORITY**

**RATE ORDER**

**Date Adopted:      October 5, 2009**

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**EXHIBIT "A" *Pricing Policy***

**EXHIBIT "B" *Delivery Point***

**EXHIBIT "C" *Form of Water Supply Agreement***

**NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY  
RATE ORDER**

STATE OF TEXAS §  
COUNTY OF HARRIS §

## RECITALS

WHEREAS, the North Harris County Regional Water Authority (the "Authority") is a regional water authority created pursuant to House Bill 2695 of the 76th Legislature, as amended (the "Act"), and Article XVI, Section 59 of the Texas Constitution; and

WHEREAS, the Authority was created, among other purposes, to accomplish the purposes of Article XVI, Section 59 of the Texas Constitution, including the acquisition and provision of surface water and groundwater for residential, commercial, industrial, agricultural, and other uses, the reduction of groundwater withdrawals, the conservation, preservation, protection, recharge and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and the control of subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions; and

WHEREAS, the Act provides that the Authority may: (1) provide for the conservation, preservation, protection, recharge, and prevention of waste of groundwater in a manner consistent with the purposes of Section 59, Article XVI, Texas Constitution; (2) acquire or develop surface water and groundwater supplies from sources inside or outside the boundaries of the Authority and may conserve, store, transport, treat, purify, distribute, sell, and deliver water to persons, corporations, municipal corporations, political subdivisions of the state, and others, inside of and outside of the boundaries of the Authority for the purposes of reducing groundwater withdrawals and subsidence; and (3) provide for the reduction of groundwater withdrawals by the development, implementation, or enforcement of a groundwater reduction plan, which shall be binding on persons, districts, entities and wells within the Authority's boundaries; and

WHEREAS, the Act provides that the Authority may establish fees, rates and charges and classifications of fee and rate payers, as necessary to enable the Authority to fulfill the Authority's purposes and regulatory obligations and such fee, rates and charges must be sufficient to achieve water conservation, prevent waste of water, serve as a disincentive to pumping ground water, and accomplish the purposes of the Act, including making available alternative water supplies and to enable the Authority to meet operation and maintenance expenses and pay the principal of and interest on debt issued in connection with the exercise of the Authority's general powers and duties; and

WHEREAS, the Act authorizes the Authority to specify the rates, terms and conditions under which sources of water other than groundwater will be provided by the Authority, which may be changed from time to time as deemed necessary by the Authority, and to enter into contracts with persons, including political subdivisions of the state, on terms and conditions the board considers desirable, fair and advantageous for the performance of its rights, power, and authority under the Act and requires the Authority to adopt and enforce rules reasonably required to implement the Act; and

WHEREAS, the Board has determined that the fees, rates, charges, and classifications of fee and ratepayers, as well as the terms and conditions under which Authority Water will be provided, established in this Rate Order are necessary to accomplish the purposes and requirements set forth in the Act.

NOW, THEREFORE, IT IS ORDERED BY THE BOARD OF DIRECTORS OF THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY THAT:

## ARTICLE I DEFINITIONS

### Section 1.01 Definitions.

As used herein, the following terms shall have the respective meanings set forth or referred to below:

"Act" means House Bill 2965 of the 76th Texas Legislature, as amended.

"Authority" means the North Harris County Regional Water Authority or its representatives or consultants.

"Authority Engineer" means the Authority's Program Manager (currently AECOM USA Group, Inc.), which may be changed from time to time by the Authority.

"Authority Operator" means the operating company performing operations for the Authority (currently Severn Trent Environmental Services, Inc.), which may be changed from time to time by the Authority.

"Authority System" means the Authority's facilities, pipelines, storage tanks, conduits, pumping stations, treatment plants, meters, valves, and any other facility, device, or related appurtenance or connection used in the treatment, transportation, storage or otherwise related to the Authority's provision of Authority Water, including all easements, rights-of-way and sites owned or utilized by the Authority.

"Authority Water" means water (whether surface, ground, or a blend of both) that is delivered through or by the Authority System other than pursuant to a Groundwater Transfer Agreement – Buyer.

"Board" means the Board of Directors of the Authority.

"Chloramine System" means a chlorine and ammonia automatic proportional feed disinfection system, which is required to be installed by each Converted Entity prior to receiving Authority Water from the Authority, as further described in Section 5.05 hereof.

"Commission" means the Texas Commission on Environmental Quality, and any predecessor or successor agency.

"Converted Entity" means a Person who is designated by the Authority to receive or is actually receiving Authority Water other than through a Groundwater Transfer Agreement – Buyer or a temporary or emergency water interconnect with a Converted Entity.

"Cost of Water" means the Fee charged to a Payor based on the amount of (i) Water pumped from a Non-Exempt Well; (ii) Imported Water transported into the Authority; and/or (iii) Authority Water received, and shall be expressed as an amount of dollars for each 1,000 gallons of Water pumped, imported and/or received from the Authority, as applicable.

"Delivery Point" means the location at which the Authority's System connects to the water system of a Converted Entity through which Authority Water is supplied by the Authority to the Converted Entity.

"District" means any district created pursuant to Article III, Section 52(b)(1), (2) or Article XVI, Section 59, Texas Constitution, regardless of the manner of creation, other than a navigation district or a district governed by Chapter 36 of the Texas Water Code.

"Exempt Well" means a Well within the Authority's boundaries that (i) is not subject to groundwater reduction requirements imposed by the HGSD, as such requirements may be amended from time to time; (ii) is owned by a municipality not providing service to customers within the boundaries of the Authority; (iii) has a casing diameter of less than five (5) inches that solely serves a single family dwelling; (iv) is regulated under Chapter 27 of the Texas Water Code (injection wells); (v) is used for irrigation of agricultural crops; (vi) singularly or when aggregated with other Wells produces less than five (5) million gallons annually; or (vii) is used solely for electric generation.

"Fee" shall mean, collectively or individually, any fee, rate or charge imposed by the Authority under the provisions of this Rate Order.

"General Manager" means the General Manager of the Authority or his/her designee(s), or any other person who may hereafter exercise the functions of the said General Manager.

"GRP" means that certain groundwater reduction plan, dated May 2003, as amended, and all directives, determinations and requirements issued by the Authority (or the Authority Engineer or Authority Operator) pursuant to such plan, as all of same may be amended from time to time.

"HGSD" means the Harris–Galveston Subsidence District.

"Houston" means the City of Houston, Texas.

"Imported Water" means water, whether groundwater or surface water, that is produced outside of the boundaries of the Authority and transported into the boundaries of the Authority, by a Person other than the Authority, for subsequent distribution to an end user within the boundaries of the Authority.

"Importing Water" means the act of transporting water produced outside the Authority's boundaries across the Authority's boundaries for subsequent distribution to an end user within the Authority's boundaries.

"Meter" means any meter required to be installed by Section 4.01(a) hereof.

"Non-Exempt Well" means any Well within the Authority other than an Exempt Well.

"Non-Exempt Well Owner" means any Person owning a Non-Exempt Well.

"OPRS" means the Online Pumpage Reporting System maintained by the Authority to track the volume of Water received and from which each Payor will generate and print monthly bills for Fees owed by each Payor.

"Payor" means a Person required to pay a Fee under this Rate Order.

"Person" means any individual, corporation, organization, government or governmental subdivision or agency, District, municipality, county, political subdivision, business trust, trust, estate, partnership, association, or any other legal entity.

"Pricing Policy" means the policy adopted by the Board pursuant to which the Cost of Water is determined and implemented. The Cost of Water shall be stated within the body of or as an exhibit or attachment to the Pricing Policy. The Authority's current Pricing Policy is attached hereto as **Exhibit "A"**.

"Rate Order" means this North Harris County Regional Water Authority Rate Order, as may be amended by the Authority from time to time.

"Water" means, collectively, groundwater pumped by a Non-Exempt Well, Imported Water and Authority Water.

"Water Importation Site" means each connection, other than a connection through which the Authority receives water, whether permanent or temporary, at which water originating from outside the boundaries of the Authority enters the boundaries of the Authority.

"Water Supply Agreement" means a written agreement in a form substantially similar to that attached hereto as **Exhibit "C"** wherein the Authority covenants to supply and sell, and a buyer covenants to receive and purchase, a stated volume of Authority Water.

"Well" means a facility, device, or method used to withdraw groundwater.

#### **Section 1.02 Interpretations**

The article and section headings of this Rate Order are included herein for convenience of reference purposes only and shall not constitute a part of this Rate Order or affect its interpretation in any respect. Except where the context otherwise requires, words imparting the singular number shall include the plural and vice versa.

#### **Section 1.03 References**

Any reference in this Rate Order to a document shall mean such document and all exhibits thereto as amended or supplemented from time to time.

**Section 1.04 Effective Date.**

This Rate Order shall become effective immediately upon adoption. However, the provisions of Article III below, including without limitation the Pricing Policy and the Cost of Water stated therein, shall become effective on January 1, 2010.

**ARTICLE II  
FINDINGS**

**Section 2.01 Findings.**

Each of the recitals stated in this Rate Order are hereby adopted as a finding of the Board. All statutory requirements and conditions have been met for the establishment of those fees, rates, charges and classifications of fee and rate payers set forth in this Rate Order.

**ARTICLE III  
PRICING POLICY, COST OF WATER AND FEE COLLECTION**

**Section 3.01 Pricing Policy; Cost of Water.**

The Authority shall, by order or resolution of the Board adopted in compliance with all applicable laws, implement a Pricing Policy and set the Cost of Water. The Board may periodically adopt an updated Pricing Policy and/or Cost of Water without the necessity of amending this Rate Order. A copy of the current Pricing Policy, which contains the Cost of Water, is attached hereto as Exhibit "A".

**Section 3.02 Date Payments Due.**

A Payor must pay the full Fee owed on a monthly basis, and such Fees for Water received each month shall be due by the 18th day of the second (2<sup>nd</sup>) month following month during which the Payor incurred the Fee. For example, Fees for Water received during the month of January must be paid by the 18<sup>th</sup> of March. All payments must be received at the office of the Authority, if mailed, or in the Authority's account, if wired, on or before the due date.

**Section 3.03 Meter Reading; Reporting.**

(a) *Authority.* The Authority will not send invoices or bills to any Payor. However, the Authority shall deliver to each Payor a notice, including a copy, of any orders or resolutions changing the Pricing Policy or Cost of Water and will read each Meter measuring Authority Water on the last regular business day of each month and enter such readings into the OPRS.

(b) *Payor.* Payors must read Meters not measuring Authority Water on a daily basis and enter such readings into the OPRS a minimum of two (2) non-consecutive days each week. However, Payors whose water distribution systems serve fewer than 250 connections and use only groundwater or purchase treated Water shall read Meters not measuring Authority Water and enter such readings into the OPRS a minimum of one (1) time each week.

Section 3.04 Collection of Fees.

(a) *Fee Statements.* Once all Meter readings have been entered pursuant to Section 3.03 hereof, the Payor shall print its Fee statement from the OPRS and deliver the Fee statement to the Authority with full payment, within the timeframe required by Section 3.02 hereof.

(b) *Late Fees.* Payments for Fees not received by the Authority by the date required in Section 3.02 hereof shall accrue interest at a rate equal to the sum of one percent (1%) and the prime rate published in the Wall Street Journal on the first (1<sup>st</sup>) day of preceding July that does not fall on a Saturday or Sunday.

(c) *Collection Costs.* In a formal administrative or judicial action to collect Fees or interest due under this Rate Order, the opposing party, which may be the Authority or the Payor, shall pay the reasonable attorney fees of the prevailing party.

Section 3.05 Form of Payment.

All Fees payable to the Authority shall be paid in money which is legal tender in the United States of America. Payments will be accepted only by check or money order made payable to the "North Harris County Regional Water Authority" or by wire transfer according to written wiring instructions provided by the Authority. No cash will be accepted. Written wire instructions are available upon request.

**ARTICLE IV  
MEASUREMENT OF WATER USAGE**

Section 4.01 Meters.

(a) *Locations.* Each Non-Exempt Well, Delivery Point and Water Importation Site shall be equipped with a Meter to measure the volume of (i) water pumped from each Non-Exempt Well, (ii) Authority Water supplied by the Authority to a Converted Entity; or (iii) Imported Water transported into the Authority, respectively; provided however, that any Water Importation Site which is solely for emergency use and is utilized for less than 30 days in any 365-day period shall be exempt from the requirement to be equipped with a Meter. The Authority may, in its sole discretion and on a case-by-case basis, exempt a Water Importation Site installed solely for emergency purposes in the event it must be used for more than 30 days in any 365-day period.

(b) *Accuracy Standards; Testing and Recalibration.* All Meters must be calibrated at least once every two (2) years. Any Meter measuring Authority Water must be between 97% and 103% accurate. Any Meter measuring other types of Water must be between 95% and 105% accurate. If the Authority at any time believes a Meter measuring Water, other than Authority Water, fails to meet the aforementioned accuracy standards, it may cause such Meter to be independently tested and the results thereof be reported to the Authority. If the Payor refuses to test a Meter measuring Water other than Authority Water after the Authority so requests, the Authority may have the Meter independently tested and recalibrated, including, if necessary, removing the Meter for testing and replacing it with a temporary Meter. Likewise,

should a Payor believe a Meter measuring Authority Water fails to meet the aforementioned accuracy standards, it may notify the Authority and request that such Meter be independently tested and the results thereof be reported to the Payor. If the testing reveals that the Meter fails to meet these accuracy standards, the total quantity of Water received by the Payor will be deemed to be the average daily consumption as measured by the Meter when in working order, and the Meter shall be corrected, repaired, or replaced with an accurate Meter. In such event, the Payor's payments of Fees to the Authority shall be adjusted (increased or decreased) for a period extending back to the time when the inaccuracy began, if such time is ascertainable; and if such time is not ascertainable, for a period extending back to the last test of the measuring equipment, the date of a material change in average daily use or 120 days, whichever is shorter. Any such adjustments shall be reflected on the Payor's first payment following the adjustment. The party that owns and is responsible for operation and maintenance of the Meter, pursuant to Section 5.03 of this Rate Order, shall pay the cost for any testing, recalibrating, removing or replacing a Meter or installing a temporary Meter, as applicable, unless the testing reveals that the Meter complies with the aforementioned accuracy standards, in which case the party requesting the testing shall pay such costs.

#### Section 4.02    Audits.

The Authority shall have the right to audit the Water measurements or calculations submitted by the Payor by reading any of the Payor's Meter(s) and reviewing the Payor's records. Upon written request, a Payor shall provide to the Authority, without charge, a copy of any agreement related to a Water Importation Site or Imported Water and all data and reports used to calculate the volume of Imported Water or Non-Exempt Well pumpage. Any such audit shall be conducted in accordance with audit procedures adopted and implemented by the Authority.

#### Section 4.03    Failure to Read Meter or Report Water Received.

In the event a Payor fails to read a Meter and enter such readings, as required by Section 3.03(b) hereof, after giving notice of such failure the Authority shall have the right to read the Meter. If the Authority reads a Meter under such conditions, the Payor will be billed at the Authority's cost for this service. The Payor's Fee may be based on the Authority's reading, regardless of when the Authority reads the meter, at the Authority's sole discretion. In addition, the Authority may impose a penalty of \$100 for any month in which such Water was received but not reported, or the amount of such Water reported was more than 10% below the actual amount of such Water received, as determined by the Authority.

#### Section 4.04    Annual Water Reports.

Prior to January 31st of each year, each Well owner shall submit to the Authority an Annual Groundwater Pumpage Report for the immediately preceding calendar year, in the same format as that required by the HGSD. In addition, each Well owner whose Well permit has been aggregated by the HGSD under the Authority shall, by April 1 of each year, report to the Authority the estimated amount of Water it will use during the next permit year.

## ARTICLE V

### AUTHORITY WATER USE AND CONVERSION

#### Section 5.01 Use of Authority Water by Converted Entities.

Except as otherwise provided by this Section 5.01, all Converted Entities must use only Authority Water. In the event the Authority is unable to supply a Converted Entity with an adequate quantity of Authority Water to allow the Converted Entity to meet its demand, the Converted Entity may operate its Well(s) for the minimum duration necessary to meet its demand. However, a Converted Entity required to use its Well(s) to meet demand shall coordinate with the Authority and operate its water production and distribution system to maximize Authority Water consumption. In addition, a Converted Entity may exercise its Well(s) as necessary to maintain its/their proper operability; provided that the Converted Entity provides prior written notice of such necessity to the Authority Engineer detailing the duration and frequency of exercise the Well requires. Notwithstanding the foregoing, nothing in this Rate Order shall be interpreted as prohibiting a Converted Entity from taking steps necessary to respond to a life-safety emergency or to mitigate the impact thereof. The Authority will use its best efforts to provide reasonable assistance to Converted Entities in responding to a life-safety emergency as rapidly as practicable. As used this Section 5.01, a "life-safety emergency" shall include an explosion, fire or other event requiring unusual quantities of Water; sabotage, infection or contamination of Water; loss of pressure; disinfection failure; or another condition involving or relating to Water that could cause public illness, injury or loss of life.

#### Section 5.02 Delivery Point; Title to Authority Water.

The Delivery Point for Authority Water supplied by the Authority to a Converted Entity shall be one (1) foot downstream of the pressure/flow control station and/or Meter installed by the Authority to serve such Converted Entity, whichever is furthest downstream, as further illustrated on **Exhibit "B"** attached hereto. Title to Authority Water delivered hereunder shall pass from the Authority to the Converted Entity at the Delivery Point. As such, the Authority shall be deemed to be in exclusive control and possession of Authority Water until the same shall have been delivered to the Delivery Point and the Converted Entity shall be deemed to be in exclusive control and possession of Authority Water after receipt of same at the Delivery Point. In addition, the risk of loss for Water delivered hereunder shall be and remain with the party having exclusive control and possession of the Water as provided herein.

#### Section 5.03 Delivery Facilities.

Each Converted Entity shall be responsible for conveying Authority Water from the Delivery Point to and into the Converted Entity's water system. The Authority, and not the Converted Entity, shall own, operate and maintain all of the equipment installed by the Authority upstream of the Delivery Point; the Converted Entity shall maintain all facilities, tanks, buildings, materials, wells, lines downstream and any other similar or related equipment or facilities related to the receipt and distribution of Authority Water, specifically including the Converted Entity's existing water production and distribution system. The Payor shall be responsible for operation and maintenance of all Meters and related appurtenances used to measure Water that is not Authority Water.

#### Section 5.04 Connection to Authority System.

No Person shall connect to the Authority System unless and until the Authority consents in writing to such connection. If the Authority, at its option, so consents, the connection shall be made in strict conformity with the terms and conditions of such Authority consent. The Authority shall furnish, install and operate, at its own expense, the necessary equipment and devices of standard type for measuring the quantity of Authority Water delivered by the Authority. Unless otherwise agreed to in writing by the Authority, the Converted Entity shall at all times, at its own expense, maintain an air gap, in accordance with a location and specifications approved by the Authority, downstream of the Delivery Point before Authority Water enters the Converted Entity's ground storage tank. Nothing in this Section 5.04 shall: (i) require a Converted Entity to obtain any additional consent from the Authority related to connections to the Authority System existing on the date this Rate Order is adopted by the Authority; or (ii) apply to a connection constructed by the Authority.

#### Section 5.05 Chloramine System.

(a) *Installation.* Each Converted Entity is required to: (i) receive permission from the Commission to use chloramine disinfection; (ii) receive approval from the Commission to construct its Chloramine System; (iii) install and begin use of its Chloramine System; and (iv) maintain use of its Chloramine System thereafter for so long as it is connected to the Authority's System. Failure to have a Chloramine System installed and operational by the date on which the Authority is prepared to provide Authority Water to the Converted Entity shall constitute a violation of this Rate Order subject to the penalties outlined in Sections 6.01–03 hereof.

(b) *Notice.* Prior to first (1<sup>st</sup>) using a Chloramine System, each Converted Entity (and each Person that receives water from a Converted Entity, for example and without limitation, via a water interconnect), and not the Authority, shall be responsible for: (i) notifying such Converted Entity's Water users about its conversion to and use of chloramine disinfection in compliance with the form and timeframe prescribed by the Commission; and (ii) complying with any applicable United States Environmental Protection Agency and Commission regulations and requirements, and any other applicable laws.

(c) *Certification.* Prior to first (1<sup>st</sup>) receiving Authority Water, each Converted Entity shall provide evidence to the Authority, in a form acceptable to the Authority, demonstrating that it has complied with the requirements of this Section 5.05.

#### Section 5.06 Quantity or Pressure of Water; Water Supply Agreements.

(a) Except as provided in this Section 5.06 and notwithstanding any other provision of this Rate Order or act of the Authority, the Authority does not and will not guarantee to any Person a specific quantity or pressure of Authority Water for any purpose whatsoever. In no case shall the Authority be liable for the failure or refusal to furnish Authority Water or any particular amount or pressure of water. In addition, under current Commission rules, Authority Water is not considered a source of water for purposes of complying with Commission rules absent an executed water supply agreement. The Authority will consider entering such agreements in a form substantially similar to that attached hereto as Exhibit "C".

(b) The terms of this Rate Order shall be incorporated by reference into each Water Supply Agreement as if fully set forth therein. The General Manager shall negotiate each Water Supply Agreement on the terms specified on the form of such agreement attached hereto, or on such other terms as the General Manager determines necessary or convenient after consultation with the Authority Engineer and general counsel to the Authority. The General Manager shall have authority to execute each Water Supply Agreement and fully bind the Authority thereto.

**Section 5.07 Interruptions in Service.**

Notwithstanding any provision of this Rate Order or any applicable agreement entered into by the Authority, the Authority may interrupt, reduce or cease deliveries of Authority Water if such interruption or reduction is necessary: (i) due to limitations in the Authority System or Houston's water system; (ii) in case of emergencies or breakdowns in the Authority System or Houston's water system; or (iii) for equipment installation, repairs, modifications, replacements, inspections, or maintenance on the Authority System or Houston's water system. When practicable, the Authority shall provide notice in advance of such interruptions, reductions or cessation. However, the Authority may interrupt, reduce or cease deliveries of Authority Water without notice if such interruption or reduction is necessary because of any emergency condition involving public health, safety or welfare or for purposes of the GRP. The Authority shall have no liability to any Person for any damages caused by any interruption in service or any failure (partial or total) to deliver Authority Water.

**Section 5.08 Maintenance of Groundwater Wells and Interconnects.**

Subject to the limitations provided in Section 5.01, Converted Entities: (i) to the extent reasonable, shall maintain their existing groundwater well(s) and other groundwater facilities; and (ii) are encouraged to maintain water line interconnect(s) with other political subdivision(s). If a Converted Entity determines that its groundwater well cannot reasonably be maintained, such Converted Entity shall immediately notify the Authority of such determination.

**Section 5.09 Early Conversion; Inadequate Groundwater Facilities.**

To the extent that a Person desires to purchase Authority Water on a wholesale basis for any reason in advance of the date that the Authority intends to provide Authority Water, such Person may submit a written request for Authority Water to the Authority, which request will be evaluated by the Authority, in its sole discretion, on economic feasibility, GRP cost, and other factors; and the Authority will determine, in its sole discretion, if such request can be satisfied, in what amount, and according to what time frame and terms.

**Section 5.10 Implementation of GRP.**

Pursuant to the Act, the Authority is authorized to develop, prepare, revise, adopt, implement, enforce, manage and participate in the GRP. The GRP may specify the measures to be taken to reduce groundwater withdrawals and the dates and extent to which Persons shall reduce or terminate withdrawal of groundwater and instead receive water from alternative sources. The Authority shall manage the GRP, including, without limitation, coordinating with the HGSD and implementing the GRP's goals. In order to implement the GRP, the Authority may from time to time issue groundwater reduction requirements to Persons in order to: (a) comply with or exceed

HGSD groundwater reduction requirements; (b) allocate Authority Water among Persons, including requiring Persons to take Authority Water in amounts determined by the Authority, but that shall not exceed the Person's total demand; and/or (c) comply with the aggregated groundwater permit from the HGSD. All Persons shall comply with such orders and requirements of the Authority.

**Section 5.11 Early-Conversion/Over-Conversion Credits.**

The Authority shall receive and be entitled to any early-conversion or over-conversion credits issued by the HGSD related to Authority Water (or any Water other than groundwater) consumed or utilized by any Person within the GRP. No Person within the GRP shall obtain (or attempt to obtain) for such Person's own benefit or the benefit of anyone other than the Authority or sell (or attempt to sell), any such early-conversion or over-conversion credits. If requested by the Authority, Persons within the GRP shall cooperate with the Authority in order to enable the Authority to receive such early-conversion or over-conversion credits. Nothing in this Section 5.11 shall mean that the Authority will receive or be entitled to any credits resulting from any Person's participation in HGSD's WaterWise program.

**Section 5.12 Drought Contingency and Water Conservation Plans.**

(a) *Drought Contingency Plans.* Prior to first receiving Authority Water, each Converted Entity shall certify to the Authority that it has adopted and implemented the drought contingency plan already required by 30 Texas Administrative Code ("TAC") Chapter 288. If a Converted Entity intends to resell Authority Water to a wholesale customer, the Converted Entity shall require its wholesale customer to also implement a drought contingency plan meeting the requirements of 30 TAC Chapter 288.

(b) *Water Conservation Plans.* By April 1, 2010 or prior to first receiving Authority Water, whichever occurs latest, each Converted Entity shall (i) implement a water conservation plan that complies with 30 TAC § 288.2(a), whether or not the Person is otherwise currently required to implement such a plan; and (ii) certify such fact to the Authority. If a Converted Entity intends to resell Authority Water to a wholesale customer, the Converted Entity shall require its wholesale customer to also implement a water conservation plan meeting the requirements of this Section 5.12(b).

(c) *Certifications.* The certifications required in Sections 5.12(a)-(b) stating that the drought contingency plan and/or water conservation plan, as applicable, has been adopted and implemented shall be signed by the Converted Entity's highest ranking officer. In addition, each Converted Entity certifying it has complied with Section 5.12(b) hereof shall enclose therewith a copy of the non-promotional rate structure (i.e. a rate structure that charges a higher rate as Water consumption increases) adopted under its water conservation plan.

**Section 5.13 Compliance of Converted Entities' Water Systems.**

In order to protect the Authority System, each Converted Entity's water system, shall be constructed and operated to comply with the rules promulgated by the Commission, or any successor agency. Should a condition in violation of these requirements be discovered, such Converted Entity shall promptly cure same. The Authority may conduct inspections from time to

time to determine that no conditions exist in such Converted Entity's water system and in connections to the Converted Entity's customers' premises which would or might adversely affect the Authority System.

**Section 5.14 Termination and Reconnection of Service.**

The Authority may take steps necessary to prevent a Converted Entity from continuing to receive Authority Water as a result of violating the terms of this Rate Order or other Authority rules. If a Converted Entity's ability to receive Authority Water is terminated by the Authority for any legally authorized cause, all charges then due and a reconnection fee shall be paid prior to service being restored. In the event the Authority deems it necessary to remove a Converted Entity's Meter to enforce such termination, a reinstallation fee shall be paid prior to service being restored, which fee is in addition to any other fees imposed (including, without limitation, the reconnection fee). The amount of the reconnection and reinstallation fees described above shall equal the actual cost incurred by the Authority to reconnect service and/or remove and reinstall the Converted Entity's Meter, respectively.

**ARTICLE VI**  
**AUTHORITY RULES AND PENALTIES**

**Section 6.01 Rate Order Constitutes Authority Rule.**

All of the terms, conditions and duties imposed upon any Person under this Rate Order shall constitute rules of the Authority. As such, failure by any Person to comply with this Rate Order shall be a violation of the Authority's rules. Such violations shall include, but are not limited to any Person's failure to:

- (a) read any Meter(s) not measuring Authority Water and accurately report such readings to the Authority;
- (b) allow the Authority to audit quantities of Well Pumpage or Imported Water, read any Meter(s), or test and recalibrate, if necessary, any Meter(s);
- (c) maintain any Meter(s) not measuring Authority Water at the applicable accuracy standard;
- (d) pay all Fees when due; and
- (e) comply with the GRP and all directives and requirements issued by the Authority related to the GRP, including all requirements related to the amounts of Authority Water a Converted Entity must take from the Authority.

**Section 6.02 Civil Penalty.**

A Person is subject to a civil penalty of up to \$10,000 for each violation or each day of a continuing violation if the Person: (i) violates any provision of this Rate Order, the GRP or, any rules contained in either of same; (ii) makes unauthorized use of Authority services or facilities, or (iii) causes damage to Authority facilities by using such facilities in a manner or for a purpose contrary to the purpose for which such facilities were designed. The Authority shall set the

amount of the penalty based on (a) the severity of the offense; (b) whether such violation was willful, knowing, reckless or inadvertent; (c) the history of offenses by such Person; and (d) the damages sustained by the Authority. The Authority may bring an action to recover the penalty in a district court in the county where the violation occurred. Any such penalties shall be paid to the Authority.

**Section 6.03 Termination for Rate Order or GRP Violations.**

Any Person who violates any provision of this Rate Order or the GRP shall be subject to being removed from the GRP or having service terminated; provided, however, that prior to such removal or termination for violations that do not constitute a hazard to health or safety or endanger the integrity of the Authority's system or adversely affect the GRP, the Authority shall give written notice to such Person of the pending removal or disconnection, and such notice shall contain a timeframe during which the Person may contest, explain or correct the violation. In the event a Person's violations create a hazard to health or safety or endanger the integrity of the Authority's system or adversely affect the GRP, the Authority may terminate service to such Person without prior notice; provided that the Authority gives notice to such Person within 24 hours after service has been terminated. Removal from the GRP or termination of service shall be in addition to any other penalties that may be imposed by the Authority under this Rate Order and remedies that may otherwise be available to the Authority.

**Section 6.04 Injunction.**

The Authority may bring an action for injunctive relief in a district court in the county where a violation of an Authority rule or order occurs or is threatened to occur. The Authority may bring an action for a civil penalty and injunctive relief in the same proceeding.

**Section 6.05 Penalties Passed through to Violator.**

In the event the Authority is penalized for any reason and the cause for such penalty can be attributed to the action or inaction of any Person, to the maximum extent possible such penalty shall be passed through to such Person.

**ARTICLE VII**  
**MISCELLANEOUS**

**Section 7.01 Right to Enter Land.**

In addition to any other rights that the Authority may have (by easement or otherwise), the Authority and its representatives shall have the authority to enter upon any Payor's property or any property where a Payor's Meter is located at any reasonable time in order to: (1) inspect, repair, install, test, maintain or operate any Authority facilities located on a District's water plant site(s) or to test or monitor the Authority Water delivered; (2) audit the Water measurements submitted to the Authority; (3) measure Water in the event a Payor has failed to do so; (4) inspect and investigate conditions relating to the quality of Water or compliance with any Authority rule, regulation, permit or order. If requested by the Authority, Authority Engineer or Authority Operator, a Payor shall immediately cooperate with the Authority, Authority Engineer or Authority Operator to allow the Authority, Authority Engineer or Authority Operator to enter such

site(s) for any of such purposes. Unless the Authority has reason to believe that a Payor has not submitted correct Water data or an emergency condition involving the public health, safety or welfare exists, the Authority will provide the Payor a minimum of one (1) business day's notice of its intent to enter upon the Payor's land or any property where a Payor's Meter is located. Authority representatives entering private property pursuant to this Section shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection and shall notify any occupant or management of their presence and shall exhibit proper credentials.

**Section 7.02 Amendments to Rate Order and GRP.**

As determined necessary by the Authority, the Authority reserves the right to modify from time to time the GRP and the rates, charges, fees or any other terms of this Rate Order.

**Section 7.03 Authority Designee.**

The Authority hereby designates its General Manager, the Board President and Vice President, the Authority Engineer, the Authority's Financial Assistant and the Authority Operator as its designees with authority to exercise the Authority's powers under its GRP and this Rate Order. In addition, the General Manager may take any action on behalf of the Authority necessary and convenient to accomplish the purposes of this Rate Order and the GRP.

**Section 7.04 Refusal to Add Persons to GRP.**

The Authority, at its sole discretion, may refuse to add Persons (and their wells) to the GRP, including, without limitation, any Person seeking to be re-admitted to the GRP who at any time had been removed from the GRP.

**Section 7.05 Compliance with Other Rules.**

Except as specifically provided in this Rate Order, nothing herein shall affect any Person's duty to ensure it complies with all applicable rules, regulations, ordinances or laws governing such Person, specifically including without limitation those rules, regulations, ordinances or laws promulgated by the State of Texas, the Commission, the Texas Water Development Board, Harris County, HGSD and Houston.

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**EXHIBIT "A"**  
*Pricing Policy*



UPDATED 12/2/13

**UPDATED PRICING POLICY  
OF THE NORTH HARRIS COUNTY REGIONAL WATER AUTHORITY**  
(Effective April 1, 2014)

This Updated Pricing Policy of the North Harris County Regional Water Authority (this "Updated Pricing Policy") is intended to define the Cost of Water paid to the Authority for Water used within the Authority and is an integral part of the Authority's Rate Order (the "Rate Order"), adopted on October 5, 2009. Unless specifically defined otherwise, capitalized terms in this Updated Pricing Policy shall have the meanings defined in the Rate Order.

Effective April 1, 2014, the following Cost of Water will apply to and be due by users of Water within the Authority:

Authority Water	\$2.45 per 1,000 gallons
Water pumped from a Non-Exempt Well	\$2.00 per 1,000 gallons
Imported Water	\$2.00 per 1,000 gallons

In addition to the above Fees, the Authority will provide a credit for the cost of the Chloramine System constructed by each Converted Entity (the "Chloramination Credit"). Requirements to receive such credit and the basis for calculating same is defined below. Furthermore, any credits for capital contributions paid to the Authority by a Payor shall continue as provided in the applicable written agreement executed between the Payor and the Authority.

The Authority may revise the above Fees and modify, delete or add any credit(s), subject to the provisions of any applicable written agreements, if and when necessary. Payors will be notified of any such changes.

**Chloramination Credit**

A Converted Entity shall be eligible to receive the Chloramination Credit. In order to receive the Chloramination Credit the Converted Entity shall provide, in a timely manner and in a form acceptable to the General Manager, information documenting and certifying the cost of its Chloramine System. Such cost shall include the actual construction and engineering/design costs of the Converted Entity's Chloramine System.

Once the required information is provided to and accepted by the General Manager, the Chloramination Credit will be calculated by the Authority. The annual Chloramination Credit shall be calculated by amortizing the cost of the Chloramine System at 6% interest over a 30-year period, which shall begin the year the facilities are placed in service. The annual Chloramination Credit amount will be divided by 12 and the resultant amount will be credited monthly toward the fees payable to the Authority for the Water used by the Converted Entity.

### New/Replacement Facilities

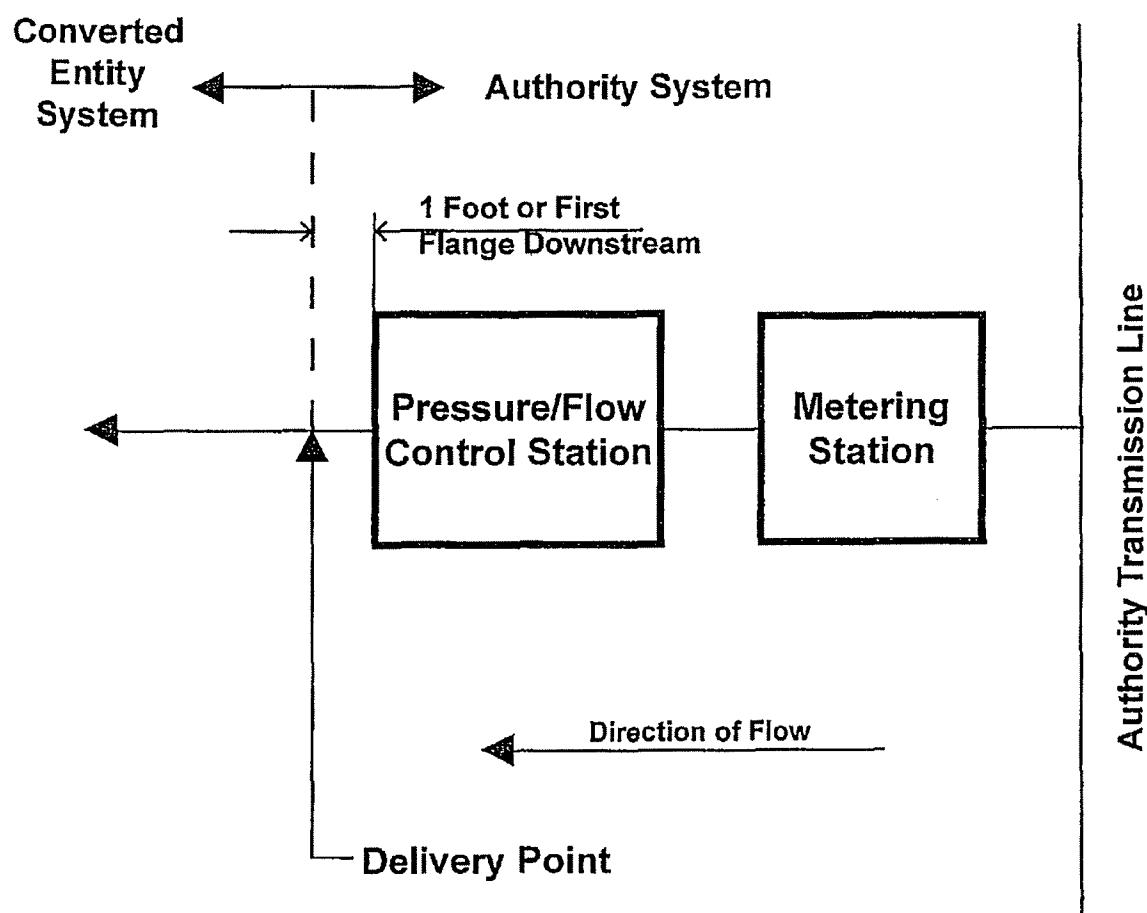
In order to help facilitate the effective implementation of the GRP, any Payor who anticipates the construction of new or replacement Water production, storage and/or treatment facilities and/or related appurtenances shall advise the Authority of those plans as early in the process as possible. The Authority will review such proposed improvements for conformity with the goals of the GRP and the possibility of the Authority being able to address those needs (i.e., by providing water in lieu of the Payor having to construct or replace facilities). Within the limits of its jurisdiction, the Authority will regulate construction of such facilities to accomplish the goals of the GRP.

### Policy Implementation

The General Manager is authorized to take any actions on behalf of the Authority necessary and convenient to accomplish the purposes of this Updated Pricing Policy. The General Manager is also authorized to take actions necessary to comply with any special credit provisions provided under any agreements that may exist between a Payor and the Authority.

**EXHIBIT "B"**  
*Delivery Point*

**EXHIBIT B**  
**SCHEMATIC LAYOUT OF LOCATION**  
**OF DELIVERY POINT**



NOT TO SCALE

**EXHIBIT "C"**  
*Form of Water Supply Agreement*

## WATER SUPPLY AGREEMENT

WHEREAS, [buyer name], a [entity type] (the "Buyer") has requested this Water Supply Agreement (the "Agreement") from the North Harris County Regional Water Authority (the "Authority") so Buyer may maintain compliance with the Texas Commission on Environmental Quality's requirements related to Buyer's minimum water supply capacity;

WHEREAS, Buyer desires to purchase and the Authority desires to sell the volume of water specified below in the manner and on the terms herein specified;

NOW, THEREFORE, for and in consideration of the mutual promises and consideration hereinafter described, the Authority and Buyer hereby agree as follows:

**1. Purchase and Sale of Water.** Buyer shall buy and receive from the Authority, and the Authority shall sell and deliver to the Buyer, at the Delivery Point, a volume of Authority Water between    million gallons per day ("MGD") and    MGD.

**2. Flow Rate, Pressure and Disinfection Method.** The Authority shall deliver Authority Water at a rate not to exceed    gallons per hour and at pressure adequate to discharge Authority Water into Buyer's ground storage tank. To facilitate the operation of both the Authority System and Buyer's water production and distribution system, Buyer shall accept at the Delivery Point    MGD average daily flow and    MGD during peak day flow. Both the Authority and Buyer shall disinfect Authority Water using chloramines.

**3. Contact Information.** The contact information for Buyer for all correspondence related to this Agreement shall be:

<b>Buyer</b> [Name] [Street] [City, State Zip] [Phone #] [Fax #] Fax	<b>With a copy to:</b> [Name] [Street] [City, State Zip] [Phone #] [Fax #] Fax
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**4. Term.** This Agreement shall be effective on the date on which this Agreement is signed by both parties hereto and shall end on January 1, 2040.

**5. Other Terms Incorporated by Reference.** The Authority's Standard Terms of Water Supply Agreement (the "Standard Terms") and Rate Order, as it may be amended from time to time, are incorporated by reference and made apart of this Agreement as though fully set forth herein. A copy of the Standard Terms is attached hereto as Appendix "1". Unless otherwise defined, capitalized terms in this Agreement and the Standard Terms shall have the meaning assigned in the Rate Order.

The parties hereto have caused this Agreement to be duly executed effective as of the date of the latest signature hereon.

**Buyer:** \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Authority:** \_\_\_\_\_

Jimmie Schindewolf

General Manager

**Attest:** \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Date:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## APPENDIX "1"

### *Standard Terms of Water Supply Agreement*

**Notices.** All notices, consents, or other communications required hereunder shall be in writing and shall be sufficiently given (i) if addressed and mailed by first-class, certified or registered mail, postage prepaid, or (ii) upon receipt of notice given by facsimile, overnight courier or personal delivery, in either case as follows:

**If to the Buyer:** to the address and/or fax number listed in Paragraph 3 of the Water Supply Agreement.

**If to the Authority:**

Jimmie Schindewolf, General Manager  
North Harris County Regional Water Authority  
3648 FM 1960 West, Suite 110  
Houston, Texas 77068  
(Fax) 281-440-4104

*With a copy to:*

Robin S. Bobbitt  
Johnson Radcliffe Petrov & Bobbitt PLLC  
1001 McKinney, Suite 1000  
Houston, Texas 77002  
(Fax) 713-237-1313

**Binding Effect; Assignment.** The Agreement shall inure to the benefit of, and shall be binding upon, the Authority, Buyer and their respective successors and assigns authorized by the terms of the Agreement. Neither party may assign the Agreement or its rights and responsibilities thereunder to a third party without the prior written consent of the other party to the Agreement.

**Severability.** In the event any provision of the Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision of such Agreement and the Agreement shall be read as though the invalidated or unenforceable provision were not present.

**Governing Law.** The Agreement shall be governed by, and construed in accordance with, the laws of the State of Texas, including, but not limited to, the rules and regulations of the Commission. Venue shall be in Harris County, Texas.

**Third-Party Benefit.** Nothing in the Agreement, express or implied, is intended or shall be construed to confer upon or give to any person, other than the Authority and the Buyer involved, any right, remedy or claim under or by reason of the Agreement; and the covenants and agreements contained therein are and shall be for the sole and exclusive benefit of the parties thereto or their successors and assigns.

**Integration.** The Water Supply

Agreement, these Standard Terms and the Rate Order constitute the entire agreement between the Authority and Buyer and shall completely and fully supersede all prior undertakings or agreements, whether oral or written, relating to the subject matter hereof.

**Headings.** Section and subsection headings in the Agreement are included for convenience of reference only and will not constitute a part of the Agreement for any purpose.

**Updates to Authority Rules.** The sale of Authority Water under the Agreement shall be subject to all of the provisions of the rules, rates and regulations established and amended from time to time by the Authority's Board of Directors or its General Manager concerning rate review and adjustment, generally-applicable temporary interruptions of service, cut-off, lien for charges, and all other generally-applicable matters now or hereafter prescribed by resolution of the Authority or delegated to the Authority's General Manager, including rules required by or promulgated under the Authority's Rate Order or GRP; provided that no amendment to or waiver of any provision of the Agreement, nor consent thereto, will be effective unless the same is in writing executed by both the Authority and the Buyer. Such amendment, waiver or consent will be effective only in the specific instance and for the specific purpose for which given. Nothing in this section shall prohibit any change to these Standard Terms of Water Supply Agreement required to comply with an order or a regulation of any State or Federal agency with jurisdiction over the Authority, and any such change shall be binding on the Buyer.

**Waiver.** Failure of either party at any time to require performance of any provision of the Agreement shall not limit the party's right to enforce such provision, nor shall any waiver of any breach of any provision constitute a waiver of any succeeding breach of that provision or a waiver of that provision itself.

**Counterparts.** The Agreement may be executed in any number of counterparts, each of which, when so executed and delivered, shall be an original; but such counterparts shall together constitute but one and the same Agreement.

**Consequential Damages.** In no event shall the parties or any of their affiliates, by reason of any of their respective acts or omissions relating to any of their obligations under the Agreement unless such acts or omissions are intentional, be

liable, whether in contract, tort, misrepresentation, warranty, negligence (but not gross negligence), strict liability or otherwise, for any special, indirect, incidental or consequential damages arising out of or in connection with the Agreement, or the performance or breach thereof; provided however that nothing in the foregoing statement shall be construed to be a waiver of sovereign or governmental immunity protections or defenses to which the Authority or Buyer may otherwise be entitled.

**Relationship of the Parties.** The Authority and a Buyer shall not be deemed in a relationship of partners or joint ventures by reason of the Agreement or the activities taken pursuant hereto. The Agreement is intended to secure and provide for the services of each party hereto as an independent contractor.

**Further Assurances.** In furtherance of the terms and conditions of the Agreement, each of the parties shall cooperate in good faith with each other in order to achieve the performance of their respective obligations under the Agreement.

**Force Majeure.** In the event either Buyer or the Authority (a "Party") is rendered unable, wholly or in part, by Force Majeure, to carry out any of its obligations under this Agreement, it is agreed that upon such Party's giving notice and full particulars of such Force Majeure in writing to the other Party as soon as possible after the occurrence of the Force Majeure, the obligations of the Party giving such notice, to the extent it is affected by Force Majeure and to the extent that due diligence is being used to resume performance, shall be suspended for the duration of the Force Majeure. Such cause shall, as far as possible, be remedied with all reasonable dispatch.

The term "Force Majeure," as used herein, shall include, but not be limited to, acts of God, strikes, lockouts or other industrial disturbances, acts of the public enemy, war, acts of terrorism, blockades, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, droughts, tornadoes, hurricanes, arrests and restraints of government and people, explosions, breakage or damage to machinery, pipelines or canals, and any other inability of either Party, whether similar to those enumerated or otherwise, and not within the control of the Party claiming such inability, which by the exercise of due diligence and care such Party could not have avoided.

Exhibit "C"

North Harris County Regional Water Authority Rate Order