



Water Conservation Plan

Adopted December 7, 2020

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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 approximately bounded by US 290 on the west, the Harris County line on the north (Spring Creek), Cypress Creek Parkway and Bammel-North Houston Road on the south, and the western shores of Lake Houston on the east. The Authority covers approximately 335 square miles and currently includes approximately 757,000 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 Road on the south, and the western shores of Lake Houston on the east. The Authority covers approximately 335 square miles and includes approximately 757,000 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 335 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 1% per year for the next five years.

Active Connections

- The Authority meters all of its connections to its customers, which in turn currently serves a population of approximately 757,000.
- Within the next three years, the Authority will be adding 23 new connections and approximately five every year thereafter.

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 calendar years 2015 to 2019, the Authority has produced or purchased an average of approximately 790 million gallons ("MG") per month for use within its boundaries.
- In Calendar year 2019, the Authority sold a total of approximately 9,140 MG and transferred an additional 598 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 2019, based on the total water delivered by the Authority to its customers, the Authority provided an average of approximately 121.33 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. The Authority is contracted to receive up to 144 MGD from the City of Houston beginning in calendar year 2025.

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 80.6 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.

Source of Water	Fee Due to NHCRWA
Authority Water	\$4.70 per 1,000 gallons
Water pumped from a Non-Exempt Well	\$4.25 per 1,000 gallons
Imported Water	\$4.25 per 1,000 gallons

Water Conservation Goals

The Authority has set five-year and ten-year targets of 129 GPCD for 2026 and 127 GPCD for 2031. The Authority's targets are primarily driven by the targets of the City of Houston. The City of Houston has set a target of 127 GPCD for 2024. 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 unbillable water.

Reservoir System Operating Plan

- The Authority does not own or operate any reservoirs.

Education Programs

- Media Campaign -

The Authority publishes an annual newsletter, WATERLINES, which contains feature articles with "Reduce, Reuse, Recycle" themes. The newsletter has been direct mailed to at least 150,000 single family homes within the NHCRWA boundaries every year since 2000. The Authority has also published and distributed to the retail water suppliers approximately 250,000 bill inserts (i.e. storm water runoff pollution, irrigation, improper disposal of wipes [No Wipes in the Pipes]) and 160,000 brochures (i.e. home and garden water efficiency tips, Kid's conservation tips) each year. The Authority maintains their website (<http://www.nhcrwa.com>) that contains extensive water conservation information and participates in the Save Water Texas Coalition site, community events, and related programs. In addition, NHCRWA actively promotes water efficiency in social media (e.g., Face Book, Twitter, etc.).

- 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 2nd, 4th and 7th 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, also available electronically on DVDs, reaches more than 7,000 2nd and 4th grade students within the Authority's boundaries each school year. Additionally, the Authority operates two Mobile Teaching Labs that contain hands-on exhibits about water and water conservation that

participate in community events sponsored by MUDs and travel to local elementary schools, where they are 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.

Alternative Water (Reuse Water)

- On January 8, 2018, the Authority Board passed a resolution adopting its Second Amended Alternative Water Use Incentive Program (the "Program"). The Program authorizes the Authority to enter into a written contract ("Contract") with the owner of a source of alternative water ("Owner") and/or a person engaging in Alternative Water Use ("Purchaser"). Upon completion of construction and placing in service an Alternative Water Use System (the "System"), the Authority will issue credits against Authority Fees otherwise owed to the Authority (Alternative Water Use Credits) to the Owner and/or Purchaser in the amount of \$25,000 or 10% of the total capital cost of the System, whichever is greater. Thereafter, the Authority will issue Alternative Water Use Credits for metered Alternative Water Use at a rate equal to one-half (1/2) of the rate then being charged by the Authority for "Water Pumped from a Non-Exempt Well," as such rate is stated in the Authority's then-current Pricing Policy. Alternative Water Use Credits will be issued for 20 years from the date of the Contract or until the total amount of credits issued equal the total capital cost of the System, whichever comes first.
- As of October 1, 2020, the Authority has entered into Contracts for 11 such Systems, with a total Capital Cost of \$15,954,261. These Systems will provide alternative water for 17 utility districts and 4 golf courses within the Authority.

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 (1) (I), 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 December 7, 2020. 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 7th day of December, 2020, at the regular meeting place thereof, and the roll was called of the members of the Board, to-wit:

Alan J. Rendl	President
Kelly P. Fessler	Vice President
Lenox A. Sigler	Secretary
Ron Graham	Assistant Secretary
James D. Pulliam	Treasurer/Investment Officer

All members of the Board were present, thus constituting a quorum. Whereupon, among other business, the following was transacted at such meeting:

RESOLUTION ADOPTING 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

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 7th day of December, 2020.


Secretary, Board of Directors

(AUTHORITY SEAL)



RESOLUTION ADOPTING 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 76th Legislature, as amended and codified as Chapter 8888, Texas Special Districts Local Laws Code (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 the Authority has carefully considered prior Water Conservation Plans adopted by the Authority, 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 on **Exhibit "A"** to this Resolution, and the provisions of the Plan shall be implemented immediately and enforced as rules of the Authority.

Section 3. 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 4. Submission. The Authority shall submit the Plan to the Executive Administrator of the TWDB and to the Region H Water Planning Group, with a copy also being provided to the appropriate officer/utility official of the City of Houston.

Section 5. Five (5) Year Review. The Authority shall review and update the Plan by December 2025 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.

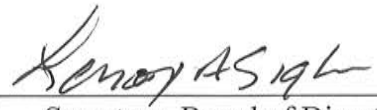
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PASSED AND APPROVED this 7th day of December, 2020.

NORTH HARRIS COUNTY REGIONAL WATER
AUTHORITY

By: 
President, Board of Directors

ATTEST:

By: 
Secretary, Board of Directors

(AUTHORITY SEAL)



Appendix B
Water Utility Profile



Texas Commission on Environmental Quality

Water Availability Division

MC-160, P.O. Box 13087 Austin, Texas 78711-3087

Telephone (512) 239-4691, FAX (512) 239-2214

Utility 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.

Water users can find best management practices (BMPs) at the Texas Water Development Board's website <http://www.twdb.texas.gov/conservation/BMPs/index.asp>. The practices are broken out into sectors such as Agriculture, Commercial and Institutional, Industrial, Municipal and Wholesale. BMPs are voluntary measures that water users use to develop the required components of Title 30, Texas Administrative Code, Chapter 288. BMPs can also be implemented in addition to the rule requirements to achieve water conservation goals.

Contact Information

Name: North Harris County Regional Water Authority

Address: 3648 Cypress Creek Parkway, Suite 110, Houston, TX 77068

Telephone Number: (281) 440-3924 Fax: (281) 440-4104

Water Right No.(s): None

Regional Water
Planning Group: H

Person responsible
for implementing
conservation program: Jun Chang, P.E., D.WRE Phone: (281) 440-3924

Form Completed By: Michael Baugher, P.E.

Title: Associate Principal

Signature: _____ Date: / /

A water conservation plan for wholesale public water suppliers must include the following requirements (as detailed in 30 TAC Section 288.5). If the plan does not provide information for each requirement, you must include in the plan an explanation of why the requirement is not applicable.

Utility 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)

See Exhibit 1.

2. Current population of service area:

Estimated 2020 population is 757,000.

3. Current population served for:

a. Water - 282,522

b. Wastewater - None

4. Population served for previous five years:

<i>Year</i>	<i>Population</i>
2015	273,687
2016	275,896
2017	278,105
2018	280,313
2019	282,522

5. Projected population for service area in the following decades:

<i>Year</i>	<i>Population</i>
2020	757,000
2030	808,000
2040	850,000
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. Customer 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.

<i>Wholesale Customer</i>	<i>Contracted Amount (Acre-feet)</i>	<i>Previous Year Amount of Water Delivered (acre- feet)</i>
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):

<i>Year</i>	<i>Treated Water</i>	<i>Raw Water</i>
2015	28,604.595	0
2016	30,337.255	0
2017	30,134.859	0
2018	28,110.646	0
2019	28,418.034	0
Totals	145,605.389	0

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:

<i>Year</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>
<i>Month</i>					
January	1,785.200	1,948.268	1,949.143	1,783.107	1,385.205
February	1,706.275	2,121.132	1,948.775	1,536.498	1,836.972
March	2,039.083	2,393.913	2,284.636	1,850.009	1,868.658
April	2,027.860	2,236.446	2,440.763	2,363.872	2,338.934
May	2,241.328	2,466.646	2,939.290	2,626.504	2,432.087
June	2,393.947	2,422.420	2,753.574	3,284.920	2,259.978
July	2,903.728	2,898.944	2,868.019	2,930.194	2,683.867

August	<u>2,961.030</u>	<u>2,766.779</u>	<u>2,557.620</u>	<u>2,822.292</u>	<u>3,187.658</u>
September	<u>2,784.729</u>	<u>2,643.496</u>	<u>2,352.158</u>	<u>2,362.813</u>	<u>2,781.418</u>
October	<u>2,874.826</u>	<u>3,047.843</u>	<u>2,719.758</u>	<u>1,967.661</u>	<u>2,475.726</u>
November	<u>2,056.931</u>	<u>2,504.476</u>	<u>2,399.201</u>	<u>1,781.211</u>	<u>1,916.653</u>
December	<u>1,943.530</u>	<u>2,050.652</u>	<u>1,948.320</u>	<u>1,766.127</u>	<u>1,807.763</u>
Totals	<u>27,718.467</u>	<u>29,501.015</u>	<u>29,161.256</u>	<u>27,075.207</u>	<u>26,974.919</u>

2. Wholesale population served and total amount of water diverted for **municipal use** for the previous five years (in acre-feet):

<i>Year</i>	<i>Total Population Served</i>	<i>Total Annual Water Diverted for Municipal Use</i>
2015	273,687	27,718.467
2016	275,896	29,501.015
2017	278,105	29,161.256
2018	280,313	27,075.207
2019	282,522	26,974.919

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, 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 SW Demand (MGD)</u>
2025	60%	120	72
2035	80%	127	102

III. WATER SUPPLY SYSTEM DATA

A. *Projected Water Demands*

List all current water supply sources and the amounts authorized (in acre feet) with each.

<i>Water Type</i>	<i>Source</i>	<i>Amount Authorized</i>
Surface Water	N/A	0
Groundwater	3 wells in Gulf Coast Aquifer	4,480.575 (maximum)
Other	Contract City of Houston - Lake 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 NOT APPLICABLE

A. Wastewater System Data (if applicable)

The North Harris County Regional Water Authority provides no wastewater service.

1. Design capacity of wastewater treatment plant(s) (MGD):

2. Briefly describe the wastewater system(s) of the area serviced by the wholesale public water supplier. Describe how treated wastewater is disposed. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and the receiving stream if wastewater is discharged.

B. Wastewater Data for Service Area (if applicable) - N/A

1. Percent of water service area served by wastewater system: %
2. Monthly volume treated for previous five years (in 1,000 gallons):

<i>Year</i>					
<i>Month</i>					
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Totals					

Water Conservation Plan

In addition to the description of the wholesaler's service area (profile from above), a water conservation plan for a wholesale public water supplier must include, at a minimum, additional information as required by Title 30, Texas Administrative Code, Chapter 288.5. Note: If the water conservation plan does not provide information for each requirement an explanation must be included as to why the requirement is not applicable.

A. Specific, Quantified 5 & 10-Year Targets

The water conservation plan must include specific, quantified 5-year and 10-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day for the wholesaler's service area, maximum acceptable water loss, and the basis for the development of these goals. Note that the goals established by a wholesale water supplier under this subparagraph are not enforceable. These goals must be updated during the 5-year review and submittal.

B. Measuring and Accounting for Diversions

The water conservation plan must include a description as to which practice(s) and/or device(s) will be utilized to measure and account for the amount of water diverted from the source(s) of supply.

C. Record Management Program

The water conservation plan must include a monitoring and record management program for determining water deliveries, sales, and losses.

D. Metering/Leak-Detection and Repair Program

The water conservation plan must include a program of metering and leak detection and repair for the wholesaler's water storage, delivery, and distribution system.

E. Contract Requirements for Successive Customer Conservation

The water conservation plan must include a requirement in every water supply contract entered into or renewed after official adoption of the water conservation plan, and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements of Title 30 TAC Chapter 288. If the customer intends to resell the water, then the contract between the initial supplier and customer must provide that the contract for the resale of the water must 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 the provisions of this chapter.

F. Reservoir Systems Operations Plan

The water conservation plan must include a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin. The reservoir systems operations plan shall include optimization of water supplies as one of the significant goals of the plan.

G. Enforcement Procedure and Official Adoption

The water conservation plan must include a means for implementation and enforcement, which shall be evidenced by a copy of the ordinance, rule, resolution, or tariff, indicating official adoption of the water conservation plan by the water supplier; and a description of the authority by which the water supplier will implement and enforce the conservation plan.

H. Coordination with the Regional Water Planning Group(s)

The water conservation plan must include documentation of coordination with the regional water planning groups for the service area of the wholesale water supplier in order to ensure consistency with the appropriate approved regional water plans.

Example statement to be included within the water conservation plan:

The service area of the _____ (name of water supplier) is located within the _____ (name of regional water planning area or areas) and _____ (name of water supplier) has provided a copy of this water conservation plan to the _____ (name of regional water planning group or groups).

I. Plan Review and Update

A wholesale water supplier shall review and update its water conservation plan, as appropriate based on an assessment of previous 5-year and 10-year targets and any other new or updated information. A wholesale water supplier shall review and update the next revision of its water conservation plan no later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

V. ADDITIONAL CONSERVATION STRATEGIES

Any combination of the following strategies shall be selected by the water wholesaler, in addition to the minimum requirements of 30 TAC §288.5(1), if they are necessary in order to achieve the stated water conservation goals of the plan. The commission may require by commission order that any of the following strategies be implemented by the water supplier if the commission determines that the strategies are necessary in order for the conservation plan to be achieved:

1. Conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;
2. A program to assist agricultural customers in the development of conservation, pollution prevention and abatement plans;
3. A program for reuse and/or recycling of wastewater and/or graywater;
4. Any other water conservation practice, method, or technique which the wholesaler shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

VI. WATER CONSERVATION PLANS SUBMITTED WITH A WATER RIGHT APPLICATION FOR NEW OR ADDITIONAL STATE WATER

Water Conservation Plans submitted with a water right application for New or Additional State Water must include data and information which:

1. support the applicant's proposed use of water with consideration of the water conservation goals of the water conservation plan;
2. evaluates conservation as an alternative to the proposed appropriation; and
3. evaluates any other feasible alternative to new water development including, but not limited to, waste prevention, recycling and reuse, water transfer and marketing, regionalization, and optimum water management practices and procedures.

Additionally, it shall be the burden of proof of the applicant to demonstrate that no feasible alternative to the proposed appropriation exists and that the requested amount of appropriation is necessary and reasonable for the proposed use.

Appendix C

Wholesale Customers, Amount of Annual Contract, and Amount of Annual Use

Wholesale Customer	Contracted Amount (acre-feet)	Previous Year Amount of Water Delivered (acre-feet)
AQUA TEXAS, INC. (CANDELIGHT HILLS)	No Contract	265.483
BAMMEL UD	No Contract	299.581
BILMA PUD	234.110	496.895
BRIDGESTONE MUD	No Contract	1896.969
CHARTERWOOD MUD	No Contract	488.462
CNP UD	No Contract	994.048
CY-CHAMP PUD	No Contract	482.432
CYPRESS FOREST PUD	No Contract	1005.431
CYPRESS-KLEIN UD and HARRIS COUNTY MUD 316	No Contract	595.376
CYPRESSWOOD UD and HARRIS COUNTY WCID 132	No Contract	424.601
FAULKEY GULLEY MUD	No Contract	785.103
FOUNTAINHEAD MUD	672.086	447.768
GRANT ROAD PUD	No Contract	343.733
HARRIS COUNTY FWSD 52	No Contract	592.819
HARRIS COUNTY MUD 16	734.814	452.010
HARRIS COUNTY MUD 18	No Contract	420.323
HARRIS COUNTY MUD 24	No Contract	991.636
HARRIS COUNTY MUD 44	No Contract	251.661
HARRIS COUNTY MUD 86	No Contract	495.118
HARRIS COUNTY MUD 104	No Contract	424.166
HARRIS COUNTY MUD 191	235.230	447.277
HARRIS COUNTY MUD 202	No Contract	269.512
HARRIS COUNTY MUD 211 and 233	280.230	241.481

Wholesale Customer	Contracted Amount (acre-feet)	Previous Year Amount of Water Delivered (acre-feet)
HARRIS COUNTY MUD 275	No Contract	117.121
HARRIS COUNTY MUD 286	No Contract	505.424
HARRIS COUNTY MUD 367 and 383	1344.173	701.433
HARRIS COUNTY MUD 368	No Contract	847.107
HARRIS COUNTY MUD 468	1,209.755	669.962
HARRIS COUNTY WCID 91	No Contract	252.769
HARRIS COUNTY WCID 109	No Contract	592.887
HARRIS COUNTY WCID 110	No Contract	863.366
HARRIS COUNTY WCID 114	No Contract	696.400
HARRIS COUNTY WCID 116	No Contract	611.447
HARRIS COUNTY WCID 119	No Contract	707.252
HEATHERLOCH MUD	1048.455	362.076
KLEIN PUD	No Contract	288.426
KLEINWOOD MUD	No Contract	515.253
LOUETTA NORTH PUD	No Contract	479.142
MALCOMSON ROAD UD	750.496	1040.671
NORTHWEST HARRIS CO. MUD 5	No Contract	562.253
NORTHWEST HARRIS CO. MUD 6	No Contract	259.870
NORTHWEST HARRIS CO. MUD 20	No Contract	386.032
NORTHWEST HARRIS CO. MUD 21 and 22	369.647	710.434
NORTHWEST HARRIS CO. MUD 23	672.086	221.306
NORTHWEST HARRIS CO. MUD 24	No Contract	199.947

Wholesale Customer	Contracted Amount (acre-feet)	Previous Year Amount of Water Delivered (acre-feet)
NORTHWEST HARRIS CO. MUD 30	No Contract	397.144
NORTHWEST HARRIS CO. MUD 36	No Contract	314.735
PONDEROSA FOREST UD	168.022	227.898
PRESTONWOOD FOREST UD	No Contract	526.307
SPRING CREEK FOREST PUD	No Contract	240.616
TERRANOVA WEST MUD and LOUETTA RD UD	No Contract	494.093
WESTADOR MUD	No Contract	489.490

Exhibits

Exhibit 1
North Harris County Regional Water Authority

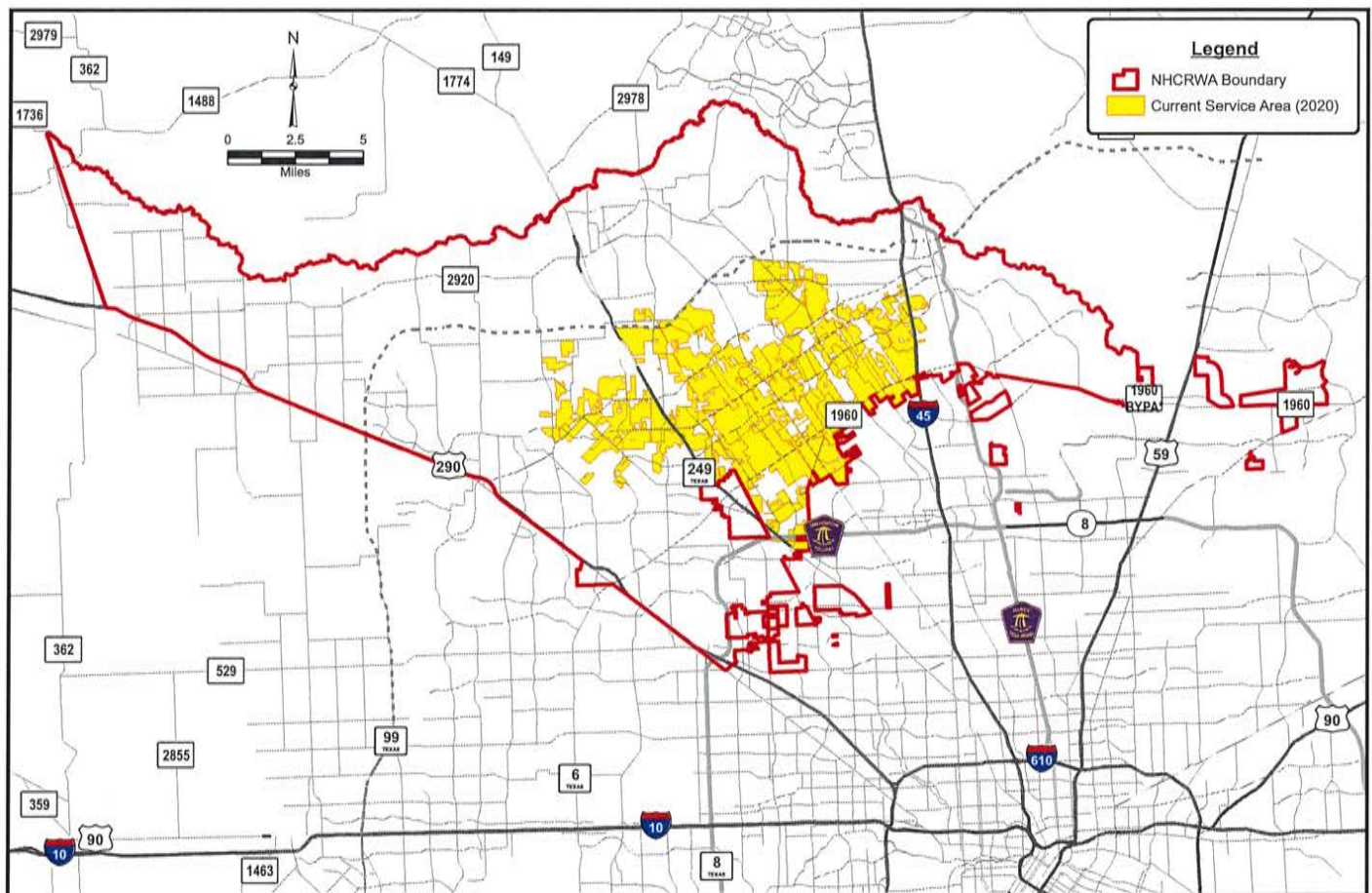


Exhibit 2
System Schematic

