



DROUGHT CONTINGENCY PLAN

for

RETAIL PUBLIC WATER SUPPLY

City of Sugar Land
P.O. Box 110
Sugar Land, Texas 77487

PWS # 0790005	Main System
PWS # 0790354	RiverPark System
PWS # 0790253	New Territory System
PWS # 0790296	Greatwood System

Update August 2017

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Section 1: Introduction

Drought, catastrophic events, and other uncontrollable circumstances can severely disrupt the normal supply, production, and delivery of water to both potable and raw surface water customers. As a naturally occurring part of the Texas climate and water system operations, these situations necessitate a thorough assessment of water resources, production, and delivery capability. Planning must also consider water uses as well as customer impact, regulatory penalties, and potential damage to infrastructure and property.

To meet the terms of the Fort Bend Subsidence District (FBSD) Regulatory Plan the City of Sugar Land (“City”) has converted a portion of its potable water supply from groundwater to surface water. The City’s Groundwater Reduction Plan (GRP) is the roadmap to meet the FBSD regulatory requirement. The primary implementation strategy of the GRP is the City’s Surface Water Treatment Plant (“SWTP”), which supplies 9 million gallons of water a day to the City’s main potable water system (“Main”). Treated water from the SWTP increases the Main system’s total production capacity, however FBSD limits on groundwater withdrawals must be considered when planning for drought and emergencies. Even though the City’s groundwater capacity can supply potable needs when surface water supplies are restricted, the City anticipates limiting utilization of groundwater supplies to remain compliant with FBSD regulations.

The City’s potable water production, delivery infrastructure, and operations includes four separate potable water systems after the planned annexation of the of Greatwood and New Territory communities in December 2017.

The City’s Main system (PWS 0790005) operates 16 groundwater wells and receives treated surface water from the City’s Surface Water Treatment Plant. The Main system supplies treated potable water wholesale to MUD 128 (Riverstone Development) through an open interconnection.

The City’s RiverPark potable system (“RiverPark”) (PWS 0790354) is supplied from two groundwater wells. The RiverPark system is not interconnected to the City’s Main system, but does have an emergency interconnect with the Greatwood System.

The New Territory system (PWS 0790253) is supplied from three groundwater wells.

The Greatwood system (PWS 0790296) is supplied by four wells and there is an emergency interconnect with the RiverPark System and Fort Bend County MUD 116. With annexation, Fort Bend County MUD 192 (Greatwood Lake neighborhood) will become the City’s wholesale customer.

The City also supplies reclaimed water to Fort Bend County MUD 128 and untreated surface water to several customers for irrigation and amenity lake fill.

The City will implement this Plan’s judicious water management strategies during drought or emergency situations to assure adequate supply for essential uses such as water required for the protection of public health, safety, welfare and protect the integrity of the City’s water facilities. Depending on the situation that warrants implementation of this plan (supply limitations, infrastructure failure, or risk of regulatory non-compliance), implementation and strategies may apply to all or only portion of the City’s water customers. Refer to Section 8 for implementation criteria.

Section 2: Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply, to protect and preserve public health, welfare, and safety, and to minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the City hereby adopts the following regulations and restrictions on the delivery and consumption of water.

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

Section 3: Production and Delivery

Operations and Metering

The City's commitment to judicious water management includes operational policies and programs reflected in the City's Water Conservation Plan. The City's surface water diversion and groundwater production meters are maintained within an accuracy of plus or minus 5% in order to account for the water diverted from the supply source. The City also routinely tests and repairs or replaces larger customer meters; the small meter replacement program coupled with short leak repair times, reporting of water used for system flushing, and aggressive measures to curb unauthorized use contribute to reduced water loss within the City's potable systems.

Peak Demand

During the summer season, 30% to 40% of water demand comes from seasonal demand, directly attributed to landscape irrigation, and accounts for 50% or more of peak daily water use depending on temperature and rainfall. During a drought, seasonal use increases by an additional 20%. The state of Texas experienced one of its worst drought on record in 2011. In 2011, the City's summer monthly average production was 48% greater than the base winter average production. Building water supply infrastructure to meet infrequent high peak demands is costly and fiscally imprudent, however these high peak demands should be considered when planning for future water facilities.

System Repairs

The City saw a 31% increase in reported water leaks from August of 2010 to August of 2011. This illustrates that dry conditions not only cause high customer demand, but increase water loss from leaks or system mechanical failure. During drought period, the peak daily demand to average daily demand ratio increases and this type of peak demand pushes the system limits. The City commits additional staff and resources to system operations and repairs to mitigate the impact of extreme conditions on infrastructure.

Pressure Drops

The most unfavorable condition occurs when the peak daily demand causes a drop in system pressure below the City's service level of 45 psi in major trunk lines, which has been established to assure sufficient pressure to meet customer and fire flow needs. If the pressure drops below 20 psi, regulation requires a boil water notice be delivered to all impacted customers. The potential low pressure issue created by peak demand in the summer season can be directly attributed to irrigation, leaks, equipment failure and non-essential water uses. This Plan aims to effectively reduce the use of water to prevent pressure drops.

Wholesale Contract Provisions

The City's wholesale customers will adopt and implement either the City's Drought Contingency Plan or an equal or more stringent Drought Contingency Plan. To comply with Texas Water Code (TWC) Section 11.039, when this Plan is in effect, water will be supplied to wholesale customers as it is supplied to city customers. Any future wholesale water agreements will comply with TWC Section 11.039. Additional information can be found in the adopted Wholesale Drought Contingency Plan.

Section 4: Public Education

The City will educate the public and provide opportunity for public input through the established communication methods used to provide information about this Plan, 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 news releases, the City's website, Sugar Land Today, and at various events throughout the year.

Section 5: Coordination with Regional Water Planning Groups

The service area of the City is located within the Region H Water Planning Group and the City has provided a copy of this Plan to the Region H. The City has filed a copy with the Texas Water Development Board and the Texas Commission on Environmental Quality (TCEQ).

Section 6: Authorization

The city manager has the authority to declare or initiate and terminate drought stage or other water supply emergency response measures and the city council will confirm or ratify the city manager's decisions and actions at a subsequent city council meeting. The city manager is authorized and directed to implement the applicable provisions of the drought contingency plans upon determination that such implementation is necessary to protect public health, safety, and welfare.

Section 7: Application

This Plan applies to all customers and properties that utilize potable water provided by the City.

Section 8: Criteria for initiation and termination of Emergency Response Stages

The City Manager, or his/her designee, may institute any response stage in this Plan if the conditions indicate that there will be insufficient water supply or delivery to protect public health and meet regulatory requirements. Water supply, demand, and production capacity conditions will be measured on a daily basis. Production capacity refers to the combined capacity of all potable groundwater and surface water production.

The City Manager, or his/her designee, will determine when conditions warrant initiation or termination of each stage of the Plan, that is, when the specified "triggers" are reached. Factors that may trigger this Plan include:

- Demand increases that strain production capacity;
- Loss of production or delivery capacity;
- Facilities such as wells or surface water treatment plant offline;
- Major infrastructure repairs impede delivery or reduce pressure;
- Utilizing groundwater capacity threatens regulatory penalties from FBSD; or
- Surface water supply becomes limited or unavailable

Section 9: Definitions

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

Aesthetic water use:

- Use of water to fill, refill, or add to any indoor or outdoor swimming pools or Jacuzzi-type pools;
- Use of water to fill, refill, or add to a fountain, pond, or lake for aesthetic or scenic purposes except to support aquatic life; or
- Use of water for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

Agricultural irrigation: means irrigation for the purpose of growing crops commercially for human consumption or to use as feed for livestock or poultry.

Aquatic life: means a vertebrate organism dependent upon an aquatic environment to sustain its life.

City: means the City of Sugar Land.

City manager: means the city manager of the City or any person designated by the city manager to act on behalf of the city manager.

Commercial: means businesses, industrial companies, non-profit establishments, governmental entities such as health care facilities, retails, hotels and motels, restaurants, and office buildings.

Conservation: means 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 so that a supply is conserved and made available for future and/or alternative uses.

Customer: means any person, individual, corporation, partnership, association, company, organization, or any other legal entity using water supplied by the City.

Drip irrigation: means a method of irrigation which is typically installed below ground and consists of porous piping that allows the application of water at a slow and constant rate.

Domestic water use: means water use for personal needs or for household or sanitary purposes such as drinking, bathing, cooking, and sanitation.

Drought: means any condition, whether man-made or natural, where the available water supply or resources are not meeting the water demand, or if the water supply or resources are being depleted at a faster rate than they are being replenished.

Drought contingency plan: means the drought contingency plan for retail public water supply adopted by city council.

Essential water use: means the use of water required for the protection of public health, safety, and welfare.

Foundation: means the soils directly abutting the foundation of a building, structure, or improvement on land.

Hand-held hose: means a hose physically held by one person, fitted with a manual or automatic shutoff nozzle.

Health care facility: means any hospital, clinic, nursing home or other health care or medical research facility.

Hose-end sprinkler: means a sprinkler that applies water to landscape plants that is piped through a flexible, movable hose.

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

Irrigation system: means a site-specific system of delivering water, generally for landscaping irrigation via a system of pipes or other conduits installed below ground.

Landscape irrigation: means the application of water to any landscaping plant for growth or maintenance used for the irrigation and maintenance of landscaped areas with hose-end sprinklers or automatic irrigation systems, whether publicly or privately owned, including residential and commercial lawns, gardens, parks, golf courses, and street rights-of-way.

Non-essential water use: means water for use that is neither essential nor required for the protection of public health, safety, and welfare, including, but not limited to:

- Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle.
- Use of water to wash-down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas.
- Use of water to wash down buildings or structures for purposes other than immediate fire protection.
- Use of City's water to irrigate golf courses.
- Flushing gutters or permitting water to run or accumulate in any gutter or street.
- Failure to repair a controllable leak(s) within a reasonable period after receiving notice directing the repair of such leak(s).
- Use of water from fire hydrants for construction purposes or any purposes other than firefighting or meet water quality regulations.
- Adding new transient construction meters.

Person: means any natural person or legal entity such as an individual, business, association, corporation, firm, organization, governmental, or other natural, business, or legal entity that receives, requests, manages, uses, maintains, or is responsible for water utility service at a service address, whether or not the person or entity is an owner, occupant, or person in control of the

premises or a person authorized by the owner, occupant, or person in control of the premises, or customer or account holder of the city water utility.

Positive shut-off nozzle: means a valve that is held in a closed position by system pressure until overridden by an outside force.

Public health and safety: means such amount of water as necessary to sustain human life, reasonable standards of hygiene and sanitation, and fire suppression.

Residential: means a single or multi-family dwelling unit and the consumption or use of water is for personal needs or for household or sanitary purposes, such as drinking, bathing, heating, cooking, cleaning, and sanitation.

Sprinkler: means an above ground irrigation device that may be attached to a garden hose or in-ground irrigation system. This includes spray heads, rotor heads, and oscillating devices.

Water: means potable water supplied by a water purveyor, potable water withdrawn from any groundwater well, surface water from any river, creek, natural watercourse, pond, lake, or reservoir, and recycled water supplied by a water purveyor.

Watering day: means a day designated for landscape watering.

(1) Drought stage 1 and 2:

a. *Residential customers.* Landscape irrigation watering days are their established neighborhood solid waste collection days between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight.

b. *Commercial customers, agricultural irrigation, green space and right-of-way.* Landscape irrigation watering days are Wednesday and Saturday between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight.

(2) Drought stage 3:

a. *Residential customers.* Landscape irrigation are allowed only one (1) day a week on the customers' designated recyclable waste collection day between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight.

b. *Commercial customers, agricultural irrigation, right-of-way, and greenspace irrigation.* Landscape irrigation are only allowed on Wednesday between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight.

Section 10: Year Round Water Efficiency

Year round water efficiency is a part of the City's plan to implement judicious water management strategies to ensure the integrity of the City's water facilities and prepare for potential drought. Engaging in water efficiency year-round conserves water and establishes practices that can minimize the effect of drought.

Supply Management Measures:

- Reduced flushing of water mains unless necessary to meet regulatory requirements or water quality concerns.

Voluntary Water Conserving Measures:

- Customers are encouraged to conserve water when possible without jeopardizing sanitation and personal or public health.
- Residential, Commercial, and Rights-of-way customers are strongly encouraged to voluntarily limit landscape irrigation with hose-end sprinklers or automatic irrigation systems to no more than two (2) days-a-week. Suggested residential watering days are the established neighborhood solid waste collection days. Commercial, green space and rights-of-way irrigation is encouraged on Wednesday and Saturday only. Irrigation of landscaped areas and structure foundations is optional at any time if it is by means of a hand-held hose with a positive shut-off nozzle, a faucet filled bucket or water can of five (5) gallons or less, or drip irrigation system.
- Customers are encouraged to reduce the volume of water used for non-essential and aesthetic water needs.

Section 11: Triggers and Response Stages

STAGE 1 - Drought Conditions

Stage 1 Triggers – Notification of Drought Conditions in Fort Bend County

Requirements for initiation

Customers are strongly encouraged to comply with certain water uses in Stage 1 of the Plan when:

- The City is notified of the Governor’s proclamation of drought in Fort Bend County.

Requirements for termination

Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist.

Stage 1 Response – Notification of Drought Conditions in Fort Bend County

Residential customers are strongly encouraged to voluntarily limit landscape irrigation with hose-end sprinklers or automatic irrigation systems to no more than two (2) days-a-week between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight. Suggested residential watering days are the established neighborhood solid waste collection days (Appendix C). However, irrigation of landscaped areas and structure foundations is permitted at any time if it is by means of a hand-held hose with a positive shut-off nozzle, a faucet filled bucket or water can of five (5) gallons or less, or drip irrigation system.

Commercial, green space and rights-of-way customers are strongly encouraged to voluntarily limit landscape irrigation with hose-end sprinklers or automatic irrigation

systems to no more than two (2) days-a-week between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight on Wednesday and Saturday.

Wholesale customers will encourage customers to voluntarily reduce landscape use to no more than two (2) days a week between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight. Additional information can be found in the adopted Wholesale Drought Contingency Plan.

Customers are encouraged to reduce the volume of water used for non-essential and aesthetic water needs.

STAGE 2 - Severe Water Distress Conditions

Stage 2 Triggers–Severe Water Distress Conditions

Requirements for initiation

Customers shall be required to comply with the requirements and restrictions on certain water uses in Stage 2 of the Plan when:

- Average total daily water demand equals or exceeds 65% of production capacity for three (3) consecutive days; or
- Surface water supplies become limited or surface water treatment capacity is reduced.

Requirements for termination

Stage 2 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of five (5) consecutive days or a time period the City Manager designates. The City will attempt to achieve the target reductions in daily water demand. Upon termination of Stage 2, Stage 1 becomes operative.

In the event that the Surface Water Treatment Plant shall go offline or be limited, Stage 2 of the Plan may be rescinded when daily water demand is sufficiently reduced to meet mandated FBSD conversion rates.

The City Manager has the authority to initiate or terminate this stage at his discretion.

Stage 2 Response–Severe Water Distress Conditions

Target:

Achieve a five (5%) percent reduction in daily water demand, preferably during times of peak water use.

Supply Management Measures:

Discontinued flushing of water mains unless necessary to meet regulatory requirements or water quality concerns.

Mandatory Water Use Restrictions:

Residential water customers are required to limit the irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems to the two (2) days a week that are their neighborhood's designated solid waste collection days (Appendix C), between the hours

of midnight and 10:00 a.m. or 8:00 p.m. and midnight. However, irrigation of landscaped areas and structure foundations is permitted at any time if it is by means of a hand-held hose with a positive shut-off nozzle, a faucet filled bucket or water can of five (5) gallons or less, or drip irrigation system.

Commercial, rights-of-way, and greenspace irrigation customers are required to limit irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems to two (2) days a week (Appendix E) only on Wednesday and Saturday between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight.

Wholesale customers will require customers to limit irrigation with hose-end sprinklers or automatic irrigation systems to two (2) days a week, according to their adopted Drought Contingency Plan, between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight. Additional information can be found in the adopted Wholesale Drought Contingency Plan.

Voluntary Water Use:

Customers are encouraged but not required to reduce non-essential and aesthetic water uses.

STAGE 3 - Critical Water Distress Conditions

Stage 3 Triggers – Critical Water Distress Conditions

Requirements for initiation

Customers shall be required to comply with the requirements and restrictions on certain water uses for Stage 3 of this Plan when:

- Average total daily water demand equals or exceeds 70% of production capacity for three (3) consecutive days; or
- Surface water supplies become limited or surface water treatment capacity is reduced.

Requirements for termination

Stage 3 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of five (5) consecutive days or a time period the City Manager designates. The City will attempt to achieve the target reductions in daily water demand. Upon termination of Stage 3, Stage 2 becomes operative.

In the event that the Surface Water Treatment Plant shall go offline or be limited, Stage 3 of the Plan may be rescinded when daily water demand is sufficiently reduced to meet mandated FBSD conversion rates.

The City Manager has the authority to initiate or terminate this stage at his discretion.

Stage 3 Response – Critical Water Distress Conditions

Target:

Achieve an additional five (5%) percent reduction in daily water demand, preferably during times of peak water use.

Supply Management Measures:

Discontinued flushing of water mains unless necessary to meet regulatory requirements or water quality concerns.

Mandatory Water Use Restrictions:

Residential water customers are required to limit the irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems to one (1) day a week on their designated recyclable waste collection day of the week (Appendix D) between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight. However, irrigation of landscaped areas and structure foundations is permitted at any time if it is by means of a hand-held hose with a positive shut-off nozzle, a faucet filled bucket or water can of five (5) gallons or less, or drip irrigation system.

Commercial, rights-of-way, and greenspace irrigation customers are required to irrigate with hose-end sprinklers or automatic irrigation systems only between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight on Wednesday (Appendix E).

Wholesale customers will require customers to limit irrigation with hose-end sprinklers or automatic irrigation systems to one (1) day a week, according to their adopted Drought Contingency Plan, between the hours of midnight and 10:00 a.m. or 8:00 p.m. and midnight. Additional information can be found in the adopted Wholesale Drought Contingency Plan.

Non-essential and aesthetic water uses are prohibited.

STAGE 4 - Emergency Water Distress Conditions**Stage 4 Triggers–Emergency Water Distress Conditions****Requirements for initiation**

Customers shall be required to comply with the requirements and restrictions for Stage 4 of this Plan when one of the following circumstances applies:

- Average total daily water demand equals or exceeds 80% of production capacity for three consecutive days;
- Surface Water Supplies become limited or surface water treatment capacity is reduced; or
- When the City Manager determines that a water emergency exists that threatens the City's capacity to deliver potable water

Requirements for termination

Stage 4 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days or a time period the City Manager designates.

The City Manager has the authority to initiate or terminate this stage at his discretion.

In the event that the Surface Water Treatment Plant goes offline, Stage 4 of the Plan may be rescinded when daily water demand is sufficiently reduced to meet mandated FBSD conversion rates.

Upon termination of Stage 4, Stage 3 becomes operative.

Stage 4 Response–Emergency Water Distress Conditions

Target:

Achieve an additional five (5%) percent reduction in daily water demand, preferably during times of peak water use.

Supply Management Measures:

Discontinued flushing of water mains unless necessary to meet regulatory requirements or water quality concerns.

Mandatory Water Use Restrictions:

All residential, commercial, rights-of-way, and greenspace landscape irrigation with hose-end sprinklers or automatic irrigation systems is prohibited. However, irrigation of landscaped areas and structure foundations is permitted at any time if it is by means of a hand-held hose with a positive shut-off nozzle, a faucet filled bucket or water can of five (5) gallons or less, or drip irrigation system.

Non-essential and aesthetic water uses are prohibited.

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 will be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage will be in effect. However, the city manager has the authority to approve applications on a case by case basis.

Wholesale customers will prohibit residential, commercial, rights-of-way, and greenspace landscape irrigation with hose-end sprinklers or automatic irrigation systems. Wholesale customers will also prohibit non-essential and aesthetic water uses. Additional information can be found in the adopted Wholesale Drought Contingency Plan.

Curtailing:

Curtailing of water for non-essential businesses and uses will be directed by the City Manager. The City Manager may elect to discontinue service to non-essential businesses and facilities to maintain sufficient water supply for essential uses and facilities (e.g. hospitals, fire flow, etc.). These restrictions will be delivered to business and facilities as specified in the adopted City's Emergency Management Plan.

Section 12: Water Distress Notification

The City Manager, or designee, will implement the following notification procedure when severe, critical or emergency conditions occur.

Notification of the Public:

The Water Utilities Department, in conjunction with the Communications Department, as directed by the City Manager, or his/her designee, will notify the public by:

- City Emergency Notification System;
- Public service announcements, including social media postings;
- Drought status on City homepage with corresponding information;
- Publication in a newspaper of general circulation and/or press release;
- Direct mail to each customer;
- Signs posted in public places and HOA bulletin boards; or
- Take-home fliers at schools/businesses.

Additional Notification:

The City Manager, or his/her designee, will notify directly, or cause to be notified directly, the following individuals and entities:

- Members of the City Council;
- Fire Chief;
- TCEQ (required when mandatory restrictions are imposed);
- Major water users;
- Wholesale customers;
- GRP participants;
- Raw water customers;
- Critical water users (i.e., hospitals, senior care facilities, schools);
- Parks/Street superintendents & public facilities managers; and
- Homeowners Associations.

Section 13: Allocation

The City does not set forth specific triggers in which water for essential uses would be allocated. The City Manager, or his/her designee, would allocate water to essential facilities as determined by the City's existing Emergency Management Plan and other emergency planning and documentation. The City's intent, in an emergency situation, is to restore water service to essential emergency facilities (i.e. hospitals, elderly care facilities, etc.), and then to other essential uses, prior to allocating for uses not related to human consumption, health, and safety.

Section 14: Enforcement

(a) No person shall knowingly or intentionally allow water to be used for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan, or in an amount in excess of that permitted by the water distress response stage in effect at the time.

(b) Any person who violates this Plan is guilty of a an offense and, upon conviction shall be punished by a fine as established in the City's Code of Ordinances and as amended from time to time. Each day that one or more of the provisions of this Plan is violated shall constitute a separate offense. If a person is convicted of three or more distinct violations of this Plan, the Director, or designee, shall, upon due notice to the person, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of a re-connection charge, as established in the City's Code of Ordinances, as amended from time to time, and any other costs incurred by the City in discontinuing service. In addition, suitable assurance must be given to the Director that the same action shall not be repeated. Compliance with this Plan may also be sought through injunctive relief in the district court.

(c) Any person, including a water customer of the City, in apparent control of the property where a violation occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the person's property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation. Parents shall be presumed to be responsible for violations of their children under the age of 18 and proof that a violation committed by a child on property within the parents' control shall constitute a rebuttable presumption that the parent committed the violation.

(d) Any City employee designated by the City Manager may issue a citation to a person he/she reasonably believes to be in violation of this Ordinance.

Section 15: Variances

The City Manager, or his/her designee, 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 an emergency conditions adversely affecting the health, sanitation, or fire protection of the public or the person requesting such variance and if one or more of the following conditions are met:

- 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; or
- Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Ordinance must file a petition for variance with the City within 5 days after the Plan or a particular drought response stage has been initiated. All petitions for variances will be reviewed by the City Manager, or his/her designee, and shall include the following:

- Name and address of the petitioner(s);
- Purpose of water use;
- Specific provision(s) of the Plan from which the petitioner is requesting relief;
- 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;
- Description of the relief requested;

- Period of time for which the variance is sought;
- 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; and
- Any other pertinent information.

Variances granted by the City will be subject to the following conditions, unless waived or modified by the City Manager or his/her designee:

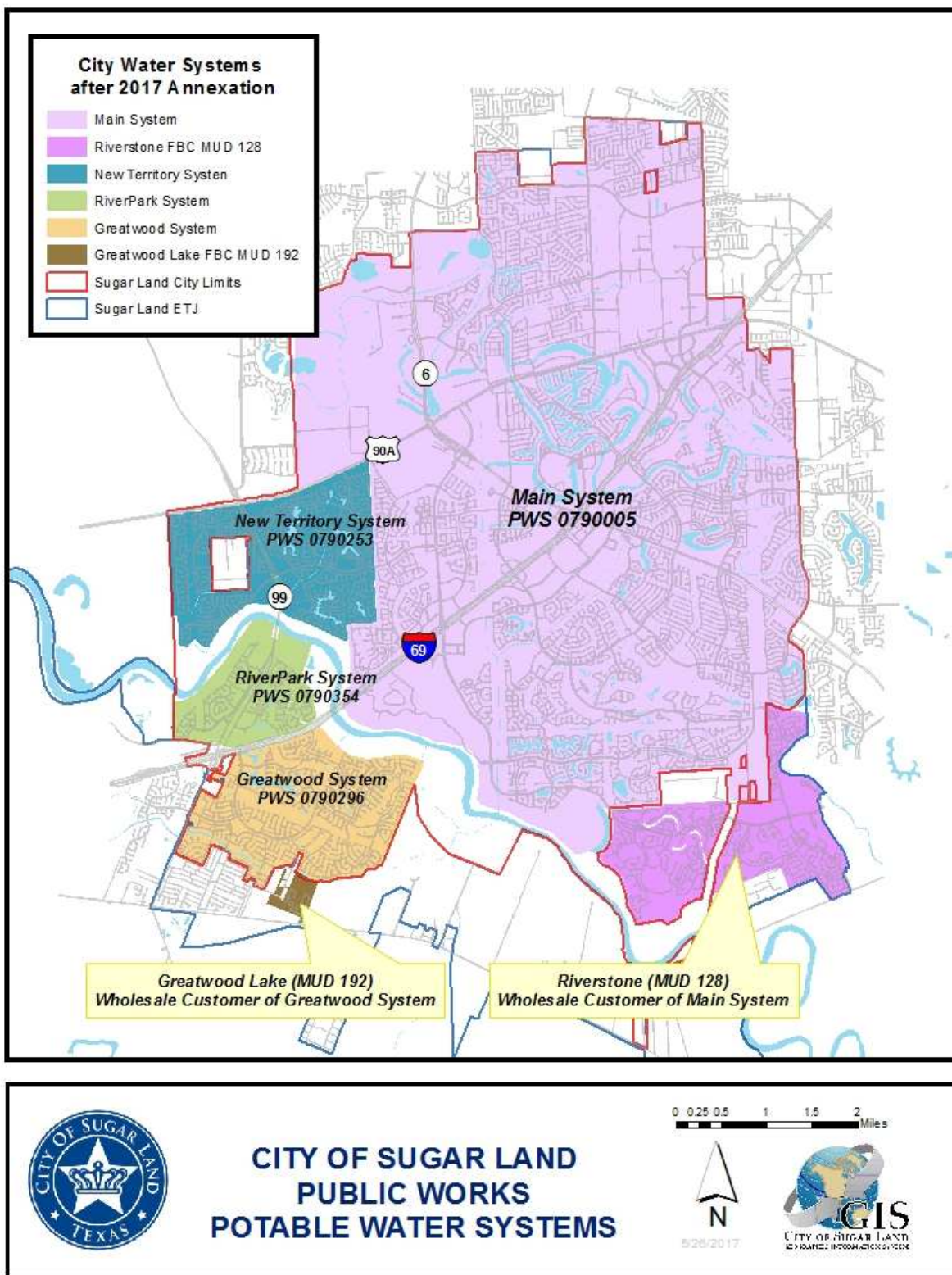
- Variances granted will include a timetable for compliance;
- Variances granted will expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements; and
- No variance will be retroactive or otherwise justify any violation of this Plan occurring prior to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

Appendix A

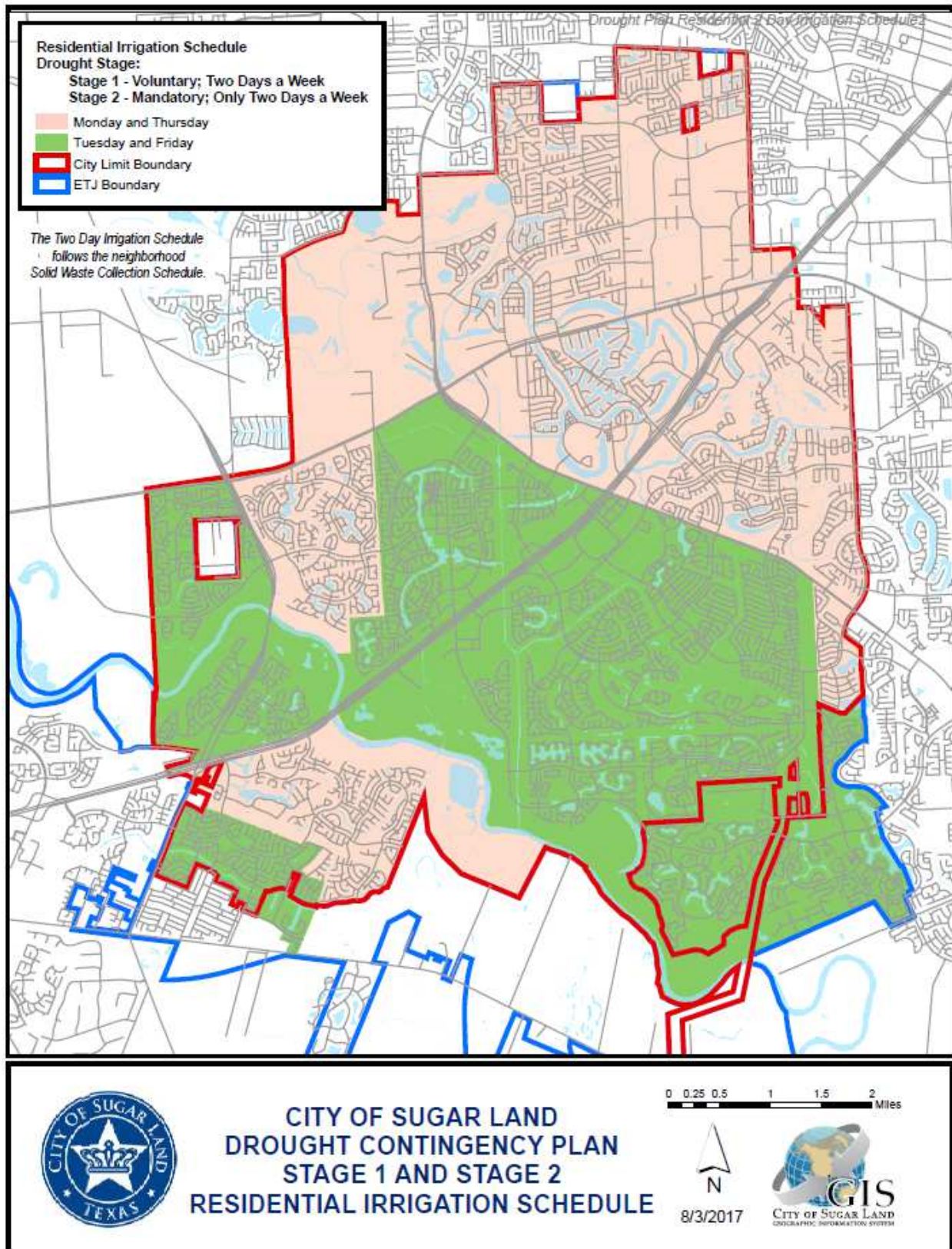
Drought Trigger and Response Quick Reference Chart

	Year Round Efficiency	Stage I Notification of Drought	Stage II Severe Distress	Stage III Critical Distress	State IV Emergency
Trigger					
Three day average demand	Efficient Water Management Practices	Governor's Proclamation of Drought in Fort Bend County	65% production capacity	70% production capacity	80% production capacity
Surface Water Treatment Plant					offline for > 30 days
Irrigation					
Residential	Voluntary	Voluntary	Mandatory	Mandatory	Prohibited
Commercial	Maximum	Maximum	Maximum	Maximum	
Right of Way Watering	Two Day	Two Day	Two Day	One Day	
Aesthetic Water Use					
filling pools, fountains, ponds, and lakes filling reflecting pools; filling water gardens water use for scenic purposes	Voluntary Reduction	Voluntary Reduction	Voluntary Reduction	Prohibited	Prohibited
Non-Essential Water Use					
washing cars; power washing; washing sidewalks; washing buildings gutter flushing	Voluntary Reduction	Voluntary Reduction	Voluntary Reduction	Prohibited	Prohibited
Main Line Flushing	Reduce unless necessary to meet regulation or water quality concerns				
New Meters					No application for new meters
Curtailment					If City Manager deems necessary

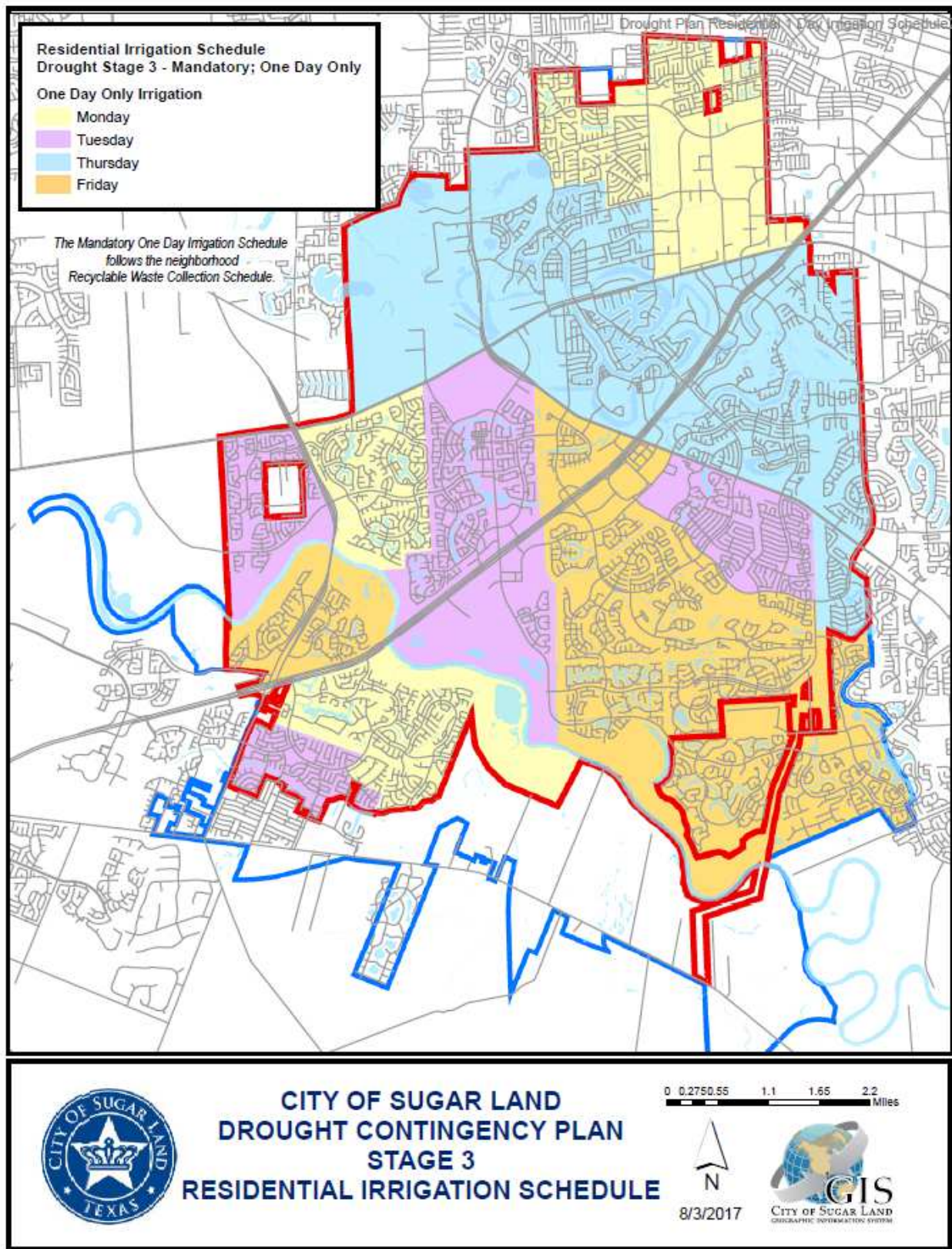
Appendix B City of Sugar Land Water Service Area (after December 2017 Annexation)



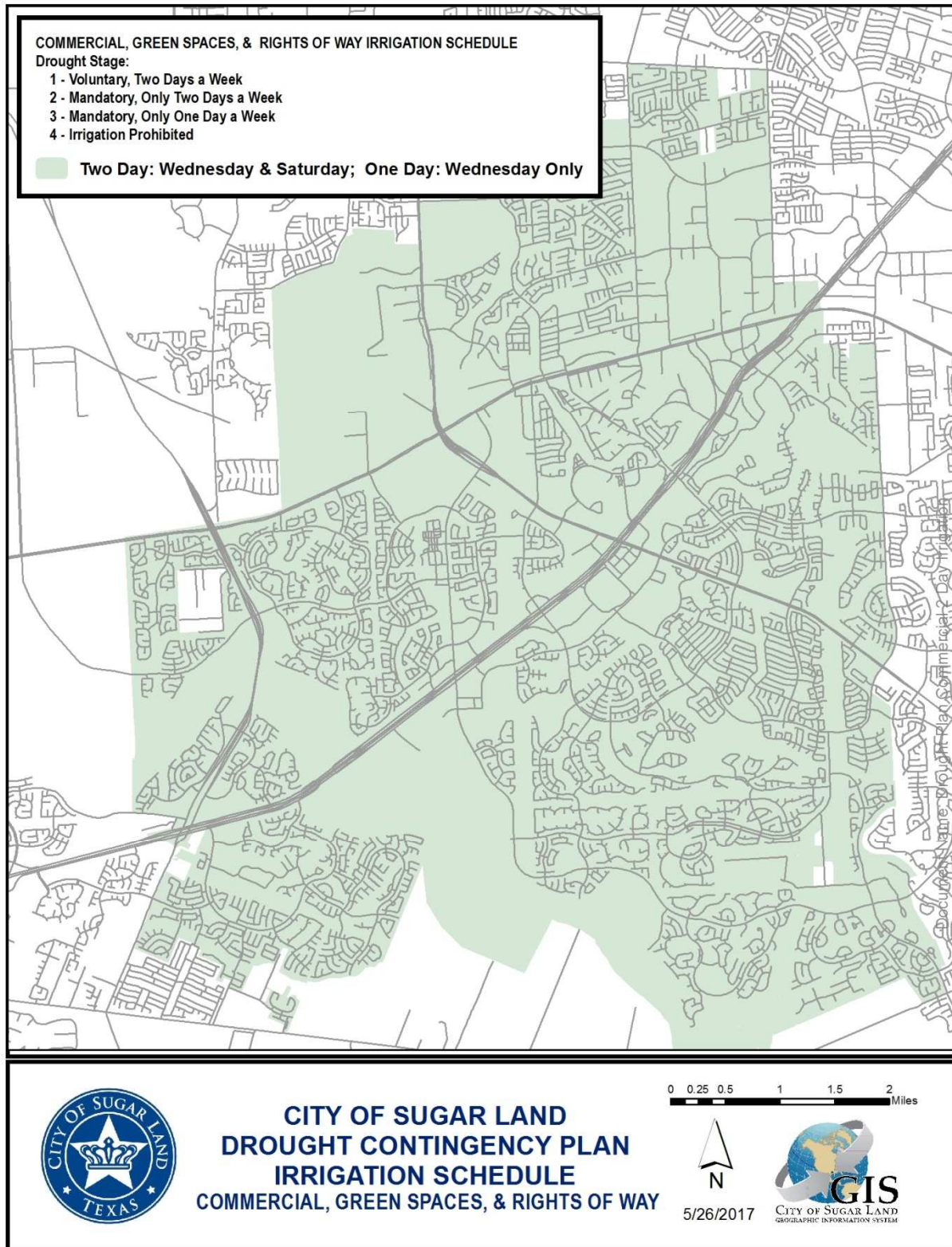
Appendix C Residential Irrigation Schedule Drought Stage 1 and 2



Appendix D Residential Irrigation Schedule Drought Stage 3



Appendix E Commercial, Green Space, and Rights of Way Irrigation Schedule



Appendix F Formal Adoption of Plan

Appendix G Region H Notification Letter