



**WATER CONSERVATION
AND
EMERGENCY DEMAND MANAGEMENT PLAN**

REVISED APRIL 15, 2015

**WATER CONSERVATION AND EMERGENCY DEMAND
MANAGEMENT PLAN**

**HMW SPECIAL UTILITY DISTRICT OF HARRIS AND
MONTGOMERY COUNTIES**

Revised April 15, 2015

I. ADOPTION AND SUMMARY OF PLAN

A. ADOPTION OF PLAN

This Water Conservation and Emergency Demand Management Plan (the “Plan”) of the HMW Special Utility District (the “District”) was adopted by the HMW Water Supply Corporation on September 26, 1996, adopted by the District on May 14, 1998, with revisions, and thereafter amended on September 19, 2000, January 19, 2005, June 22, 2005 and May 20, 2009, May 16, 2012, and the above date. Copies of the Plan are available for review at the District’s offices during regular business hours.

B. DESCRIPTION OF SERVICE AREAS

The facilities of the District are located north of Houston, Texas in Harris and Montgomery Counties. The District office is located in Montgomery County, approximately five miles north of Tomball near Decker Prairie, Texas. Most of the areas served by the District are in the vicinity of Spring Creek, near State Highways No. 249 and 2920. All areas are east of U.S. Highway 290 and west of IH-45. District water wells and related facilities exist at thirty two separate locations and serve a total of seventy four subdivisions. Each of the thirty two water systems has a separate identification number from the Texas Commission for Environmental Quality (“TCEQ”).

Each of the District’s thirty two water systems is an independent system, served by one or more wells in the Coastal aquifer. One system, Shady Acres, does not have its own well, and water is purchased from an adjacent system. There is no elevated storage, and water pressure is provided by individual pressure tanks with air compressors. Most wells pump into ground storage tanks. Fifteen of the smaller systems do not have ground storage tanks, and their wells pump directly into the pressure tanks. Each system has chlorinators, equipment buildings, electrical controls, and fencing with gates at each site. The pipe diameters of the distribution systems vary from two inch to six inches, with most being three and four inch diameter pipes.

The District’s thirty two water systems serve a total of seventy four subdivisions. They are shown below by primary subdivision, TCEQ identification number and the additional subdivisions served by that system.

District Water Systems

1. Alice Acres (TCEQ I.D. No.1011236)
2. Allenwood (TCEQ I.D. No.1700131); also serving Walnut Creek Forest
3. Armadillo Woods/Magnolia Oaks (TCEQ I.D. No.1700447); also serving Pinion Creek
4. Brandywine Oaks (TCEQ I.D. No.1010887)
5. Brandywine Pines (TCEQ I.D. No.1011219)
6. Coe Country/Meadowood (TCEQ I.D. No.1700318); also serving Cripple Creek Farms, Lazywood, Woodlake, Lexington Estates, Victoria Station, Decker Heights, Montgomery County Industrial Park, Decker Prairie Industrial Park, Coe Acres, Foxwood, Leisurewood, Autumn Woods, Logtown, Redwood Place, Vallie Road & Decker Pines.
7. Coe Industrial Park (TCEQ I.D. No.1011845); also serving Rolling Meadows.
8. Cypress Crossing (TCEQ I.D. No.1010629)
9. Cypress Pass (TCEQ I.D. No.1011552)
10. Deer Ridge (TCEQ I.D. No.1700307)
11. Grant Road Estates (TCEQ I.D. No.1011996)
12. Holly Lake Estates (TCEQ I.D. No.1012794; also serving Holly Creek
13. Hunter's Retreat (TCEQ I.D. No.1700149); also serving Cripple Creek Farms North, Galleria Oaks I, Millwood, Galleria Oaks II & Greenwood Country, Villages of High Meadow Ranch, Sections 4 and 6.
14. House/Corral (TCEQ I.D. No.1012904)
15. Kickapoo Farms (TCEQ I.D. 1011766)
16. Kipling Oaks 1 (TCEQ I.D. No.1700228); also serving Pinehurst Village, Oakhill Acres, Oak Crest 2 & Cripple Creek Farms West
17. Kipling Oaks 2, 3, & 4 (TCEQ I.D. No.1700153); also serving Timbergreen
18. Mink Branch Valley (TCEQ I.D. No.1700150)
19. New Kentucky (TCEQ I.D. No.1012795)

20. Pleasant Forrest (TCEQ I.D. No.1700245); also serving Country Woods
21. Red Oak Terrace (TCEQ I.D. No.1010916); also serving McKinney Place
22. Rimwick Forrest (TCEQ I.D. No.1700156)
23. Rustic Oaks (TCEQ I.D. No.1700410)
24. Sendera Lake (TCEQ I.D. No.1700565); also serving Oak Crest 2
25. Shady Acres (TCEQ I.D. No.1700083)
26. Timberwilde (TCEQ I.D. No.1012367)
27. Tomball Industrial Park (TCEQ I.D. No.1011919)
28. Towering Oaks/Rosewood Hills (TCEQ I.D. No.1700317); also serving Woodloch, Hideaway Estates, Brushy Oaks, Timberlake Village & Bridle Creek.
29. Trailwood (TCEQ I.D. No.1011521)
30. Treichel Woods (TCEQ I.D. 1012397)
31. 2920 West (TCEQ I.D. No.1012276); also serving Rosehill Pines & Castle Hills
32. Willow Oaks (TCEQ I.D. No.1011812)

Some systems do not have ground storage tanks. At those sites, wells pump directly into the pressure tanks and then into the local distribution system. At those locations, equipment failures and high water demand will have a greater impact on the ability to provide water during high demand, drought and other severe conditions. Those systems include Brandywine Oaks, Coe Industrial Park, Cypress Crossing, Grant Road, Holly Lake Estates, House Corral, Mink Branch, Rustic Oaks, Tomball Industrial Park and Woodloch.

A copy of the District's most recent Conservation Utility Profile, Texas Water Development Board ("TWDB") Form TWDB-1965, is attached hereto as Exhibit A. The profile refers to the goals set forth below.

C. GOALS OF THE WATER CONSERVATION PLAN

The Plan includes the District's ongoing Water Conservation Program and its Emergency Water Demand Management Plan. They are set forth in Sections II. and III., respectively. Each has been adopted by the Board of Directors of the District. Copies of the plans have been provided to the TWDB, TCEQ, North Harris County Regional Water Authority and San Jacinto River Authority.

The following are the goals of the Water Conservation Program:

1. To insure that demand for water does not exceed the amount available from water wells in any of the subdivisions served by the District;
2. To provide education and public information that encourages the conservation of water, in support of the Plan's goals to reduce water consumption;
3. To limit peak water use during the summer months;
4. To reduce water not accounted for to less than 10.0 percent of the water pumped from wells; and
5. To maintain water consumption in each water system at or below the system's five year average annual usage, adjusted for population growth and changes to the District's customer base.

The goals of the Emergency Water Demand Management Plan are to establish procedures initiated by defined Trigger Conditions that prevent excessive use of water supply by any customer during periods of equipment failure, high demand, or low supply, and to obtain additional reductions from normal water usage during those periods. Specific goals are further specified in Section III. below.

The policies established by the Plan are adopted to efficiently manage the water available to the District for the mutual benefit of its customers. Such management and use of the water produced by the District will benefit all District customers by optimizing District operations, extending the operational life of facilities and assuring the availability of water for current and future District customers. The District's five year and ten year water conservation targets and goals are set forth on Exhibit B hereto.

D. WATER CONSERVATION COMMITTEE

To maintain the focus on the District's water conservation goals, provide oversight for the Water Conservation Program and expedite decisions on water rationing, a Water Conservation Committee consisting of two Board Members and the District's General Manager and Controller will be appointed by the Board of Directors. The District's President shall designate a director member to chair the committee. The committee shall review all water conservation efforts and emergency water demand management actions undertaken under the Plan, report to the Board as required and make appropriate recommendations on all water conservation matters. Not less often than annually, and at other times as required, the committee will report to the Board of Directors on the amount of water not accounted for during the preceding calendar year, the results and impact of the Plan, including any water rationing, the level of the District's water consumption, by water system, the District's progress in the achievement of the goals of the Plan and the need, if any, to revise the Plan based on changes in the District's service area population, distribution system, water supply and progress in the achievement of the goals of the Plan.

The Water Conservation Committee shall develop, maintain, and revise a Water Conservation Packet for each new District customer and supervise an annual mailing to current customers, which shall be mailed not later than March 31 in each calendar year. The annual mailing will remind customers of

the necessity for conservation, discuss means to achieve it and advise customers of state, federal and local conservation requirements, including this Plan and any revisions thereto. As a part of each annual report, the Committee will (1) report on the availability of water conservation information, (2) recommend to the Board of Directors any necessary revisions to the information contained in new customer and annual mailing packets, (3) recommend the delivery of additional appropriate information to all customers, as appropriate, and (4) recommend any additional educational activities designed to promote water conservation.

II. WATER CONSERVATION PROGRAM

A. SUMMARY OF PLAN ELEMENTS

The District's Water Conservation Program is composed of the following elements:

1. **Information Programs:** The District shall provide a New Customer Packet to new customers when they apply for and receive service. This New Customer Packet will be assembled from available information on water reuse, water use reduction, leak prevention, xeriscaping and other water conservation methods, as provided by the TWDB, the District, the American Water Works Association, the Lone Star Groundwater Conservation District, the San Jacinto River Authority, the Harris-Galveston Coastal Subsidence District, the North Harris County Regional Water Authority and other sources.

The District shall provide mail current educational materials regarding water conservation, including the materials provided to New Customers, to all customers on an annual basis, and provide at least one additional educational activity to promote water conservation by its customers, not less often than annually.

In addition, the District will develop and maintain a "Fact Sheet" providing information on the District's conditions and procedures for water rationing to be given to all new and current customers to provide an opportunity for advance preparation for a declaration of water rationing under the Emergency Demand Management Plan before a declaration occurs.

2. **Conservation - Oriented Rate Structure:** The District's water rate structure contains rates, based primarily on the level of customer usage, and includes rates that encourage water conservation. Such rates appear in Section C. of the District's Rate Tariff and Order dated January 21, 2015, and its subsequent revisions (the "Tariff"). In its discretion, the Board of Directors may approve different water conservation rate structures, such as increasing block rates, seasonal rates or other rate structures, to encourage the appropriate use and conservation of water, or to reduce peak demand for lawn watering and other summer, dry weather or other high demand water use.
3. **Universal Metering and Repair Program:** In general all customers on the system will be metered individually. Master meters for multi-family dwellings or mobile home parks and similar locations will be allowed at the General Manager's discretion.

The following program of meter testing and repair shall be followed.

Meter Repair Program

Water System Master Meters Test each year and recalibrate as necessary.

Meters under 1" Size	Replace each meter every 10 years with a rehabilitated unit, beginning with 10 percent of the meters during the first year of District operations and an additional 10 percent of all meters in each succeeding year.
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Meters of 1" Size and Greater	Test each meter once a year.
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The District will also test a customer's meter at their request, as provided by the District's Rate Tariff and Order. Based on water loss records and other factors, the General Manager will establish a list of priority subdivisions for meter testing and replacement.

4. **Facility Maintenance and Repair**: The District will reduce water losses by an ongoing program of facility maintenance, repair and replacement. An accounting of the amount of water purchased versus the amount of water billed to customers shall be kept on a monthly basis for each water system. The goal is to reduce and maintain unaccounted water to less than 10.0 percent of the water measured at the subdivision or system master meter.
5. **Pressure Reduction**: The District will maintain delivery pressure at meters under 80 psi unless it impacts the delivery of water throughout the remainder of the system.
6. **Water Recycling and Reuse Programs**: Customers with swimming pools will be encouraged to use recirculating filters, reuse the backwash on lawns or other purposes that do not require potable water, and insulate any hot water lines. Car washes will be encouraged to recycle wash water, consistent with the requirements of existing commercial equipment. Laundries and other high water use businesses will be encouraged to make beneficial and alternate uses of their wastewater.
7. **Plumbing Fixtures**: All new and replacement plumbing fixtures shall comply with the standards set by federal, state and local law. All customers shall be encouraged to comply with the following minimum standards, regardless of their adoption by law, regulation or ordinance:
 - a. faucet aerators with maximum flow rate of 2.2 gallons per minute (gpm) at 60 pound per square inch (psi),
 - b. shower head flow rates less than 2.75 gpm at 80 psi,
 - c. urinal flush valves with maximum flow rate of 1 gallon per flush,
 - d. toilets with maximum 1.6 gallons per flush, and

- e. self-closing drinking fountain valves.

In addition, the District may adopt additional conservation methods that apply to the District's water systems, based on the voluntary Best Management Practices Guide adopted by the TWDB and other recognized sources.

Notwithstanding any other provision of this Plan, each District customer shall comply with all applicable provisions of the Tariff and other policies of the District that apply to water conservation and emergency water demand management.

B. IMPLEMENTATION

The Plan shall be implemented by the District by its Board of Directors and Water Conservation Committee, as further provided by Section I.D. above. In addition to the annual report of the Water Conservation Committee, the General Manager of the District shall (1) provide an annual report of the District's performance under Paragraphs II.A.3. and II.A.4. for each calendar year, (2) supervise the development of data for the District in support of its water conservation goals and progress toward their achievement, and (3) assist the Water Conservation Committee in its activities, as requested.

C. ANNUAL REPORTING

The District shall submit reports to the TWDB describing the implementation and status of the District's water conservation program, including the Plan and its implementation procedures, pursuant to 31 TAC §363.71 (a)(2). If required, the report shall be timely filed by the District as provided by the terms of any long term financing through the TWDB.

III. EMERGENCY WATER DEMAND MANAGEMENT PLAN

A. INTRODUCTION

The overall goal of the Emergency Water Demand Management Plan is to reduce water use in response to emergency conditions to assure the availability of water for all customers. In cases of extreme drought, periods of high usage, or reduction of the District's ability to supply water due to equipment failure, restrictions may be implemented to limit water usage and encourage customer conservation.

B. DECLARATION OF WATER RATIONING

When a water supply shortage at one or more of the District's water systems becomes a Trigger Condition, as defined in Section III.D., and normal water use patterns will no longer be possible for such systems, the appropriate water rationing program will be implemented by the Board of Directors, at any regular or emergency meeting, or by its designee. If an emergency condition occurs, such as a sudden or unforeseen decrease in water production capability, or a Triggering Condition occurs between meetings of the Board of Directors, the appropriate rationing program may be implemented by the President, Vice-President, Chairman of the Water Conservation Committee, designated members of the District's

management or such other person as the Board may designate. The TCEQ will be notified by telephone or online reporting prior to or concurrently with the issuance of notice to customers.

C. NOTICE REQUIREMENTS

Notice of the implementation of rationing must be provided to all affected customers of the affected system, by either hand-delivery or mail. For hand delivered notices, enforcement can begin 24 hours after delivery. For mailed notices, enforcement can begin 72 hours after mailing. If an emergency condition is declared because of an equipment failure, line break or other emergency condition, enforcement may begin immediately, provided, that notice to all affected customers shall be provided as soon as possible.

The notice provided to the customer will contain the following information:

1. The date and time that rationing begins;
2. The stage of rationing and restrictions to be implemented; and
3. The penalties for violation.

A copy of the notice will be provided to the TCEQ.

Written notice of the conclusion of mandatory rationing will not be provided by the District. When the District determines that mandatory rationing is no longer required, the District will post signs to such effect in the subdivisions subject to mandatory rationing.

D. TRIGGER AND EMERGENCY CONDITIONS

An emergency condition is a major equipment failure, line break or other condition that interrupts the safe and timely delivery of water service, or that otherwise jeopardizes the health and safety of a water user.

Trigger Conditions are based on either the failure of equipment or the loss of the daily maximum water supply, which is the daily production capability of all producing wells, assuming constant 24 hour pumping at a recently tested pumping rate. The respective Trigger Conditions for Stages 1, 2, 3 and 4 are as follows:

1. **STAGE 1:**
 - a. Failure of a major component of the system or an event which reduces the minimum residual pressure in the system below 30 psi for a period of 24 hours or longer;
 - b. Water consumption at 75.0% percent of daily maximum water supply for 3 consecutive days for systems with ground storage tanks or 65 percent of daily maximum supply for 3 consecutive days for systems without ground storage tanks; or

- c. Reduction of daily maximum water production to a level that is 25.0% percent or less above the daily average consumption for the previous month.

2. **STAGE 2:**

- a. Failure of a major component of the system or an event which reduces the minimum residual pressure in the system below 20 psi for a period of 24 hours or longer;
- b. Water consumption at 80.0% percent of daily maximum water supply for 3 consecutive days for systems with ground storage tanks or 70 percent of daily maximum supply for 3 consecutive days for systems without ground storage tanks; or
- c. Reduction of daily maximum water production to a level that is 20.0% percent or less above the daily average consumption for the previous month.

3. **STAGE 3:**

- a. Failure of a major component of the system or an event which reduces the minimum residual pressure in the system below 20 psi for a period of 24 hours or longer;
- b. Water consumption at 90.0% percent of daily maximum water supply for 3 consecutive days for systems with ground storage tanks or 80 percent of daily maximum supply for 3 consecutive days for systems without ground storage tanks;
- c. Reduction of daily maximum water production to a level that is 10.0% or less above the average daily consumption for the previous month; or
- d. The water level in any of the water storage tanks cannot be replenished for 3 consecutive days, or the highest recorded water level drops 2 feet or more for 3 consecutive days.

4. **STAGE 4:**

- a. Failure of a major component of the system or an event which reduces the minimum residual pressure in the system below 20 psi for a period of 24 hours or longer;
- b. Water consumption at 95.0% of daily maximum water supply for 3 consecutive days;
- c. Water consumption at 100.0% of the maximum available and the water storage level in any system drops during any single 24 hour period; or
- d. Any other unforeseen event that may cause an imminent health or safety risk to the public.

In addition to the specific Trigger Conditions set forth above for Stages 1 through 4, the District may implement rationing under any or all of Stages 1 through 4 if it determines that the projected water usage for any of the District's water systems is likely to exceed a usage or production limitation imposed on any such system by a lawful regulatory authority for any measurement period adopted thereby.

Also, if an entity that manages an approved Groundwater Reduction Plan that the District has joined by contract has commenced water rationing under its own emergency demand management plan, the District shall:

1. In its discretion, begin conservation measures under Stages 2, 3 or 4, if not then in effect, that effectively support and are consistent with the rationing goals of the entity; and
2. Maintain such measures, as appropriate, until the entity terminates water rationing under its own emergency demand management plan.

In exercising its discretion, the District may consider the physical connection, if any, proximity and water sources of the District's affected water systems to those of the entity, together with other factors that affect the District's effective support of the entity's water rationing goals.

E. STAGES OF RATIONING AND WATER USE RESTRICTIONS

If possible, the District will implement voluntary rationing by an announcement of the necessity for voluntary rationing under Stage 1. Unless an extreme or sudden serious reduction in water production occurs, the District will initially adopt mandatory rationing under Stage 2. Thereafter, Stages 3 and 4 will be declared if demand is not sufficiently alleviated. The stages of rationing are further described as follows:

1. **STAGE 1 - MILD:** The purpose of Stage 1 is to achieve water use reduction by voluntary limitations on water use to the amounts minimally necessary for health, business and basic residential use. Its goal is to reduce water consumption by 5.0% of the daily maximum system water supply, unless otherwise specified by the District's board of directors or its designee. Notice of Stage 1 voluntary rationing shall be made as provided in Section B. above.

During Stage 1 voluntary rationing, District customers may take one or more of the following steps:

- a. Refrain from any outdoor watering of lawns, gardens, landscaped areas, trees, and other plants.
- b. Assure that no water is inadvertently applied to or directed upon the surface of any sidewalk, street, driveway or other paved areas.
- c. Refrain from washing any sidewalk, street, driveway or other paved area, except to alleviate a fire hazard.

- d. Prevent runoff water from flowing into a street, gutter, ditch or storm drain.
- e. Inspect for and promptly repair any controllable water leaks on the customer side of the District's meter.
- f. Implement any other indoor or outdoor conservation procedure, recycling or reuse program from available information from HMW, TWDB, American Water Works Association, Harris-Galveston Coastal Subsidence District, North Harris County Regional Water Authority, Lone Star Groundwater Conservation District or other reliable sources.

- 2. **STAGE 2 - MILD TO MODERATE:** The purpose of Stage 2 is to reduce outdoor use of water for lawns, gardens, car washing, et cetera. Its goal is to reduce water consumption by 10.0% of the daily maximum system water supply, unless otherwise specified by the District's board of directors or its designee. Its Triggering Conditions are set forth in Subsection D.2. above.

During Stage 2 rationing, and in all other stages of rationing, water uses that cause the following conditions are prohibited:

- a. Runoff of water from the commercial or residential property of any utility customer into a street, gutter, ditch or storm drain; and
- b. The failure of any utility customer to promptly repair any controllable water leak.

The additional rationing options for Stage 2 will include one or more of the following, as determined by the District:

- a. Alternate Day Outside Water Usage: Alternate day water usage based upon addresses, sides of streets, or other definitions;
- b. Restricted Hours of Use: Watering during specified time periods;
- c. Five Day Use: Watering on a five day schedule for outside use; and
- d. The imposition of a rationing plan developed by users of the affected system, through their authorized representatives, and approved by the District's Board of Directors.

More specific options for water use curtailment by the District under Stage 2 are set forth in Exhibit C to this Emergency Demand Management Plan.

During Stage 2 rationing and all higher stages of rationing, water use to wash sidewalks, streets, driveways and other paved areas is prohibited, except to alleviate an immediate fire hazard.

3. **STAGE 3 - MODERATE TO SEVERE:** The purpose of Stage 3 is to further reduce outdoor water use. Its goal is to reduce water consumption by 20.0% of the daily maximum system water supply, unless otherwise specified by the District's board of directors or its designee. Its Triggering Conditions are set forth in Subsection D.3. above. In addition to the District's water use curtailment options for Stage 2, the District will impose additional curtailments, up to and including the prohibition of all outdoor water usage except by hand held hoses with manual turn-on/off nozzles, with an exemption for usage to water livestock. More specific options for water use curtailments under Stage 3 are set forth in Exhibit C hereto.
4. **STAGE 4 - SEVERE TO EXTREME:** The purpose of Stage 4 is to eliminate all unnecessary outdoor water use and reduce demand for other water uses. Its goal is to reduce water consumption by 25.0% of the daily maximum system water supply, unless otherwise specified by the District's board of directors or its designee. Its Triggering Conditions are set forth in Subsection D.4. above. In addition to the options for Stages 2 and 3, the District will require one or more of the following:
 - a. Imposition of one or more of the specific options for water use curtailment set forth in Exhibit C hereto;
 - b. Restriction of water use to an average of the customer's December through February average, to be uniformly applied on a system-wide basis; or
 - c. Based upon the technical data on each system's facilities, restriction of water use to a maximum number of gallons per meter per month.

Curtailment options imposed under Paragraphs b. and c. above, if exercised, will be imposed by the District through water flow restrictions installed on its water system distribution lines, storage tanks or other production facilities.

Any required approvals from the state must be obtained prior to implementing Stage 4 rationing restrictions.

F. VARIANCES

The District may grant a temporary variance for water uses otherwise prohibited under the Emergency Demand Management Plan if:

1. Compliance with the water use curtailments in effect cannot be technically accomplished during the duration of the water supply shortage or other condition for which water use curtailments are in effect;
2. The Applicant initiates alternative water use curtailments that achieve the same level of water use curtailment;

3. The District determines that failure to grant a variance would cause an emergency condition that adversely affects the health or safety of the public or the person requesting such variance; or
4. The District determines that a temporary variance is warranted to prevent serious economic damage to a business that uses outdoor water in its primary business activity, such as turf growers, nurseries and commercial car washes, or to other utility customers on a showing of good cause.

Persons or entities that request a variance shall do so in writing within five (5) days after imposition of Stages 2, 3 or 4. All petitions for variances shall be reviewed by the Board of Directors, or its designee, and shall include the following:

- a. Name and address of the petitioner(s).
- b. The purpose of the Petitioner's water use.
- c. The specific provision(s) of the Plan from which the petitioner is requesting relief.
- d. A detailed statement of the adverse effect on the petitioner if a variance is not granted.
- e. A description of the relief requested.
- f. The period of time for which the variance is sought.
- g. Alternative water use restrictions or other measures implemented by the petitioner to meet and effect compliance with water use reduction goals.

Variances shall contain the following conditions, unless waived or modified by the Board of Directors or its designee:

- a. A timetable for compliance.
- b. Expiration of the variance when water rationing stages under the Plan are no longer in effect, or an alternative expiration date.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

G. VIOLATIONS AND ENFORCEMENT OF RATIONING

The following procedures apply to customer violations of the rationing rules set forth above and the District's enforcement responses. They are in addition to and are not a substitute for other enforcement authority established by the District's Rate Tariff and Order, ordinances and other District policies, notwithstanding that the District may invoke such authority during a

period of water rationing under the Emergency Water Demand Management Plan. In addition, the enforcement actions set forth below further subject the water user to (a) the District's published fees and costs that are associated with its enforcement actions, and (b) enforcement of the water conservation provisions of the District's ordinances.

The following enforcement actions shall apply to violations of the rationing rules for Stages 2, 3 and 4:

1. For the first violation, notification to the water user of the existence of the violation and the District's enforcement options for subsequent violations;
2. For the second violation, the District may, for good cause, treat the violation as a first violation, or alternatively, upon prior notification (a) terminate water service for up to twenty four (24) hours, or (b) install a flow restricter in the District's or the customer's water line to limit the water volume deliverable to the customer in any twenty four hour period, for the greater of (i) seven (7) days, or (ii) the duration of the mandatory rationing period; and
3. In addition, for a second or subsequent violation, the District may invoke the District's ordinances that pertain to water rationing violations, together with any applicable service termination provisions of the District's Rate Tariff and Order.

Regardless of the means used for delivery of notice of rationing violations, and unless otherwise provided:

1. A second violation occurs twenty four hours after any first violation; and
2. A third or subsequent violation occurs twenty four hours after any prior violation.

Notification to specific customers of rationing violations shall be as follows:

1. For a first violation under any Stage of Rationing in a continuous period of rationing under Stages 2, 3 or 4, notification shall be in writing and may be delivered by either hand or mail;
2. For a second violation, notification prior to enforcement may be in writing as set forth in Paragraph 1. above, or delivered verbally, provided, that the District's representative shall note in writing the date, time and substance of the verbal notification and deliver the record of the notification to the District's office; and
3. For a third or subsequent violation, notification may be given as provided for second violations, provided, that written notice that a termination of service has occurred shall be delivered to the water user at the address where service is delivered at the time of termination, together with the information deliverable to utility customers in the event of disconnection of service, as provided by the District's Rate Tariff and Order.

Restrictions of service and terminations of service under this Emergency Water Demand Management Plan are subject to the customer's right to appeal and illness hardship provisions set forth in the District's Rate Tariff and Order.

EXHIBIT ATWDB-1965
Rev. 9/23/11**TEXAS WATER DEVELOPMENT BOARD
UTILITY PROFILE (TWDB - 1965)**

(Formerly WRD 264)

The purpose of the Utility Profile is to assist with water conservation plan development and to ensure that important information and data be considered when preparing your water conservation plan and its target and goals. Please complete all questions as completely and objectively as possible. See *Water Conservation Plan Guidance Checklist* (TWDB-1968) for information on other water conservation plan provisions. You may contact the Municipal Water Conservation Unit of the TWDB at 512.463.7955 or wcpteam@twdb.state.tx.us for assistance.

APPLICANT DATAName of Utility: HMW Special Utility DistrictPublic Water Supply Identification Number (PWS ID): AttachAddress: PO Box 837 City: PinehurstState: TX Zip Code: 77362 Email: tkromar@hmw-sud.comTelephone Number: (281) 356-5060 Fax: (281) 356-7667

Regional Water Planning Group: _____

Groundwater Conservation District: LSGCD and HGSDForm Completed By: Tammie Kromar Title: Controller

Signature: _____ Date: _____

Contact information for the person or department responsible for implementing the water conservation program:

Name: W. K. Coe Phone: (281) 356-5060Email: tkromar@hmw-sud.com**UTILITY DATA****A. Population and Service Area Data**

1. Current population of service area: 12,393
2. Current population served by utility: Water: 12,393
Wastewater: 0

3. Population served by water utility for the previous five years starting with the most recent year:

Year	Population
2014	12,393
2013	12,252
2012	12,054
2011	12,183
2010	12,144

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

Year	Population
2010	12,244
2020	13,358
2030	14,574
2040	15,900
2050	17,347

5. List source(s)/method(s) for the calculation of current and projected population:

Previous five years growth remained consistent. Used connection count x 3 for current population and 9.1% for calculation for each decade as previously submitted.

B. Active Connections

1. Current number of active connections by user type. If not a separate classification, check whether multi-family service is counted as **Residential** ☐ or **Commercial** ☐

Water User Type*	Metered	Un-metered	Total
Residential Single Family	3,863	0	3,863
Residential Multi-family	0	0	0
Commercial/Institutional	268	0	268
Industrial	0	0	0
Other (please describe):	0	0	0

* See Appendix A #1.

2. List the net number of new connections per year for most recent three years:

Water User Type*	2014	2013	2012
Residential Single Family	53	31	32
Residential Multi-family	0	0	0
Commercial/Institutional	4	3	0
Industrial	0	0	0
Other (please describe):	0	0	0

* See Appendix A #1.

C. High Volume Customers

List annual water use for the five highest volume retail and wholesale customers.
Please indicate if treated or raw water delivery.

Customer	Water User Type*	Annual Water Use (in gallons)	Treated	Raw
Aqua Texas America	Commercial	3,184,000	<input checked="" type="radio"/>	<input type="radio"/>
Aqua Texas Inc	Commercial	2,079,000	<input checked="" type="radio"/>	<input type="radio"/>
Sonic Drive-In	Commercial	866,000	<input checked="" type="radio"/>	<input type="radio"/>
Rosehill Christian School	Commercial	817,000	<input checked="" type="radio"/>	<input type="radio"/>
Decker Pines Shopping Ctr	Commercial	743,000	<input checked="" type="radio"/>	<input type="radio"/>

* See Appendix A #1

D. Water Supply System

- Design daily capacity of system: attached gallons per day
- Storage Capacity: Elevated 0 attached gallons per day
Ground 0 gallons per day
- If surface water, do you recycle filter backwash to the head of the plant?
Yes ☐ No ☐. If yes, approximately _____ gallons per day.

E. Water Accounting Data

- Amount of water use in gallons for previous five years.
Please indicate whether: Treated Water ☒ or Raw Water ☐

YEAR	2014	2013	2012	2011	2010
January	25,905,100	26,238,100	26,154,900	26,755,500	22,545,900
February	22,696,300	23,366,400	22,596,900	27,004,900	20,089,900
March	25,779,100	34,171,400	26,217,000	35,642,200	27,468,200
April	36,292,200	31,784,400	38,086,500	55,688,700	35,147,400
May	40,669,500	36,551,800	48,476,500	62,567,100	45,916,900
June	33,792,700	50,825,600	47,700,500	68,119,800	48,251,300
July	39,639,800	53,610,200	38,422,400	63,322,000	35,656,500
August	52,982,500	51,321,400	51,226,800	77,253,300	55,621,000
September	35,705,800	45,097,000	43,582,600	65,281,900	37,487,400
October	33,319,100	29,897,200	33,984,400	45,178,000	50,057,500
November	26,990,700	26,184,400	32,393,900	33,575,700	31,349,100
December	25,955,000	25,283,600	28,486,100	26,251,900	30,126,400
TOTAL	399,727,800	434,331,500	437,328,500	586,641,000	439,717,500

Please indicate how the above figures were determined (e.g., from a master meter located at the point of a diversion from a stream or located at a point where raw water enters the treatment plant).

Multiple master meters

2. Amount of water sold in **gallons** as recorded by Water User Type for the previous five years
(See Appendix A #1)

Year	Residential Single Family	Residential Multi Family	Commercial/ Institutional	Industrial	Other	Wholesale	Total Sold
2014	329,514,000	0	23,929,000	0	0	0	353,443,000
2013	369,982,000	0	19,801,000	0	0	0	389,783,000
2012	379,705,000	0	17,264,000	0	0	0	396,969,000
2011	516,424,000	0	18,629,000	0	0	0	535,053,000
2010	381,109,000	0	15,414,000	0	0	0	396,523,000

3. GPCD and Seasonal Water Use for the previous five years

Year	Population	Total Water Use	Total gallons per capita per day (GPCD)*	Residential GPCD**	SEASONAL WATER USE***	
					Winter per capita per day	Summer per capita per day
2014	12,393	399,727,800	88	73	67	113
2013	12,252	434,331,500	97	83	68	141
2012	12,054	437,328,500	99	86	71	127
2011	12,183	586,641,000	132	116	73	190
2010	12,144	439,717,500	99	86	67	128
Five Year Average	12,205	459,549,260	103	89	69	140

* Total GPCD (See Appendix A #2):

** Residential GPCD (See Appendix A #3):

*** Seasonal Water Use (See Appendix A #4)

4. Water Loss Data for the previous five years
(See Appendix A #5)

Year	Water Loss expressed in gallons	Water Loss expressed in GPCD	Water Loss expressed as a percentage
2014	46,284,800	10	11.58%
2013	44,548,500	10	10.26%
2012	40,359,500	9	9.23%
2011	51,588,000	12	8.79%
2010	43,194,500	10	9.82%
Five Year Average	45,195,060	10	9.94%

5. Peak Day Use (in **gallons**) to Average Daily Use (in **gallons**) Ratio for the previous five years
(See Appendix A #6)

Year	Average Daily Use	Peak Day Use	Ratio
2014	1,095,145		0.00
2013	1,189,949		0.00
2012	1,198,160		0.00
2011	1,607,236		0.00
2010	1,204,705		0.00

F. Projected Demands

Estimate water supply requirements for at least the next ten years using population trends, historical water use, and economic growth, etc.

Year	Population	Water Demand (in gallons)
2016	12,640	407,722,000
2017	12,892	415,877,000
2018	13,149	424,194,000
2019	13,411	432,678,000
2020	13,680	441,331,000
2021	13,953	450,158,000
2022	14,232	459,161,000
2023	14,517	468,344,000
2024	14,807	477,711,000
2025	15,103	487,266,000

Indicate sources of data and how projected water demands were determined. Attach additional sheets if necessary.

Used 2%

G. Wastewater System Data

1. Design capacity of wastewater treatment plant(s): _____ gallons per day
2. Is treated effluent used for:

Use	Total Annual Volume (in gallons)
On-site irrigation	
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Other (please describe):	

Could treated effluent be substituted for certain potable water now being used? Yes ☐ No ☐

H. Wastewater Data for Service Area

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

YEAR	2014	2013	2012	2011	2010
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL	0	0	0	0	0

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Appendix A

Definitions of Utility Profile Terms

1. **Residential – Single Family** should include water sold to single family and duplexes.
Residential – Multi-Family should include water sold to this class of customers only.
Commercial/Institutional sales should include water sold to retail businesses, offices, hospitals, etc.
Industrial sales should include water sold to manufacturing and other heavy industry.
Wholesale sales should include water sold to another utility for resale to the public.
Other water sales should be noted as necessary.
2. **Total use in gallons per capita per day** is defined as total average daily amount of water treated or raw water provided for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment by population served. Indirect reuse volumes shall be credited against total diversion volumes for the purpose of calculation gallons per capita per day for targets and goals developed for the water conservation plan. Total water use is calculated by subtracting the wholesale sales from the total treated or raw water.
3. **Residential use in gallons per capita per day** is calculated by dividing the total single family plus multi-family residential water sales by the population served and then dividing by 365.
4. **Seasonal water use** is the difference between winter daily per capita use and summer daily per capita use. To calculate **the winter daily per capita use**, add the monthly diversions for December, January, and February, and divide by 90. Then divide this figure by the population. To calculate the **summer daily per capita use**, use the months of June, July, and August.
5. **Water Loss** is the difference between water a utility purchases or produces and the amount of water that it can account for in sales and other use, metered and unmetered, such as firefighting, line flushing, and water for public buildings and water treatment plants. Water loss can result from:
 1. Inaccurate or incomplete record keeping;
 2. Meter error;
 3. Leaks; and
 4. Water theft and unauthorized use.
6. The **peak-day to average-day ratio** is calculated by dividing the maximum daily pumpage by the average daily pumpage. Average daily pumpage is the total pumpage for the year divided by 365.

HMW SPECIAL UTILITY DISTRICT
PLANTS PWS ID'S
EXHIBIT

PWS ID	PLANT
1012276	2920 West
1011236	Alice Acres
1700131	Allenwood
1700447	Armadillo Woods/ Magnolia Oaks
1010887	Brandywine Oaks
1011219	Brandywine Pines
1700318	Coe Country/ Meadowood/ Foxwood
1011845	Coe Industrial Park
1010629	Cypress Crossing
1011552	Cypress Pass
1700307	Deer Ridge
1011996	Grant Road Estates
1012794	Holly Lakes Estates
1012904	House Corral
1700149	Hunters Retreat/ Greenwood Country/ Galleria Oaks
1011766	Kickapoo Farms
1700228	Kipling Oaks I/ Pinehurst Village
1700153	Kipling Oaks II/ Timbergreen
1700150	Mink Branch
1700245	Pleasant Forest
1010916	Red Oak Terrace
1700156	Rimwick Forest
1700410	Rustic Oaks
1700565	Senderal Lake Estates
1700083	Shady Acres
1012367	Timberwilde
1011919	Tomball Industrial Park
1700317	Towering Oaks/Rosewood Hills I & II/ Woodloch
1011521	Trailwood
1012397	Treichel Woods
1012795	Village of New Kentucky
1011812	Willow Oaks

HMW SPECIAL UTILITY DISTRICT
CAPACITY TABLES EXHIBIT

Water System	Design Capacity (gpd)	Ground Storage Capacity (gal)
2920 West	180,000	33,600
Alice Acres	136,800	38,000
Allenwood	187,000	38,000
Armadillo Woods	259,000	46,400
Brandywine Oaks	158,000	-
Brandywine Pines	184,320	31,500
Coe Country	720,000	155,500
Coe Industrial Park	72,000	-
Cypress Crossing	130,000	-
Cypress Pass	77,000	20,000
Deer Ridge	280,000	42,000
Grant Road Estates	184,000	-
Holly Lakes Estates	122,000	-
House Corral	63,000	-
Hunters Retreat	518,000	106,500
Kickapoo Farms	175,000	20,000
Kipling Oaks 1	350,000	84,000
Kipling Oaks 2, 3, and 4	57,000	103,000
Mink Branch	144,000	-
New Kentucky	259,000	50,400
Pleasant Forest	230,400	22,400
Red Oak Terrace	115,200	16,500
Rimwick Forest	160,000	16,900
Rosewood Hills	172,800	92,000
Rustic Oaks	86,000	-
Sendera Lakes	561,000	43,900
Shady Acres - Interconnect		-
Timberwilde	233,000	42,000
Tomball Industrial Park	56,000	-
Towering Oaks	300,000	101,800
Trail Wood	79,000	-
Trechel Woods	13,000	22,000
Willow Oaks	187,000	40,000
Totals	6,449,520	1,166,400

EXHIBIT B

WATER CONSERVATION PLAN 5- AND 10-YR GOALS FOR WATER SAVINGS

Facility Name: **HMW Special Utility District**
Water Conservation Plan Year: 2015

	Historic 5yr Average	Baseline	5-yr Goal for year <u>2019</u>	10-yr Goal for year <u>2024</u>
Total GPCD ¹	459,549,260	398,478,800	454,953,767	450,358,275
Residential GPCD ²	92	89	91	90
Water Loss (GPCD) ³	11	10	11	11
Water Loss (Percentage) ⁴	9.94%	10.64%	9.84%	9.74%

1. Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365
2. Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365
3. Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365
4. Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

EXHIBIT C

ADDITIONAL SPECIFIC OPTIONS FOR MANDATORY WATER USE CURTAILMENT

I. STAGE 2 - MANDATORY/MILD TO MODERATE

- A. Irrigation utilizing hose-end sprinklers or automatic sprinkler systems for lawns, gardens, landscaped areas, trees, shrubs and other plants shall be prohibited except during designated hours, which shall be between the hours of 8:00 p.m. to 8:00 a.m. Utility Customers with an address ending in an even number may only water between designated hours on Mondays, Wednesdays and Fridays. Utility Customers with an address ending in an odd number may only water between designated hours on Tuesdays, Thursdays and Saturdays. Throughout this exhibit, designated hours shall mean commencing at 8:00 p.m. on the designated week day, and ending at 8:00 a.m. on the immediately following day of the week. For example, designated hours on Monday are 8:00 p.m. Monday to 8:00 a.m. on the following Tuesday.

The District may permit watering of lawns, gardens, landscaped areas, trees, shrubs or other plants at other times, but only if the utility customer uses or causes to be used:

1. A continuously hand-held hose, or
2. A drip irrigation system.

- B. Except as otherwise provided by law, the washing of automobiles, trucks, trailers, boats, airplanes and other types of mobile equipment shall be prohibited except during designated hours between the hours of 8:00 p.m. to 8:00 a.m. Utility Customers with an address ending in an even number will be limited to washing during designated hours on Mondays, Wednesdays and Fridays. Utility Customers with an address ending in an odd number will be limited to washing during designated hours on Tuesdays, Thursdays and Saturdays. Such washing, when allowed, may be restricted to the use of a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses.
- C. The refilling or adding of water to residential swimming and/or wading pools shall be prohibited except during designated hours between 8:00 p.m. to 8:00 a.m. Utility Customers with an address ending in an even number may only water between designated hours on Mondays, Wednesdays and Fridays. Utility Customers with an address ending in an odd number may only water between designated hours on Tuesdays, Thursdays and Saturdays.

- D. The District may prohibit the operation of any ornamental fountain or other structure making similar use of water, except for fountains or structures with a water recycling system.
- E. The use of water for irrigation of subdivision common areas, parks, plazas, and other public areas will be prohibited except during designated hours between 8:00 p.m. to 8:00 a.m., provided only that if any of the foregoing utilize wastewater effluent for such irrigation, the District may exempt them from this provision.

II. STAGE 3 - MANDATORY/MODERATE TO SEVERE

In Stage 3, the water use curtailment options adopted for Stage 2 shall remain in effect. In addition thereto:

- A. Irrigation utilizing hose-end sprinklers or automatic sprinkler systems for lawns, gardens, landscaped areas, trees, shrubs and other plants shall be prohibited except during designated hours, which shall be between the hours of 8:00 p.m. to 8:00 a.m. Utility Customers with an address ending in an even number may only water between designated hours on Mondays and Fridays. Utility Customers with an address ending in an odd number may only water between designated hours on Tuesdays and Saturdays.
- B. Irrigation of subdivision common areas, parks, plazas, squares and other public areas will be prohibited except during designated hours, which shall be between the hours of 8:00 p.m. to 8:00 a.m. Utility Customers with an address ending in an even number may only water between designated hours on Mondays and Fridays. Utility Customers with an address ending in an odd number may only water between designated hours on Tuesdays and Saturdays.

III. STAGE 4 - MANDATORY/SEVERE TO EXTREME

In Stage 4, the water use curtailment options adopted for Stages 2 and 3 shall remain in effect. In addition thereto:

- A. Irrigation utilizing hose-end sprinklers or automatic sprinkler systems for lawns, gardens, landscaped areas, trees, shrubs and other plants shall be prohibited except during designated hours, which shall be between the hours of 8:00 p.m. to 8:00 a.m. Utility Customers with an address ending in an even number may use water only on Wednesdays. Utility Customers with an address ending in an odd number may use water only between designated hours on Saturdays.

- B. The washing of automobiles, trucks, trailers, boats, airplanes and other types of mobile equipment, not occurring on the immediate premises of commercial car washes and commercial service stations, and not in the immediate interest of the public health, safety and welfare, may be prohibited except on designated hours between the hours of 8:00 p.m. to 8:00 a.m. In that event, Utility Customers with an address ending with an even number may wash such equipment only on Wednesdays of each week during designated hours. Utility Customers with an address ending in an odd number may wash mobile equipment only on Saturdays of each week during designated hours.
- C. Commercial car washes, restaurants, service stations and other commercial utility customers shall be limited to a maximum of fifty percent (50.0%) of their monthly average usage, based on the last twelve (12) billing periods for each of such customer.
- D. The filling, refilling or adding of water to swimming and/or wading pools shall be prohibited, except to maintain structural integrity, conditioned on the granting of a specific exemption from the District therefor.
- E. The operation of any ornamental fountain or similar structure, with or without recirculating features, shall be prohibited.
- F. Irrigation of parks, plazas, squares and other public areas will be prohibited except during designated hours, which shall be between the hours of 8:00 p.m. to 8:00 a.m. Utility Customers with an address ending in an even number may only water between designated hours on Wednesdays of each week. Utility Customers with an address ending in an odd number may only water between designated hours on Saturdays of each week.

In addition to the foregoing water use curtailment options provided for Stage 4, the following additional curtailment options may be employed by the District in the event of curtailments under Stage 4, Paragraphs B. and C.:

- A. Irrigation by hose-end sprinklers, automatic sprinkler systems or other means, shall be prohibited.
- B. The washing of automobiles, trucks, trailers, boats, airplanes and other types of mobile equipment, including on the premises of commercial car washes and commercial service stations, and not in the immediate interest of the public health, safety and welfare, may be prohibited or further reduced below the limits prescribed under Stages 2 and 3.