

***Water Conservation  
and  
Drought Contingency Plan***

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Springs Hill Water Supply Corporation  
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**WATER CONSERVATION  
AND  
DROUGHT CONTINGENCY PLAN 2014**

**I. INTRODUCTION AND BACKGROUND**

**A. PURPOSE AND POLICY**

Springs Hill Water Supply Corporation (SHWSC) is a Member-Owned, non-profit corporation incorporated under Article 1434 (a) of the Revised Civil Statutes of Texas of 1925, as amended, supplemented by the Texas Non-Profit Corporation Act, Article 1.01 et seq., as amended for the purpose of furnishing a water supply for general farm use and domestic purposes to individuals in rural areas. Corporation operating policies, rates, tariffs, and regulations are formulated and affected by a Board of Directors elected by the Owner Members of the Corporation. These are on file at the Corporation's offices located at 5510 S. 123 Bypass, Seguin, Texas and are available for inspection as public documents.

The Corporation is empowered, among other things, to purchase, construct, operate, and maintain all works, improvements, facilities, and plants necessary for the supply and distribution of water.

The TCEQ adopted revisions to Title 30, Texas Administrative Code (TAC), Chapter 288-Water Conservation Plans, Drought Contingency Plans, Guidelines and Requirements as published in 2013. The TCEQ regulations require retail public water suppliers with 3,300 or more connections to submit a revised plan no later than May 1, 2014 and every five years thereafter. The plan should include specific, quantified targets for water use reductions, drought response stages, triggers, supply management measures, demand management measures, description of drought indicators, notification procedures, enforcement procedures, procedures for granting exceptions, public input to the plan, ongoing public education, adoption of plan and coordination with Region L planning group.

In order to conserve and protect the integrity of the available water supply, with particular regard for domestic water use, sanitation, and fire protection, and to protect public health, welfare, and safety and minimize the adverse impacts of water shortage or other water supply emergency conditions, SHWSC has formulated these policies, regulations and restrictions on the delivery and consumption of water.

The policies presented in this plan are needed to efficiently manage the water available to the Corporation for the benefit of all customers. Water uses regulated or prohibited under this Plan are considered to be non-essential and continuation

of such uses during times of water shortage or other emergency water supply conditions are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in the Drought Contingency Plan.

We are looking to the members of SHWSC to evaluate the Conservation Plan and hopefully make recommendations on how to add to it. We will do this by publishing the plan on the SHWSC web site, [www.springshill.org](http://www.springshill.org), making it available at our annual member's meeting and by having copies available in our front office. It is our intention to update the plan as needed to take advantage of new ideas and resources. Springs Hill recognizes the need to follow the lead of Guadalupe Blanco River Authority (GBRA) and our other water suppliers in order to be in compliance with their triggers and plan.

## B. DESCRIPTION OF THE PLANNING AREA AND UTILITY SYSTEM

SHWSC service is comprised of approximately 182,000 acres / 284 square miles and encompasses the City of Seguin; with boundaries on the north, in to the New Braunfels city limits, on the south and east, the Gonzales County Line, and to the west the City of McQueeney city limits, abutting the Green Valley Special Utility District's service area. SHWSC is located within the extra territorial jurisdiction (ETJ) of the City of Seguin and City of New Braunfels. (See Appendix A – SHWSC Map)

SHWSC currently serves a population of approximately 23,156 people and has over 6,844 connections. The Texas Water Development Board (TWDB) has projected the population to reach 45,804 by the year 2060. Connections are likewise projected to reach 13,500. The prominent area of growth is in the northern service area along state highway (SH) 46 and northwest service area along Farm-to-Market (FM) 78 and the I10 corridor going east and west to SH130.

SHWSC obtains water from several sources. The corporation operates a 2 MGD conventional surface water treatment plant on Lake Placid. The Lake Placid plant has access to 2850 AF of surface water. Canyon Regional Water Association (CRWA) provides additional 1,925 acre feet of Lake Dunlap surface water per year. Groundwater is obtained from three wells operated and owned by SHWSC and located in the Carrizo Aquifer producing approximately 350 acre feet per year per well. In addition SHWSC has a contract to purchase 700 acre feet of groundwater from Seguin-Schertz. CRWA has contracted with SHWSC to provide an additional 100 acre foot from the CRWA wells located in the Carrizo aquifer.

## C. OVERALL PLAN GOALS

The plan has two components; the Water Conservation Plan and the Drought Contingency Plan. The Water Conservation Plan is to establish policy and define five-year and ten-year goals, which will:

1. Insure that demand for water does not exceed the amount of treated water available.
2. Provide the public with educational information to encourage water conservation and decrease waste.
3. Limit peak water usage during the summer months so that mandatory water use restrictions are limited to times of drought.
4. Decrease the average water usage per connection.
5. Limit unaccounted for water by tracking loss on a monthly basis, a meter replacement program, collecting information from local fire departments and calculate water loss at all leak repair locations.
6. Replace old infrastructure in areas that show continual leak repair by tracking those leaks with our H2O Analytics software.
7. Use Continental Utility Software in combination with H2O Analytics software to monitor usage.

The overall goal of the Drought Contingency Plan is to follow the lead and plan that Guadalupe Blanco River Authority applies to the Hydroelectric Lakes including Lake Dunlap and Lake Placid. The procedures initiated by certain triggers set by GBRA to prevent loss of water supply to any customer during periods of high usage and to protect the environment. The GBRA plan impacts our members who live along the Guadalupe River and Springs Hill does not see a benefit in having a different set of guidelines. This would make enforcement extremely difficult:

1. Establish trigger conditions that conform to GBRA's bench marks for the Hydroelectric Lakes
2. Outline a management plan that follows GBRA's Drought Plan.
3. Specify public information and education policies.
4. State initial start and termination notice procedures.
5. State implementation and enforcement procedures.

#### D. COORDINATION WITH REGIONAL WATER PLANNING GROUP

The service area of SHWSC is located within the South Central Texas Region L water planning area. The Corporation has provided a copy of the Water Conservation Plan and the Drought Contingency Plan to the South Central Texas Region L water planning group. The General Manager attends the Region L planning meetings and contributes all information requested of them to help develop future state plans.

## II. WATER CONSERVATION PLAN

### A. PLAN ELEMENTS

The plan has seven elements, all of which are equal in importance and the implementation of which will be periodically reviewed to ensure progress is being made in each area and that goals are being met:

#### 1. Education and Information

**Description:**

The single most effective means of educating the water consumer on the consequences of wasting water is providing relevant, timely information on the benefits of conservation and the means by which it can be accomplished.

**Implementation:**

The Corporation obtains excellent educational literature from the TWDB, TCEQ, Texas Municipal Utility Association, and the American Water Works Association. This literature is also available at all times at the Corporation's office.

On the SHWSC website ([www.springshill.org](http://www.springshill.org)), we maintain links to sites that are educational in nature. In addition, a direct mailing of conservation reminders is conducted annually. We send reminders as a part of the billing system. SHWSC has added a demonstration xeriscape garden and encourage our customers to do the same. Our new customer packages will also include educational handouts for children and on the benefits of the above. SHWSC will encourage rain water harvesting and makes 50 gallon barrels available to members to use as Rain barrels.

**Determination of Water Savings:**

Water savings from educational programs are difficult to quantify and therefore estimated savings will not be included.

**Schedule:**

Always have materials available in lobby.

Web Site is available at all times.

Participate in water programs hosted by GBRA.

Always have materials available in New Customer packets.

**Documentation:**

Review as needed when updating Conservation or Drought plan.

## **2. Conservation Oriented Rate Structure**

### **Description**

The Corporation has always used an increasing block rate structure for all customers. The Corporation revised rates to encourage water conservation in the Fall of 2013. The rate structure does not include water in the base rate, so that customers with minimal usage still pay for water they use. The SHWSC rate structure is included in **Appendix F**.

## **3. Meter Replacement**

### **Description**

Inaccurate metering is one probable cause of unaccounted water, and since meter readings form the basis for data gathering on production, usage and sales, maintaining accurate meters is a high priority. SHWSC currently has a loan from the Texas Water Development Board and is in the process of replacing over 5000 meters with Radio Read meters.

### **Implementation**

Approximately 2000 of our meters had been changed to Radio Read and the remainder were replaced in 2013. All meters will be read on the same day and compared to Master meters in the system to obtain a more accurate accounting of where our water losses are.

The meter readers have been trained to watch for meters that are leaking on either side and create work orders and / or notify the member of the problem. If a large leak is found the meter will be turned off and the customer notified.

Dual connections and anything out of the ordinary are to be reported by the meter readers. These reports are followed up by field services.

### **Determination of Water Savings**

The use of Master meters will allow us to capture data to be used in monthly reporting. We are using a feature in H2O Analytics software that automatically creates water loss reports each month. Once the loss area has been identified we will deploy detection equipment to locate the leak or leaks and repair them.

### **Schedule**

Installation completed last week of 2013.

### **Documentation**

See Section 4 on Water Audit and Water loss

## **4. Water Audit and Water Loss**

### **Description**

The foundation for control is performing a reliable water audit. The Corporation routinely monitors production rates and consumption. This monitoring is not only used for billing purposes but also to satisfy TCEQ and TWDB regulatory requirements to account for production quantities and individual customer usage on a monthly basis. The results of water



meter readings are prepared and analyzed to determine trends of usage, water accountability, and production requirements both near term and future. From this information an evaluation of system operation is made and appropriate action is taken to correct system deficiencies when practical. A form of unaccounted water that rural areas face is the multiple Volunteer Fire Departments using fire hydrants for filling trucks and sometimes for uses that should not be part of the regular fire fighting usage. For instance filling swimming pools, washing their vehicles and other fund raising activities.

#### **Implementation**

The first day of each month the Water Production Manager turns in meter readings of Raw Water reading and the Processed water reading. We use these readings to determine how much water is being lost from the Wells during production and how much is being lost from the Treatment Plant in the process of producing potable water from Surface water. Each month we see if the loss has increased and if so we investigate the processing to determine if leaks have developed, or over flows have occurred, etc. Any identified problems are dealt with immediately.

All the customer meters are tied to a Billing Cycle that is related back to Well Water, Treatment Plant water or CRWA water. We then match the meter readings from the source water to the total billed usage. In this way we can get the % of loss in various areas of the system. Any numbers that are above 3% will be investigated to determine why. This is when we start deploying leak detection equipment.

Volunteer fire departments in our area have been asked to sign contracts agreeing to provide us with weekly water usage estimates. Forms have been developed to track the information and are to be faxed or emailed back to SHWSC. Should they not send the results at the end of the month our office manager is responsible for calling them and getting the information required.

We can also analyze data from the SCADA system to help identify problems that might be developing.

A new approach will be to take pressure readings at key points in the system to determine drops in pressure that indicate water loss in a major line. These indicators will have the ability to notify the Field Services and General Manager by a text message.

#### **Schedule**

Daily monitoring and monthly update of water loss and usage

#### **Documentation**

A water loss report is automatically produced by H2O Analytics and shared with the Board of Directors.

Monthly usage reports filed by Fire Departments.

## **5. Leak Detection, Prevention, and Repair**

### **Description**

An important element in the operation of an efficient water system is the reduction of water loss. It is the goal of this program to keep the lost water figure under twelve percent. Unaccounted for water had been averaging approximately twenty one percent, this is due to neglecting the analysis in the past and the rural nature of the system—small diameter pipes covering long distances. Leaks are detected by visual inspection or through the use of standard leak detection equipment. We encourage our members to report leaks and we respond as soon as the leak is reported. We have a team on call 24 hours a day 7 days a week. This past year we lowered that loss to 11%.

#### **Implementation**

Currently we are documenting leaks on our maps to identify problem water lines and prioritize these for repair. We then calculate the cost effectiveness of replacing a line due to large amounts of leaks occurring. The location, date reported, locates called in, date permits ordered and date leak has been fixed are recorded in Elements.

With the proceeds from the Texas Water Development Agency and as part of the meter replacement process we check each meter box for the following: customer cut off valve, cross connections, multiple hookups, pressure reduction valves and back flow prevention. The new meters track tampering and in some cases pressure as well as unusual usage. Any noted deficiencies will be fixed as a separate project after the meters have been installed.

We have installed H2O Analytics which lets us notify all customers who are going to be impacted by a leak. We try to call before we turn off the water whenever possible. At the same time the customers are called all the service reps receive a message notifying them of where the leak is and a list of everyone who has been called.

#### **Schedule**

All the new meters are to be in place by December 31, 2013. All follow up activities should be complete by March 2014.

We are hoping to reduce water loss to 7.5% by the end of 2013 and to maintain this rate or lower.

#### **Documentation**

Monthly water loss report presented to Board each month.

Maps available on line for the County, City, Developers, Fire Departments etc.

Monthly leak reports available for board including: flushing, fire use, estimated leak loss and unaccounted for loss.

## **6. Pressure Control**

### **Description**

High pressure may cause small openings in a main to leak significantly in a short amount of time. SHWSC maintains pressures of less than 80 psi whenever possible. Field services will check pressures and update the pressure information to the data for mapping. When the map is complete we can use the information along with the Water model that has been

developed by M&S Engineering. With the meter replacement program we are also installing pressure readers that will notify the Field Service Managers when pressures drop significantly and we will be able to go out and locate the leak.

**Implementation:** As described above.

**Schedule**

On going.

**Documentation**

Maps

## **7. Standard Conservation Practices**

SHWSC also endorses the following conservation practices:

- a. Encourage retrofit of existing fixtures to water saving types.
  1. Shower Heads
  2. Faucet Aerators
  3. Low flush toilets
  4. Toilet flap replacement
  5. Front load washers
- b. Adoption and enforcement of the 2000 Uniform Plumbing Code which includes pertinent sections of state law restricting the use of non-water saving fixtures in new construction. The Corporation uses the plumbing code to regulate and conduct plumbing inspections on all residential and commercial installations.
- c. Recommend water wise and alternative landscaping which uses less water.
  1. Drip Irrigation
  2. Rain Harvesting
  3. Rain Barrels
  4. Xeriscape
  5. Condensate usage
  6. Gray water usage
- d. Encourage irrigation in off peak hours during the night and early morning when demand and evaporation rates are lower.

## **B. WATER SAVINGS GOALS**

The Corporation has reviewed and developed quantifiable five-year and ten-year targets for water savings as required by the TCEQ in Title 30, Chapter 288 of the TAC. Additionally a progress report on plan implementation is to be submitted to the TCEQ and TWDB annually. The Corporation will use 2013 as the baseline

year with five-year goals to be achieved by 2018. The ten-year goals are to be achieved by 2023.

The key elements of these targets are reduction in water loss and conservation as measured by water usage per person per day.

## **GOAL #1**

Constant monitoring of water loss and determining how to lower the losses.

Original Goals:

### Original Five –Year Target (2009)

To have unaccounted for water at twelve percent or less. Have reached 15% in 2013.

### Five –Year Target (2019)

To reduce unaccounted for water to ten percent or less.

### Ten –Year Target (2024)

To reduce unaccounted for water to five percent or less.

## **GOAL #2**

Promote individual and residential water conservation to decrease per capita usage of water. This goal has been reached in 2013. We will attempt to better monitor the usage. We have implemented a customer profile in order to determine how many people are living in a house hold so that we can see specific usage per house hold. This is a long term project and will require continual request for information from our customer base. Each year we will calculate the usage and work on educating those who are using the most water.

Original Goals:

### Five –Year Target (2019)

Reduce per capita usage to 95-gallons/day or less. In 2013 has been reduced to 100 gpd.

### Ten –Year Target (2024)

Reduce per capita usage to 90-gallons/day or less.

## **C. CONSERVATION PLAN IMPLEMENTATION**

The Board of Directors of SHWSC will adopt this Plan through formal resolution (**Appendix G**) and implement it through direction to the general manager, staff and consultants.

**D. ANNUAL REPORTING AND REVIEW**

Sample reports are included in **Appendix C** and Weekly, Monthly and annual check list are included in **Appendix D**.

### **III. DROUGHT CONTINGENCY PLAN**

#### **A. DECLARATION OF POLICY, PURPOSE, AND INTENT**

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation and fire protection, and to protect and preserve public health, welfare and safety, and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the SHWSC hereby adopts the following regulations and restrictions on the delivery and consumption of water.

Water uses regulated or prohibited under this Drought Contingency Plan (the Plan) are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section H of this Plan.

#### **B. PUBLIC EDUCATION**

SHWSC will periodically provide the public with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of utility bill inserts, press releases, public notices, newsletters, and the website at [www.springshill.org](http://www.springshill.org).

#### **C. COORDINATION WITH REGIONAL WATER PLANNING GROUPS**

The service area of SHWSC is located within the South Central Texas Region L water planning area and SHWSC has provided a copy of this Plan to the South Central Texas Region L water planning group. SHWSC will also coordinate with all our water wholesalers using the Triggers found in the GBRA Plan.

#### **D. AUTHORIZATION**

The Field Service Manager of SHWSC or staff designee is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The general manager shall have the authority to initiate or terminate drought stages or other water supply emergency response measures as described in this Plan.

#### **E. APPLICATION**

The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by SHWSC. The terms "person" and "customer" as used

in this Plan include individuals, corporations, partnerships, associations, and all other legal entities.

## F. DEFINITIONS

For the purposes of this Plan, the following definitions shall apply:

Aesthetic water use: Water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

Commercial and institutional water use: Water use, which is integral to the operations of commercial and non-profit establishments, governmental entities, retail establishments, hotels and motels, restaurants and office buildings.

Conservation: Those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water.

Customer: Any person, company, or organization using water supplied by SHWSC.

Domestic water use: Water use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution.

Drought of Record: The worst recorded drought since compilation of meteorological and hydrological data began. In terms of severity and duration, the drought of the 1950's is considered the drought of record in the Guadalupe River Basin.

Guadalupe-Blanco River Authority (GBRA): agency that manages the availability of surface water resources from which SHWSC obtains the majority of its water supply. (Lake Placid Water Treatment Plant and CRWA Lake Dunlap Plant)

Industrial water use: The use of water in processes designed to convert materials of lower value into forms having greater usability and value.

Landscape irrigation: Water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, rights-of-way and medians.

Non-essential water use: Water uses that are not essential or required for the protection of public, health, safety, and welfare, including:

- a. Irrigation of landscape areas, including parks, athletic fields, and golf courses, except as otherwise provided under this Plan;
- b. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
- c. Use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
- d. Use of water to wash down buildings or structures for purposes other than immediate fire protection;
- e. Flushing gutters or permitting water to run or accumulate in any gutter or street;
- f. Use of water to fill, refill, or add to any indoor or outdoor swimming pools or Jacuzzi-type pools;

- g. Use of water in a fountain or pond for aesthetic purposes except where necessary to support aquatic life;
- h. Failure to repair a controllable leak(s) within a reasonable period after having been given notice;
- i. Use of water from hydrants for construction purposes or any other purposes other than fire fighting or flushing.

**G. Triggering criteria for initiation and termination of drought response stages**

Because of Springs Hill dependence on raw water from the Guadalupe Blanco River Authority(GBRA) we will use their Triggers and follow their guidelines on going into Drought response stages. Canyon Reservoir impounds 378,852 acre feet and is 8,200 surface acres. The Conservation Pool is between 800' mean sea level (msl) and elevation of 909, msl. Springs Hill has contract rights through Canyon Regional of 1925 acre feet and 2850 acre feet directly from GBRA at Springs Hill Lake Placid Treatment Plant.

**Stage 1 Trigger – Springs Hill stays in at all times in order to practice Conservation of Water Resources when Canyon Lake has water in storage in the Canyon Reservoir equal to or less than 895 msl (274,800 acre-feet or approximately 72.5% full).**

Requirements for Initiation (Stage 1) Mild Water Shortage

Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses as defined in this plan in section H.

Requirements for Termination (Stage 1)

The plan may be rescinded when the General Manager feels it is appropriate.

**Stage 2 Trigger – Canyon Lake falls to 890' msl or approximately 64% full**

Requirements for Initiation (Stage 2) Moderate Water Shortage Conditions

Customers shall be required to comply with the Stage 2 requirements and restrictions on certain non-essential water uses defined in this Plan when the water in Canyon Reservoir is equal or less than 890 feet msl (242,872 acre-feet or approximately 64% full). The goal is to achieve a 10% reduction in use. The restrictions are outlined in section H of the plan.

Requirements for Termination (Stage 2)



Stage 2 of the Plan may be rescinded when the GBRA General Manager, or his designee, determines that the condition listed has ceased to exist for a period of (30) consecutive days. Upon termination of the restrictions of the Stage, the restrictions of the prior Stage become operative.

### **Stage 3 Trigger – Canyon Lake falls to 885' msl or approximately 56% full**

#### **Requirements for Initiation (Stage 3) Severe Water Shortage Condition**

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 3 of this Plan when the water in storage in Canyon Reservoir is equal to or less than 885 feet msl (213,386 acre-foot or approximately 56% full). The goal is to achieve a 15% reduction in water usage.

#### **Requirements for Termination (Stage 3)**

Stage 3 of the Plan may be rescinded when the GBRA General Manager, or his designee, determines that the condition listed has ceased to exist for a period of (30) consecutive days. Upon termination of the restrictions of the Stage, the restrictions of the prior Stage become operative.

### **Stage 4 Trigger – EMERGENCY Water Shortage Conditions**

#### **Requirements for Initiation (Stage 4) Emergency Water Shortage Condition**

Springs Hill WSC will recognize that an emergency water shortage exists when:

1. Mechanical or system failures occur, which cause unprecedented loss of capability to provide water service.
2. Natural or manmade contamination of the water supply source occurs.
3. A drought of greater severity than the Drought of Record occurs. The GBRA Board of Directors will declare a drought worse than the Drought of Record when the following three conditions are met simultaneously:
  - a. Drought at least 24 months (24 months since Canyon Reservoir was last full-909' msl)
  - b. The cumulative inflow deficit since the beginning of the drought exceeds the envelope curve for cumulative inflow deficits by at least 5% for six consecutive months
  - c. The storage of Canyon Reservoir is less than elevation 885' msl (213,386 acre-feet or approximately 56% full)

#### **Requirements for Termination (Stage 4)**

Stage 4 of the Plan may be rescinded when the GBRA Board of Directors cancel such a declaration based on the improved condition of Canyon Reservoir.

#### H. ACTIONS REQUIRED FOR DROUGHT RESPONSE STAGES

The Corporation's field services manager, or his/her designee, shall monitor the GBRA Web site on a daily basis and, in accordance with the triggering criteria set forth in this Plan, shall determine that a mild, moderate, or severe water shortage condition exists and shall implement the following notification procedures:

##### **Notification of the Public**

The Corporation's general manager or his/her designee shall notify the public by means of the following methods as appropriate to each condition:

1. Publication in a newspaper of general circulation.
2. Direct mail to each customer, notes placed in billing envelopes.
3. Public service announcements on television or radio, or through signs posted in public places throughout the SHWSC service area.
4. Notification through the use of telephone networks to neighborhood associations and other public entities.
5. Posting on the SHWSC website [www.springshill.org](http://www.springshill.org).

The Corporation's general manager or his/her designee shall notify directly, or cause to be notified directly, the following individuals and entities as required:

1. Members of the Board of Directors.
2. Fire Chiefs and/or County Emergency Management Coordinator(s).
3. State Disaster District and/or Department of Public Safety.
4. TCEQ (required when mandatory restrictions are imposed).
5. Major water users.
6. Critical water users, (i.e., hospitals).

##### **Stage 1 Response – MILD Water Shortage Conditions**

Goal: Achieve a voluntary 5% reduction in comparison to the average monthly usage by a residential customer.

##### Supply Management Measures (Stage 1)

SHWSC shall:

1. Reduce flushing to a minimum as required by TCEQ requirements.
2. Notification of customers by mail with suggestions for ways to reduce usage.
3. Meter readings reviewed for high usage
4. Initiate voluntary water use restrictions.

5. Issue warnings as necessary.

#### Water Use Restrictions (Stage 1)

1. Water customers will be requested to voluntarily limit the irrigation of landscaped areas and non-essential water use as defined in this Plan to three times a week and to irrigate landscapes only between the hours of 8:00 pm and 10 am. Irrigation of landscaped areas is permitted at anytime if it is by means of a hand-held hose or faucet filled bucket of five gallons or less.
2. No washing of parking lots, driveways, sidewalks or streets unless for health or safety reasons.
3. Swimming pools must be at least 25 percent covered by evaporation shields when not in active use.

#### **Stage 2 Response – MODERATE Water Shortage Conditions**

**Goal:** Achieve a 10 percent reduction in daily water demand.

#### Supply Management Measures (Stage 2)

SHWSC shall:

1. Reduce or discontinue flushing of water mains.
2. Notify customers by mail with suggestions for ways to reduce usage.
3. Field personnel to monitor and report excessive usage.
4. Initiate mandatory water use restrictions.
5. Issue warnings and fines as necessary as provided in the tariff rules.
6. Ensure all production equipment is operating at maximum capacity.

#### Water Use Restrictions (Stage 2)

Under threat of penalty for violation, the following water use restrictions shall apply to all persons:

1. Landscape watering is prohibited except on designated watering days between 8 pm. and 10 am, and is further restricted such that properties with an odd numbered address may landscape water only on Mondays, Wednesdays and Fridays and properties with an even numbered address may landscape water only on Tuesdays, Thursdays and Saturdays. However, landscape watering by means of a bucket, hand-held or soaker hose, or a properly installed drip irrigation system is permitted at any time. This subsection does not apply to reclaimed, recycled or reuse water.

2. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 8:00 pm and 10:00 am. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public is contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.
3. Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or spas is prohibited except on designated watering days between the hours of 8:00 pm and 10:00 am.
4. Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
5. Use of water from hydrants shall be limited to fire fighting related activities, or other activities necessary to maintain public health, safety and welfare. Use of water from designated fire hydrants for construction purposes may be allowed by special permit from SHWSC.
6. Use of potable water for irrigation of golf course greens and tees, and fairways is prohibited except on designated watering days between the hours of 8:00 pm and 10:00 am. However, if the golf course utilizes a water source other than that provided by SHWSC, or uses reclaimed water the facility shall not be subject to these rules.
7. All restaurants are prohibited from serving water to patrons except upon request of the patron.
8. The following uses of water are defined as non-essential and are prohibited:
  - a. Use of water to wash down sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
  - b. Use of water to wash down buildings or structures for purposes other than immediate fire protection;
  - c. Use of water for dust control; unless reclaimed water is used.
  - d. Flushing gutters or permitting water to run or accumulate on any gutter or street; and
  - e. Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

### **Stage 3 Response – SEVERE Water Shortage Conditions**

**Goal:** Achieve a 15 percent reduction in daily water demand.

#### **Supply Management Measures (Stage 3)**

SHWSC shall:

1. Reduce or discontinue flushing of water mains.
2. Notify customers by mail with suggestions for ways to reduce usage.
3. Field personnel to monitor and report excessive usage.
4. Initiate severe mandatory water use restrictions.
5. Issue warnings and fines as necessary.
6. Prohibit nearly all outside watering unless using recycled water.
7. Prohibit non-essential uses.
8. Ensure all production equipment is operating at maximum capacity.
9. Activate interconnects and purchase water from neighboring utilities if available.

#### Mandatory Water Use Restrictions (Stage 3)

Under threat of penalty for violation, all requirements of Stage 2 shall remain in effect during Stage 3, but more severe restrictions will apply as follows:

1. Irrigation of landscaped areas is absolutely prohibited unless using recycled water or by means of hand held hose or faucet filled watering can of five gallons or less.
2. The watering of golf course tees is prohibited unless the golf course utilizes a water source other than potable water from SHWSC. Reclaimed water if available may be used.
3. The use of water for construction purposes from designated fire hydrants under special permit will be discontinued. Reclaimed water if available may be used.
4. The use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6:00 a.m. and 10:00 a.m. and between 8:00 p.m. and 10:00 p.m.
5. The filling, refilling, or adding of water to swimming pools, wading pools, or spas is prohibited.
6. Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system or use reclaimed water.
7. No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for

approval of such applications will be suspended for such time as this drought response stage or more severe restrictions shall be in effect.

**Stage 4 Response – SEVERE Water Shortage Conditions**

**Goal:** Achieve a 25 percent reduction in daily water demand.

**Supply Management Measures (Stage 4)**

SHWSC shall:

1. Discontinue flushing water mains.
2. Activate inter-connections and purchase water from neighboring utilities if available.

**Water Use Restrictions (Stage 4)**

All requirements of Stage 1, 2, and 3 shall remain in effect during Stage 4 except:

1. Irrigation of landscaped areas is absolutely prohibited unless using recycled water or by means of a hand-held hose or faucet filled watering can of five-gallons or less.
2. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is absolutely prohibited, unless using recycled water.

In the event that water shortage conditions threaten public health, safety, and welfare, the Corporation's general manager is hereby authorized to allocate water according to the following allocation plan:

**Single – Family Residential Customers (Emergency Allocations)**

The allocation to residential water customers residing in a single-family dwelling shall be as follows:

<b><u>PERSONS PER HOUSEHOLD</u></b>	<b><u>GALLONS PER MONTH</u></b>
1 or 2	5,000
3 or 4	6,000
5 or 6	7,000
7 or 8	8,000
9 or 10	9,000
11 or more	10,000

"Household" means the residential premises served by the customer's meter. "Persons per Household" includes only those persons currently physically residing at the premises and expected to reside there for the entire billing period.

It shall be assumed that a particular customer's household is comprised of two persons unless the customer notifies the Corporation of a greater number of persons per household on a form prescribed by the general manager. The general manager shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every residential customer. If, however, a customer does not receive such a form, it shall be the customer's responsibility to go to the Corporation office to complete and sign the form claiming more than two persons per household. New customers may claim more persons per household at the time of applying for water service on the form prescribed by the Corporation. When the number of persons per household increases, so as to place the customer in a different allocation category, the customer may notify SHWSC on such form and the change will be implemented in the next practicable billing period. If the number of persons in a household is reduced, the customer shall notify the Corporation in writing within two weeks. In prescribing the method for claiming more than two persons per household, the Corporation shall adopt methods to insure accuracy of the claim.

Residential water customers shall pay the following surcharges:

5% of base for the first 1,000 gallons over allocation.

8% of base for the second 1,000 gallons over allocation.

10% of base for the third 1,000 gallons over allocation.

25% of base for each additional 1,000 gallons over allocation.

Surcharges shall be cumulative.

**Master-Metered Multi-Family Residential Customers (Emergency Allocations)**

The allocation to a customer billed from a master meter which jointly measures water to multiple permanent residential dwelling units (e.g., apartments, mobile homes) shall be allocated 5,000 gallons per month for each dwelling unit unless the customer notifies SHWSC of a greater number on a form prescribed by the general manager. The Corporation's general manager shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every such customer. If, however, a customer does not receive such a form, it shall be the customer's responsibility to go to the Corporation offices to complete and sign the form claiming more than two dwellings. A dwelling unit may be claimed under this provision whether it is occupied or not. New customers may claim more dwelling units at the time of applying for water service on the form prescribed by the Corporation's general manager. If the number of dwelling units served by a master meter is reduced, the customer shall notify the SHWSC in writing within two weeks. In prescribing the method for claiming more than two dwelling units, the general manager shall adopt methods to insure the accuracy of the claim. Customers billed from a master meter under this provision shall pay the following monthly surcharges:

5% of base for 1,000 gallons over allocation up through 1,000 gallons for each dwelling unit.

8% of base thereafter, for each additional 1,000 gallons over allocation up through a second 1,000 gallons for each dwelling unit.

10% of base thereafter, for each additional 1,000 gallons over allocation up through a third 1,000 gallons for each dwelling unit.

25 % of base thereafter for each additional 1,000 gallons over allocation.

Surcharges shall be cumulative.

### **Industrial Customers (Emergency Allocations)**

A monthly water allocation shall be established by the Corporation's general manager or his/her designee, for each non-residential commercial customer other than an industrial customer who uses water for processing purposes. The non-residential customer's allocation shall be approximately 75% of the customer's usage for the corresponding month's billing period for the previous 12 months. If the customer's billing history is shorter than 12 months, the monthly average for the period for which there is a record shall be used for any monthly period for which no history exists. The Corporation's general manager shall give his/her best effort to see that notice of each non-residential customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the SHWSC office to determine the allocation. Upon request of the customer or at the initiative of the general manager the allocation may be reduced or increased if, (1) the designated period does not accurately reflect the customer's normal water usage, (2) one nonresidential customer agrees to transfer part of its allocation to another nonresidential customer, or (3) other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the general manager or alternatively, a special water allocation review committee. Non-residential commercial customers shall pay the following surcharges:

Customers whose allocation is 1,000 gallons through 10,000 gallons per month:

5% of base per thousand gallons for the first 1,000 gallons over allocation.

10% of base per thousand gallons for the second 1,000 gallons over allocation.

20% of base per thousand gallons for the third 1,000 gallons over allocation.

25% of base per thousand gallons for each additional 1,000 gallons over allocation.



Customers whose allocation is greater than 10,000 gallons per month or more:

- 1.2 times the block rate for each 1,000 gallons in excess of the allocation up through 5 percent above allocation.
- 1.5 times the block rate for each 1,000 gallons from 5 percent through 10 percent above allocation.
- 1.8 times the block rate for each 1,000 gallons from 10 percent through 15 percent above allocation.
- 2.0 times the block rate for each 1,000 gallons more than 15 percent above allocation.

The surcharges shall be cumulative. As used herein, "block rate" means the charge to that customer per 1,000 gallons at the regular water rate schedule at the level of the customer's allocation.

#### **Industrial Customers (Emergency Allocations)**

A monthly water allocation shall be established by the Corporation's general manager or his/her designee, for each industrial customer, which uses water for processing purposes. The industrial customer's allocation shall be approximately 90% of the customer's water usage baseline. Ninety days after the initial imposition of the allocation for industrial customers, the industrial customer's allocation shall be further reduced to 85% of the customer's water usage baseline. The industrial customer's water use baseline will be computed on the average water use for the 12-month period ending prior to the date of implementation of Stage 2 of the Plan, if the industrial water customer's billing history exists. The general manager shall give his/her best effort to see that notice of each industrial customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the Corporation to determine the allocation, and the allocation shall be fully effective notwithstanding the lack of receipt of written notice. Upon request of the customer or at the initiative of the Corporation's general manager, the allocation may be reduced or increased: (1) if the designated period does not accurately reflect the customer's normal water use because the customer had shutdown a major processing unit for repair or overhaul during the period, (2) the customer has added or is in the process of adding significant additional processing capacity, (3) the customer has shut down or significantly reduced the production of a major processing unit, (4) the customer has previously implemented significant permanent water conservation measures such that the ability to further reduce water use is limited, (5) the customer agrees to transfer part of its allocation to another industrial customer, or (6) if other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the Corporation's general manager or alternatively, a special water allocation review committee. Industrial customers shall pay the following surcharges:

Customers whose allocation is 1,000 gallons through 10,000 gallons per month:

5% of base per thousand for the first 1,000 gallons over allocation.

10% of base per thousand gallons for the second 1,000 gallons over allocation.

20% of base per thousand gallons for the third 1,000 gallons over allocation.

25% of base per thousand gallons for each additional 1,000 gallons over allocation.

Customers whose allocation is greater than 10,000 gallons per month or more:

1.2 times the block rate for each 1,000 gallons in excess of the allocation up through 5 percent above allocation.

1.5 times the block rate for each 1,000 gallons from 5 percent through 10 percent above allocation.

1.8 Times the block rate for each 1,000 gallons from 10 percent through 15 percent above allocation.

2.0 times the block rate for each 1,000 gallons more than 15 percent above allocation.

The surcharges shall be cumulative. As used herein "block rate" means the charge to the customer per 1,000 gallons at the regular water rate schedule at the level of the customer's allocation.

## I. ENFORCEMENT

1. No customer shall allow the use of potable water from SHWSC for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Water Conservation and Drought Contingency Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by the general manager, or his/her designee.
2. The customer will be notified by written notice of a violation on its property. After written notice, SHWSC may install a flow restricting device in the service line for the property to limit the amount of water that will pass through the meter during a 24 hour period. SHWSC will charge the customer the actual costs of installing and removing the flow restricting device. After written notice, SHWSC may discontinue service to the customer for a period of 7 days or until the end of the month, whichever is less. SHWSC's reconnection fees will apply to re-establish service.

## J. VARIANCES

The Corporation's general manager may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure

to grant such variance would cause a condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance or if one or more of the following conditions are met:

1. Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.
2. Alternative methods can be implemented which will achieve the same level of reduction in water use.
3. The person or entity requesting the variance can demonstrate that severe financial hardship or property damage will result if the variance is not granted.

Persons requesting an exemption from the provisions of this ordinance shall file a petition for variance with the Corporation's general manager within five days after the Plan or a particular drought response stage has been invoked. The Corporation staff will make every effort to work with customers to establish a satisfactory solution to water use problems. All petitions for variances shall be reviewed by the Corporation's general manager or his/her designee, and shall include the following:

1. Name and address of the petitioner(s).
2. Purpose of water use.
3. Specific provision(s) of the Plan from which the petitioner is requesting relief.
4. Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
5. Description of the relief requested.
6. Period of time for which the variance is sought.
7. Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
8. Other pertinent information.

Variances granted by SHWSC shall be subject to the following conditions, unless waived or modified by the Corporation's general manager or his/her designee:

1. Variances granted shall include a timetable for compliance.
2. Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.
3. No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

#### K. SEVERABILITY

It is hereby declared to be the intention of the Board of Directors of SHWSC that the sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such as unconstitutionality shall not affect any of the remaining phrases,

clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the Board of Directors of SHWSC without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.