

Water Conservation Plan Annual Report

Retail Water Supplier

CONTACT INFORMATION

Name of Entity: HARRIS COUNTY MUD No 165

Public Water Supply Identification Number (PWS ID): 1012187

Certificate of Convenience and Necessity (CCN) Number: _____

Surface Water Rights ID Number: _____

Wastewater ID Number: WQ00114583001

Check all that apply:

- Retail Water Supplier
- Wholesale Water Supplier
- Wastewater Treatment Utility

Address: 5870 Hwy 6 North, Suite 215 City: Houston Zip Code: 77084

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Regional Water Planning Group: H [Map](#)

Groundwater Conservation District: _____ [Map](#)

Form Completed By: Chris Hoffman Title: Operations Manager

Date: 4/7/16

Reporting Period (calendar year):

Period Begin (mm/yyyy) 01/2015 Period End (mm/yyyy) 01/2016

Check all of the following that apply to your entity:

- Receive financial assistance of \$500,000 or more from TWDB
- Have 3,300 or more retail connections
- Have a water right with TCEQ

SYSTEM DATA

Retail Customer Categories*

- Residential Single Family
- Residential Multi-family
- Industrial
- Commercial
- Institutional
- Agricultural

**Recommended Customer Categories for classifying your customer water use. For definitions, refer to Guidance and Methodology on Water Conservation and Water Use.*

1. For this reporting period, select the category(s) used to classify customer water use:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Residential Single Family | <input checked="" type="checkbox"/> Commercial |
| <input checked="" type="checkbox"/> Residential Multi-family | <input checked="" type="checkbox"/> Institutional |
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Agricultural |

2. For this reporting period, enter the number of connections for and the gallons of **metered retail water** used by each category. If the Customer Category does not apply, enter zero or leave blank. These numbers should be the same as those reported on the Water Use Survey.

Retail Customer Category	Number of Connections	Gallons Metered
Residential Single Family	6,264	511,615,000
Residential Multi-family	141	3,611,000
Institutional	7	3,670,100
Commercial	25	10,270,200
Industrial	0	0
Agricultural	113	79,981,000
Total Retail Water Metered¹	6,550	609,147,300

1. Residential + Industrial + Commercial + Institutional + Agricultural = Total Retail Water Metered

Water Use Accounting

	Total Gallons During the Reporting Period
Corrected Input Volume: The volume of treated water input to the distribution system from own production facilities. <i>Same as Line 13b of the Water Loss Audit.</i>	651,326,263
Corrected Treated Purchased Water Volume: The amount of treated purchased wholesale water transferred into the utility's distribution system from other water suppliers system. <i>Same as Line 14b of the Water Loss Audit.</i>	0
Corrected Treated Wholesale Water Sales Volume: The amount of treated wholesale water transferred out of the utility's distribution system, although it may be in the system for a brief time for conveyance reasons. <i>Same as Line 15b of the Water Loss Audit.</i>	0
Total System Input Volume: This is the sum of the corrected input volume plus corrected treated purchased water volume minus corrected treated wholesale water sales volume. <i>Same as Line 16 of the Water Loss Audit.</i>	651,326,263 <small>Produced + Imported – Exported = System Input</small>
Billed Metered: All retail water sold and metered. <i>Same as Line 17 of the Water Loss Audit (Calculated from values entered on Page 2).</i>	609,147,300
Other Authorized Consumption: Water that is authorized for other uses such as back flushing, line flushing, storage tank cleaning, fire department use, municipal government offices or municipal golf courses/parks. This water may be metered or unmetered. <i>Same as the total of Lines 18, 19, and 20 of the water loss audit.</i>	4,805,000
Total Authorized Consumption: All water that has been authorized for use. <i>Same as Line 21 of Water Loss Audit</i>	613,952,300 <small>Total Billed and Metered Retail Water + Other Authorized Consumption = Total Authorized Use</small>
Total Apparent Losses: Water that has been consumed but not properly measured or billed (losses due to customer meter inaccuracy, systematic data handling discrepancy and/or unauthorized consumption such as theft). <i>Same as Line 27 of the Water Loss Audit.</i>	21,257,923
Total Real Losses: Physical losses from the distribution system prior to reaching the customer destination (losses due to reported breaks and leaks, physical losses from system or mains and/or storage overflow). <i>Same as line 30 of the water loss audit.</i>	16,116,040

Total Water Loss	37,373,963 <small>Apparent + Real = Total Water Loss</small>
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Targets and Goals

Provide the **specific and quantified five and ten-year targets** as listed in your current Water Conservation Plan. Target dates and numbers should match your current Water Conservation Plan.

Achieve Date	Target for Total GPCD	Target for Residential GPCD	Target for Water Loss (expressed in GPCD)	Target for Water Loss Percentage (expressed in percentage)
Five-year target date: <u>2019</u>	80	80	5	6
Ten-year target date: <u>2024</u>	80	80	7	9

Gallons per Capita per Day (GPCD) and Water Loss

Provide current GPCD and water loss totals. To see if you are making progress towards your stated goals, compare these totals to the above targets and goals. Provide the population and residential water use of your service area.

Total System Input in Gallons	Permanent Population ¹	Total GPCD
651,326,263 Water Produced + Wholesale Imported - Wholesale Exported	19,650	91 (System Input ÷ Permanent Population) ÷ 365

1. Permanent Population is the total permanent population of the service area, including single family, multi-family, and group quarter populations.

Residential Use in Gallons (Single Family + Multi-family)	Residential Population ²	Residential GPCD
515,226,000	19,215	73 (Residential Use ÷ Residential Population) ÷ 365

2. Residential Population is the total residential population of the service area, including only single family and multi-family populations.

Total Water Loss in Gallons	Permanent Population	Water Loss	
		GPCD ³	Percent ⁴
37,373,963 Apparent + Real = Total Water Loss	19,650	5	6

3. (Total Water Loss ÷ Permanent Population) ÷ 365 = Water Loss GPCD
 4. (Total Water Loss ÷ Total System Input) x 100 = Water Loss Percentage

Water Conservation Programs and Activities

As you complete this section, review your utility's water conservation plan to see if you are making progress towards meeting your stated goals.

1. What year did your entity adopt or revise the most recent Water Conservation Plan? 2015

2. Does the Plan incorporate Best Management Practices? Yes No

3. Using the table below, select the types of Best Management Practices or water conservation and reuse strategies actively administered during this reporting period and estimate the savings incurred in implementing water conservation and reuse activities and programs. Leave fields blank if unknown. **Please separate reuse volumes from gallons saved.**

Methods and techniques for determining gallons saved are unique to each utility as they conduct internal effective cost analyses and long-term financial planning. Texas Best Management Practices can be found at TWDB's Water Conservation Best Management Practices [webpage](#). The [Alliance for Water Efficiency Water Conservation Tracking Tool](#) may offer guidance on determining and calculating savings for individual BMPs.

Best Management Practice	Check if Implemented	Estimated Gallons Saved	Estimated Gallons Reused
Conservation Analysis and Planning			
Conservation Coordinator	<input type="checkbox"/>		
Cost Effective Analysis	<input type="checkbox"/>		
Water Survey for Single Family and Multi-family Customers	<input type="checkbox"/>		
Financial			
Wholesale Agency Assistance Programs	<input type="checkbox"/>		
Water Conservation Pricing	<input checked="" type="checkbox"/>		
System Operations			
Metering New Connections and Retrofitting Existing Connections	<input checked="" type="checkbox"/>		
System Water Audit and Loss Control	<input checked="" type="checkbox"/>		
Landscaping			
Landscape Irrigation Conservation and Incentives	<input type="checkbox"/>		
Athletic Fields Conservation	<input type="checkbox"/>		
Golf Course Conservation	<input type="checkbox"/>		
Park Conservation	<input type="checkbox"/>		
Residential Landscape Irrigation Evaluation	<input type="checkbox"/>		
Education and Public Awareness			
School Education	<input checked="" type="checkbox"/>		
Public Information	<input checked="" type="checkbox"/>		
Small Utility Outreach and Education	<input type="checkbox"/>		
Partnerships with Nonprofit Organizations	<input type="checkbox"/>		
Rebate, Retrofit, and Incentive Programs			
Conservation Programs for ICI Accounts	<input type="checkbox"/>		

Residential Clothes Washer Incentive Program	<input type="checkbox"/>		
Water Wise Landscape Design and Conversion Programs	<input type="checkbox"/>		
Showerhead, Aerator, and Toilet Flapper Retrofit	<input type="checkbox"/>		
Residential Toilet Replacement Programs	<input type="checkbox"/>		
ICI Incentive Programs	<input type="checkbox"/>		
Conservation Technology & Reuse			
New Construction Graywater	<input type="checkbox"/>		
Rainwater Harvesting and Condensate Reuse	<input type="checkbox"/>		
Reuse for On-site Irrigation	<input type="checkbox"/>		
Reuse for Plant Washdown	<input checked="" type="checkbox"/>		
Reuse for Chlorination/Dechlorination	<input type="checkbox"/>		
Reuse for Industry	<input type="checkbox"/>		
Reuse for Agriculture	<input type="checkbox"/>		
Regulatory and Enforcement			
Prohibition on Wasting Water	<input type="checkbox"/>		
Other, please describe:			
Total Volumes		0	0

4. For this reporting period, estimate the savings from water conservation activities and programs.

Gallons Saved/Conserved	Gallons Recycled/Reused	Total Volume of Water Saved ⁵	Dollar Value of Water Saved ⁶
0	0	0	

5. Estimated Gallons Saved/Conserved + Estimated Gallons Recycled/Reused = Total Volume Saved

6. Estimate this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital costs due to conservation.

Comments or Explanations Regarding Data Entered in Sections Above

6. During this reporting period, did your rates or rate structure change? Yes No

Select the type of rate pricing structures used. Check all that apply.

<input type="checkbox"/>	Uniform Rates	<input type="checkbox"/>	Water Budget Based Rates	<input type="checkbox"/>	Surcharge - seasonal
<input type="checkbox"/>	Flat Rates	<input type="checkbox"/>	Excess Use Rates	<input type="checkbox"/>	Surcharge - drought
<input checked="" type="checkbox"/>	Inclining/Inverted Block Rates	<input type="checkbox"/>	Drought Demand Rates	<input type="checkbox"/>	Other, please describe:
<input type="checkbox"/>	Declining Block Rates	<input type="checkbox"/>	Tailored Rates		
<input type="checkbox"/>	Seasonal Rates	<input type="checkbox"/>	Surcharge - usage demand		

7. For this reporting period, select the public awareness or educational activities used.

	Implemented	Number/Unit
<i>Example: Brochures Distributed</i>	√	10,000/year
<i>Example: Educational School Programs</i>	√	50 students/month
Brochures Distributed	<input checked="" type="checkbox"/>	_____
Messages Provided on Utility Bills	<input checked="" type="checkbox"/>	_____
Press Releases	<input type="checkbox"/>	_____
TV Public Service Announcements	<input type="checkbox"/>	_____
Radio Public Service Announcements	<input type="checkbox"/>	_____
Educational School Programs	<input checked="" type="checkbox"/>	_____
Displays, Exhibits, and Presentations	<input type="checkbox"/>	_____
Community Events	<input type="checkbox"/>	_____
Social Media campaigns	<input type="checkbox"/>	_____
Facility Tours	<input type="checkbox"/>	_____
Other :	<input type="checkbox"/>	_____

Leak Detection and Water Loss

1. During this reporting period, how many leaks were repaired in the system or at service connections? 31

Select the main cause(s) of water loss in your system.

- Leaks and breaks
- Un-metered utility or city uses
- Master meter problems
- Customer meter problems
- Record and data problems
- Other: _____
- Other: _____

2. For this reporting period, provide the following information regarding meter repair:

Type of Meter	Total Number	Total Tested	Total Repaired	Total Replaced
Production Meters	3	3	0	0
Meters larger than 1 ½"	65	20	5	0
Meters 1 ½ or smaller	6,482	171	0	148

3. Does your system have automated meter reading? Yes No

Program Effectiveness and Drought

1. In your opinion, how would you rank the effectiveness of your conservation activities?

Customer Classification	Less Than Effective	Somewhat Effective	Highly Effective	Does Not Apply
Residential Customers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Industrial Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Institutional Customers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commercial Customers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural Customers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. During the reporting period, did you implement your Drought Contingency Plan?

Yes No

If yes, how many days were water use restrictions in effect? _____

If yes, check the reason(s) for implementing your Drought Contingency Plan.

- | | |
|--|--|
| <input type="checkbox"/> Water Supply Shortage | <input type="checkbox"/> Equipment Failure |
| <input type="checkbox"/> High Seasonal Demand | <input type="checkbox"/> Impaired Infrastructure |
| <input type="checkbox"/> Capacity Issues | <input type="checkbox"/> Other: |

3. Select the areas for which you would like to receive more technical assistance:

- | | |
|---|--|
| <input type="checkbox"/> Best Management Practices | <input type="checkbox"/> Educational Resources |
| <input type="checkbox"/> Drought Contingency Plans | <input type="checkbox"/> Water Conservation Annual Reports |
| <input type="checkbox"/> Landscape Irrigation | <input type="checkbox"/> Water Conservation Plans |
| <input type="checkbox"/> Leak Detection and Equipment | <input type="checkbox"/> Water IQ: Know Your Water |
| <input type="checkbox"/> Rainwater Harvesting | <input type="checkbox"/> Water Loss Audits |
| <input type="checkbox"/> Rate Structures | <input type="checkbox"/> Recycling and Reuse |

SUBMIT