

CITY OF LIBERTY
LIBERTY COUNTY, TEXAS

WATER CONSERVATION PLAN

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I. INTRODUCTION

A. PLANNING AREA

The City of Liberty is a full-service Home-Ruled Charter Municipality with a Council-Manager form of Government with Departments that provide water, wastewater, street, electrical, parks, library, police, and fire service. Chartered in 1831, the City is located halfway between Houston and Beaumont along Highway 90 and is the county seat for Liberty County. According to the 2010 Census, the city has a population of approximately 8,397; however, enhanced economic activity occurs during the day due to the presence of State and County operations and the city's status as a regional trade and medical center. These social and governmental operations dictate that the City maintain adequate resources to supply water utility service that can sustain household, commercial, and industrial requirements.

The area covered by this Water Conservation Plan will include the entire City of Liberty service area as defined by its CCN (Certificate of Convenience and Necessity) as well as the Ames-Minglewood Water Supply Corporation, a neighboring entity that relies upon wholesale water from the City of Liberty as a contingency water supply. Additionally, any other areas that might receive wholesale water service in the future will become subject to provisions of the program as required by the TCEQ and/or the TWDB.

B. NEED FOR AND GOALS OF THE PROGRAM

The City received a loan through the Texas Water Development Board Clean Water State Revolving Fund Loan in 2007 for improvements to the wastewater treatment system. The most recent legislative requirement for Water Conservation and Drought Contingency Plans are outlined in 30TAC Chapter 288. A Water Conservation Plan is required for any entity seeking loans amounts above \$500,000 through the Texas Water Development Board (TWDB).

The two main requirements of the program are a water conservation plan and a drought contingency plan. The water conservation plan develops continuous use strategies to reduce withdrawal from a supply source through reducing the loss or waste of water and improving the efficiency of water used. The drought contingency plan's objective is to identify strategies for temporary supply and demand management in response to water supply shortages and emergencies.

In the Southeast Texas area, the need for a water conservation program is not as obvious as for Central or West Texas communities. The above - average amount of rainfall in Liberty County (46 inches \pm) reduces the need for outdoor watering. Ground and surface water have traditionally been available in most of East and Southeast Texas area in abundant quantities. However, the drought cycle has periodically threatened the supply of irrigation water for Southeast Texas, as demonstrated during the 2011 drought. In future decades, such drought cycles could potentially threaten municipal and industrial water supplies unless additional surface water or ground water supplies are developed. By taking steps to promote water conservation now, the need for drastic measures during times of drought can be lessened, as local residents will have become better educated concerning water conservation and the necessary control mechanisms will already be in place.

C. IMPLEMENTATION

Implementation and enforcement of the Water Conservation Plan and Drought Contingency Plan is through City Ordinance, included in Appendix A.

II. WATER CONSERVATION PLAN

A. UTILITY PROFILE

The evaluation of the success of a water conservation plan requires comparison of data between time periods. The data used for comparison must be consistent in derivation. A Utility Profile is required to be submitted as a part of the water conservation plan and provides a basis for the collection of data. Appendix B includes a copy of the completed profile.

B. FIVE- AND TEN-YEAR GOALS

The historic 5-year average gallon per capita usage (gpcd) reported in the 2018 Utility Profile is 162 gpcd. The guidelines for a Water Conservation Plan require an entity to set five and ten year non-enforceable measurable goals for water conservation. Setting of the goals should be based on identifying water conservation strategies that the community can successfully implement and assigning an anticipated water savings value to the strategy. The TWDB has developed *Report 362 Best Management Practices for Municipal Water Users*, also referred to as BMP GUIDE, to outline implementation of various water conservation strategies. Strategies that are practical for implementation in the City of Liberty include the following:

- Education and Information
- Water Conserving Rate Structures
- Universal Metering
- Leak Detection and Repair
- Annual System Audit

The Region H Water Plan includes discussion of water conservation management strategies and can be found online. The strategies being employed by the city are discussed in section C of this conservation plan. The 5 and 10 year goal is to reduce water loss by 3 gpcd and 6 gpcd, respectively, from the current 35 gpcd baseline. These values along with the 5 and 10 year goals for total and residential water consumption are available in Appendix C. The majority of the savings would be through practices associated with reduction of water loss.

C. WATER CONSERVATION STRATEGIES

Education & Information

The City will make water conservation flyers available to new customers when service applications are requested. Also, the city will print helpful water conservation tips on the water billing to encourage conservation. During summer months the City can also post “Conserve Water” signs at the main office and at facility sites located throughout the system as reminders.

Water Conserving Rate Structures

For purposes of rate making and establishing service regulations, Municipalities have the ability to self-govern and change rates via Ordinance adoption. A Home-Rule City can set water and sewer rates by official action of its City Council.

The City of Liberty may also be obligated by the terms of TWDB loan agreements (*for existing water facilities*) to meet certain requirements for its rate structures.

Existing Water Rates.

Water:

Residential Service

Min. Monthly Rate	2,000 Gallons	\$23.00
Excess Over	2,001 - 5,000 gals	\$3.75/1,000 gals
	Over 5,000 gals	\$3.95/1,000 gals

Commercial Service

Min. Monthly Rate	2,000 Gallons	\$29.00
Excess Over	2,001 - 5,000 gals	\$3.75/1,000 gals
	Over 5,000 gals	\$3.95/1,000 gals

Sewer:

Residential Service

Min. Monthly Rate	2,000 Gallons	\$24.00
Excess Over	2,001 - 5,000 gals	\$3.75/1,000 gals
	5,001 - 15,000 gals	\$3.75/1,000 gals
	Over 15,000 gals	No Charge

Commercial Service

Min. Monthly Rate	2,000 Gallons	\$31.50
Excess Over	2,001 - 5,000 gals	\$3.50/1,000 gals
	Over 5,000 gals	\$3.75/1,000 gals

The necessary increase(s) in water rates to pay for the water system improvements including the education of citizens about the need for water conservation will be by ordinance, designed to meet any requirements of the Texas Water Development Board.

Universal Metering

Master meters are placed in front of the City of Liberty's facilities for water pumped from each of its two (2) wells located within the City limits of Liberty. In addition, all private water usage (excluding firefighting and related drills) is metered. The City of Liberty uses master meters for some of its multiple residences, but the majority of water service is to single homes or commercial establishments by individual meters.

The City of Liberty meters all water used by its own facilities. In addition a report of consumption is documented annually for water line flushing, repair, and sterilization; and firefighting, related drills, and hydrant testing.

A third party testing facility is employed when the City of Liberty tests meters at the request of customers, or when any problems are noted by the utility, Billing Department, or Water Department. That information is used to adjust customer billing and/or warrant meter replacement.

Leak Detection and Repair

The City of Liberty discovers leaks in the distribution system by two methods:

- The Water Storage Facilities are equipped with an alarm system that notifies via phone calls that a decrease in pressure is appearing in the system.
- Leaking line results in water appearing on ground surface.

All breaks on main transmission lines and/or minor line repairs are performed by City of Liberty personnel using whatever adapters are necessary for similar or dissimilar materials. In the event that leakage results from slippage of fittings, the utility can replace existing fittings with mechanical joint fittings. Repairs are performed in accordance with Rules and Regulations for Public Water Systems, 30 TAC 290.46 (g), Texas Commission on Environmental Quality, including disinfection.

Much of the unaccounted-for water is used for Owner facilities, line flushing, and fire department usage (including hydrant testing and fire fighting).

Water and Wastewater Manager prepares monthly internal reports including total water produced and total sales. The City of Liberty submits monthly reports to the TCEQ covering total water pumpage, number of active water services, treated water quality, disinfectant usage, and water quality violations (if any).

Unauthorized water usage is not believed to represent a significant amount of water loss. The City of Liberty Utility Department and Water Department are kept posted of any new, removed, disconnected, or reconnected meters. They will generally notice any residential or commercial facility which appears occupied but is not listed as having an active meter. Although a property owner could construct a supplementary tap illegally, most local residents do not have the necessary skills and equipment. Few licensed plumbers would construct an illegal tap for fear of losing their licenses or local permits. Unauthorized use of fire hydrants is believed to be negligible or non-existent.

All Utility Department personnel under supervision of Public Works Director shall be made aware of the different types of leaks and how to detect and report them.

Annual System Audit

The City Manager will be responsible for managing the overall implementation of the water conservation strategies. The measure of the effectiveness of the program will be evaluated based on comparative data developed from the Water System Audit and updating of the Utility Profile. An annual review will be made with all members who have authority for the various water conservation strategies. The review will include evaluation of the effectiveness of the existing strategy and identify new strategies that can be implemented.

D. SCHEDULE

The City has already implemented the practices and will continue to improve on the tracking of information for the system audit and implement these practices based on the obtained information.

Annual review of water conservation plan policies and new strategies will be completed before November 30 every year. The annual report will be completed by March 31 and submitted to TWDB by May 1.

E. TRACKING IMPLEMENTATION AND EFFECTIVENESS

The ability to meet the goals of the plan requires periodic review of the status of the implementation and evaluation of effectiveness by comparison of the measures for the established goal. 30TAC Chapter 288 requires that all Water Conservation Plans be reviewed and updated beginning May 1, 2009 and every five years thereafter to coincide with regional water planning group cycles. Items to be addressed in the review should include the following:

- changes in water supply and/or demand which require more stringent implementation of the program
- changes in state regulations
- coordination with regional water planning effort.

In addition, the TWDB requires entities that receive financial assistance of more than \$500,000 must report annually for at least the first 3 years on the progress of implementation of the water conservation plan. This water conservation plan, and subsequent amendments, is required to be filed with the Regional Water Planning Group H. Notice will be filed as included in Appendix A.

The City will continue to perform annual reviews of the water plan. The format for reporting the result of the review is provided by TWDB Form No. 1966.

F. IMPLEMENTATION AND ENFORCEMENT

The implementation of the plan is effective by adoption of an ordinance. A copy of the effective ordinance is included in Appendix A. The authority for implementation and enforcement of the water conservation measures will vary by the type of strategy implemented.

The City of Liberty currently has contracts with other entities for supply or purchase of water and for wastewater service. The City of Liberty has contracted to supply wastewater treatment service to the City of Hardin, Texas and City of Ames, Texas. The City of Liberty also has a contract to supply water service to the Ames-Minglewood Water Supply Corporation at certain intervals. Any future contracts to supply water or sewer service to outside entities will contain provisions to make water conservation practices applicable to those entities.

The City of Liberty originally adopted a drought contingency plan designed to meet TCEQ requirements in August 2000. Any future contracts to provide water and/or wastewater service to wholesale entities (such as water districts, water supply corporations, or cities) will contain provisions making those entities subject to

provisions of the City of Liberty's Drought Contingency Plan. (*This will not apply to contracts for emergency service only.*)

In addition, this Water Conservation Plan and any amendments thereto is to be submitted to the Regional Water Planning Group. A copy of the correspondence with the Regional Water Planning Group is provided in Appendix A.

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 City of Liberty hereby adopts the following regulations and restrictions on the delivery and consumption of water through ordinance passed by the City Council (Appendix A). 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 I of this Plan.

B. PUBLIC INVOLVEMENT

City of Liberty shall actively inform the public and wholesale water customers and affirmatively provide opportunity for input from the public and from wholesale water customers regarding the Plan. Such provision includes, but is not limited to, notifying the public and wholesale water customers of the City's public meeting regarding the proposed Plan, notice of which will be given pursuant to the Open Meetings Act.

C. PUBLIC EDUCATION

The City of Liberty 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:

1. Publications of articles in a newspaper or newsletter of general circulation in the service area, providing information regarding the Plan and/or information regarding water conservation techniques; and
2. Direct distributions to all residents and other users of water within the City, and all wholesale water customers of the City, if any, ("Users") explaining the Plan; and
3. Direct distributions to Users of educational and informational material regarding the Plan; and
4. Additional educational activities consisting of (i) conducting an informational school program in a school attended by students within the City's service area, or (ii) conducting an educational program for users at a public place within or accessible to residents of the City, or (iii) conducting or engaging in such other informational or educational activity designed to further the Plan as may be consistent with the purposes and policies of this Plan, or (iv) any combination of the foregoing.

D. COORDINATION WITH REGIONAL WATER PLANNING GROUPS

The service area of the City of Liberty is located within the Region H Water Planning Group and City of Liberty has provided a copy of this Plan to the Regional Water Planning Group.

E. AUTHORIZATION

The City's designee authorized and directed to implement the applicable provisions of this Plan is as named in the ordinance approving the plan. The City's designee has the

authority to determine when implementation is necessary to protect public health, safety, and welfare. The City's designee shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

F. APPLICATION

The provisions of this Plan shall apply to all persons and customers utilizing water provided by the City of Liberty. The terms "person" and "customer" as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

G. DEFINITIONS

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

1. Aesthetic water use: water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.
2. Commercial and institutional water use: water use that is integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.
3. 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 so that a supply is conserved and made available for future or alternative uses.
4. Construction water use: water used in the process of building or erecting structures, streets, ditches, etc. or water used to prepare a surface for building and/or rehabilitation. Construction water use may occur through a fixed tap or through a mobile unit that fills at a fixed tap.
5. Customer: any person, company, or organization using water supplied by City of Liberty.
6. 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.
7. Even number address: street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses.
8. Industrial water use: the use of water in processes designed to convert materials of lower value into forms having greater usability and value.
9. Landscape irrigation use: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.
10. Non-essential water use: water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:
 - a) irrigation of landscape areas, including parks, athletic fields, and golf courses, except 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 or scenic 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 directing the repair of such leak(s); and
 - i) use of water from hydrants for construction purposes or any other purposes other than fire fighting.
11. Odd numbered address: street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

H. CRITERIA FOR INITIATION AND TERMINATION OF DROUGHT RESPONSE STAGES

The City's designee shall monitor water supply and/or demand conditions and shall determine when conditions warrant initiation or termination of each stage of the Plan, that is, when the specified "triggers" are reached. The trigger conditions are for responding to, but not limited to, the following situations: (a) water production or distribution system limitations; (b) supply source contamination; or (c) water system outage due to the failure or damage of major water system components (i.e. pumps, tanks, etc.). Additionally, the appropriate stage will be triggered any time the Governor declares the county to be a disaster area based on drought conditions, as required by Texas HB 3604.

Stage 1 Triggers -- MILD Water Shortage Conditions

Requirements for initiation

Stage 1 may be initiated if one or more of the following occur:

1. When demand on the City's water supply facilities reaches or exceeds eighty percent (80%) of the in-service production capacity of such facilities for 3 consecutive days, as determined by the City's operator.
2. Level in storage tanks are consistently below three-fourths full for 5 consecutive days.

Requirements for termination

Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 3 consecutive days.

Stage 2 Triggers -- MODERATE Water Shortage Conditions

Requirements for initiation

Stage 2 may be initiated when one or more of the following occur:

1. When demand on the City's water supply facilities reaches or exceeds eighty-five percent (85%) of the in-service production capacity of such facilities for 3 consecutive days, as determined by the City's operator.
2. Level in storage tanks is consistently below one-half full for 3 consecutive days.

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 3 consecutive days. Upon termination of Stage 2, Stage 1 becomes operative.

Stage 3 Triggers - SEVERE Water Shortage Conditions

Requirements for initiation

Stage 3 may be initiated when one or more of the following occur:

1. When demand on the City's water supply facilities exceeds ninety percent (90%) of the in-service production capacity of such facilities for 3 consecutive days, as determined by the City's operator.
2. Level in storage tanks is one-quarter full.

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 3 consecutive days. Upon termination of Stage 3, Stage 2 becomes operative.

Stage 4 Triggers -- CRITICAL Water Shortage Conditions

Requirements for initiation

Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 4 of this Plan when one or more of the following occur:

1. When demand on the City's water supply facilities reaches or exceeds ninety-five percent (95%) of the in-service production capacity of such facilities for 3 consecutive days, as determined by the City's operator.

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 3 consecutive days. Upon termination of Stage 4, Stage 3 becomes operative.

Stage 5 Triggers -- EMERGENCY Water Shortage Conditions

Requirements for initiation

Customers shall be required to comply with the requirements and restrictions for Stage 5 of this Plan when the City's designee determines that a water supply emergency exists based on:

1. Major disruption in the City's treatment and/or distribution system causing an unprecedented loss of capability to provide water service; or
2. Natural or man-made contamination of the water supply source.

Requirements for termination

Stage 5 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased.

I. DROUGHT RESPONSE STAGES

The City's designee shall declare stage conditions, as set forth in Section I of this Plan, and implement the appropriate response. The City's designee, on all stages, shall implement the following notification procedures:

Notification of the Public: The City's designee shall notify the public by means of any combination of the following:

1. dissemination of press releases to the local news media,
2. direct mail to each customer,
3. public service announcements,
4. signs posted in public places, and/or
5. posting of signs at the entrances to the City
6. telephone calls.

Notices issued shall contain (i) the date the Drought Response Measures will begin, (ii) the date the Drought Response Measures will terminate, if known, (iii) a list of Drought Response Measures to be implemented, and (iv) an explanation of penalties for violations of such Drought Response Measures. Notices shall also be issued when actions for each stage has been terminated.

Additional Notification: The City's designee shall notify directly, or cause to be notified directly, the following individuals and entities:

1. City Manager, Mayor and City Council members (All Conditions)
2. City Fire Chief (Severe, Critical and/or Emergency)
3. City Attorney (Moderate, Severe, Critical and/or Emergency)
4. County Emergency Management Coordinator (Critical and/or Emergency)
5. County Commissioner (Critical and/or Emergency)
6. Critical water users (Critical and/or Emergency)
7. Major water users (Critical and/or Emergency)
8. TCEQ (required for: Moderate, Severe, Critical, Emergency)

Stage 1 Response -- MILD Water Shortage Conditions

Target: Achieve a voluntary five percent (5%) reduction in total water use.

Best Management Practices for Supply Management:

The following measures will be implemented directly by City of Liberty to manage limited water supplies and/or reduce water demand: reduce or discontinue flushing of water mains, careful monitoring of system to prevent tank overflows and/or quickly repair line breaks/leaks.

Voluntary Water Use Restrictions for Reducing Demand:

1. Water customers are requested to voluntarily limit the irrigation of landscaped areas to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and to irrigate landscapes only between the hours of midnight and 10:00 a.m. and 8:00 p.m. to midnight on designated watering days.
2. All operations of the City of Liberty shall adhere to water use restrictions prescribed for Stage 2 of the Plan.
3. Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.
4. Establish an information center to answer inquiries and to discuss water shortage and its potential impact on water supply.

Stage 2 Response -- MODERATE Water Shortage Conditions

Target: Achieve a ten percent (10%) reduction in total water use.

Best Management Practices for Supply Management:

The following measures will be implemented directly by City of Liberty to manage limited water supplies and/or reduce water demand: reduce or discontinue flushing of water mains, careful monitoring of system to prevent tank overflows and quickly repair line breaks/leaks.

Water Use Restrictions for Demand Reduction:

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

1. Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and irrigation of landscaped areas is further limited to the hours of 12:00 midnight until 10:00 a.m. and between 8:00 p.m. and 12:00 midnight on designated watering days. However, irrigation of landscaped areas is permitted at anytime if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
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 12:00 midnight and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight. 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 rises. 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 jacuzzi-type pools is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight.
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, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the City of Liberty.
6. Use of water for the irrigation of golf course greens, tees, and fairways is prohibited except on designated watering days between the hours 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight. However, if the golf course utilizes a water source other than that provided by the City of Liberty, the facility shall not be subject to these regulations.
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) wash down of any 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;
 - d) flushing gutters or permitting water to run or accumulate in 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).
9. The City Manager may direct any or all commercial, industrial, and recreational users to suspend use of City water for purposes other than domestic use.

Stage 3 Response -- SEVERE Water Shortage Conditions

Target: Achieve a twelve and one half percent (12.5%) reduction in total water use.

Best Management Practices for Supply Management:

The following measures will be implemented directly by City of Liberty to manage limited water supplies and/or reduce water demand: reduce or discontinue flushing of water mains, careful monitoring of system to prevent tank overflows and/or to quickly repair line breaks.

Water Use Restrictions for Demand Reduction:

All requirements of Stage 2 shall remain in effect during Stage 3 except:

1. Irrigation of landscaped areas shall be limited to designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, drip irrigation, or permanently installed automatic sprinkler system only. The use of hose-end sprinklers is prohibited at all times.
2. The watering of golf course tees, greens, and fairways is prohibited unless the golf course utilizes a water source other than that provided by City of Liberty.
3. The City Manager may direct any or all commercial, industrial, and recreational users to suspend use of City water for purposes other than domestic use.

Stage 4 Response -- CRITICAL Water Shortage Conditions

Target: Achieve a fifteen percent (15%) reduction in total water use.

Best Management Practices for Supply Management:

The following measures will be implemented directly by City of Liberty to manage limited water supplies and/or reduce water demand: reduce or discontinue flushing of water mains, careful monitoring of system to prevent tank overflows and quickly repair line breaks/leaks.

Water Use Restrictions for Reducing Demand: All requirements of Stage 2 and 3 shall remain in effect during Stage 4 except:

1. Irrigation of landscaped areas shall be limited to designated watering days between the hours of 6:00 a.m. and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, or drip irrigation only. The use of hose-end sprinklers or permanently installed automatic sprinkler systems are prohibited at all times.

2. 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 6:00 p.m. and 10 p.m.
3. The filling, refilling, or adding of water to swimming pools, wading pools, and jacuzzi-type pools is prohibited.
4. 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 are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.
5. The City Manager may direct any or all commercial, industrial, and recreational users to suspend use of City water for purposes other than domestic use.

Stage 5 Response -- EMERGENCY Water Shortage Conditions

Target: Achieve a minimum fifteen percent (15%) reduction in total water use.

Best Management Practices for Supply Management:

The following measures will be implemented directly by City of Liberty to manage limited water supplies and/or reduce water demand: reduce or discontinue flushing of water mains, careful monitoring of system to prevent tank overflows and to quickly repair line breaks/leaks, and notify the public and enforcement agencies of the immediate need for water use reduction.

Water Use Restrictions for Reducing Demand. All requirements of Stage 2, 3, and 4 shall remain in effect during Stage 5 except:

1. Irrigation of landscaped areas is absolutely prohibited.
2. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle is absolutely prohibited.
3. The City Manager may direct any or all commercial, industrial, and recreational users to suspend use of City water for purposes other than domestic use.

J. ENFORCEMENT

1. No person shall knowingly or intentionally allow the use of water from the City of Liberty 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 drought response stage in effect at the time pursuant to action taken by City's designee, in accordance with provisions of this Plan.
2. Any person who violates this plan is guilty of a misdemeanor and, upon conviction shall be punished by a fine of not less than \$50.00 dollars and not more than \$200.00 dollars.
3. Each day that one or more of the provisions in this Plan is violated shall constitute a separate offense. If a person is convicted of three or more distinct violations of this Plan, the City's designee shall, upon due notice to the customer, 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, and any other costs incurred by the City

of Liberty in discontinuing service. In addition, suitable assurance must be given to the City's designee that the same action shall not be repeated while the Plan is in effect. Compliance with this plan may also be sought through injunctive relief in the City court.

4. Any person, including a person classified as a water customer of the City of Liberty, 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, but any such person shall have the right to show that he/she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children and proof that a violation, committed by a child, occurred on property within the parents' control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she had previously directed the child not to use the water as it was used in violation of this Plan and that the parent could not have reasonably known of the violation.
5. Any employee of the City of Liberty and/or police officer may issue a citation to a person he/she reasonably believes to be in violation of this Ordinance. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if known, the offense charged, and shall direct him/her to appear in Municipal Court on the date shown on the citation for which the date shall not be less than 3 days nor more than 5 days from the date the citation was issued. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of a violator, or to a person over 14 years of age who is a member of the violator's immediate family or is a resident of the violator's residence. The alleged violator shall appear in Municipal Court to enter a plea of guilty or not guilty for the violation of this Plan. If the alleged violator fails to appear in Municipal Court, a warrant for his/her arrest may be issued. A summons to appear may be issued in lieu of an arrest warrant. These cases shall be expedited and given preferential setting in Municipal Court before all other cases.
6. The City also may, at its option, install a flow restriction device in the service line of any user for violation of this ordinance. The City may charge the user for the cost of the flow restriction device, including installation, and may disconnect service for failure to pay for this item.
7. To further enhance the effectiveness of water conservation The City Council may, after declaring a water usage emergency, impose surcharges not to exceed the following amounts on all water usage (per two month period) by any users:

0 - 6,000 gallons	\$0.75 per 1000 gallons
6,000 - 10,000 gallons	\$1.00 per 1000 gallons
10,000 - 20,000 gallons	\$1.50 per 1000 gallons
Over 20,000 gallons	\$1.75 per 1000 gallons

No surcharge for any bracket may be less than the surcharge for the next lower bracket. These surcharges shall become effective for each user as soon as the City can read the meter serving that user and notify that user.

K. VARIANCES

1. The City's 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 condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:
2. 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.
3. Alternative methods can be implemented which will achieve the same level of reduction in water use.
4. Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the City of Liberty within 5 days after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the City's designee, and shall include the following:
 - a) Name and address of the petitioner(s).
 - b) Purpose of water use.
 - c) Specific provision(s) of the Plan from which the petitioner is requesting relief.
 - d) 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 Drought Contingency Plan.
 - e) Description of the relief requested.
 - f) Period of time for which the variance is sought.
 - g) 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.
 - h) Other pertinent information.

Persons who anticipate, in advance, the need for a variance may apply for a standing variance by filing a petition with the City. If a standing variance is granted, the City reserves the right to override or modify such variance as conditions arise.

5. Variances granted by the City of Liberty shall be subject to the following conditions, unless waived or modified by the City's designee:
 - a. Variances granted shall include a timetable for compliance.
 - b. Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.
 - c. No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

APPENDIX A

City Ordinance (No.) ####
Regional Water Planning Group Notification

APPENDIX B

UTILITY PROFILE

UTILITY PROFILE FOR RETAIL WATER SUPPLIER

Fill out this form as completely as possible.
If a field does not apply to your entity, leave it blank.

CONTACT INFORMATION

Name of Utility: _____

Public Water Supply Identification Number (PWS ID): _____

Certificate of Convenience and Necessity (CCN) Number: _____

Surface Water Right ID Number: _____

Wastewater ID Number: _____

Completed By: _____ Title: _____

Address: _____ City: _____ Zip Code: _____

Email: _____ Telephone Number: _____

Date: _____

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

Groundwater Conservation District: _____ [Map](#)

Check all that apply:

Received financial assistance of \$500,000 or more from TWDB

Have 3,300 or more retail connections

Have a surface water right with TCEQ

Section I: Utility Data

A. Population and Service Area Data

1. Current service area size in square miles: _____
(Attach or email a copy of the service area map.)
2. Provide historical service area population for the previous five years, starting with the most current year.

Year	Historical Population Served By Retail Water Service	Historical Population Served By Wholesale Water Service	Historical Population Served By Wastewater Service

3. Provide the projected service area population for the following decades.

Year	Projected Population Served By Retail Water Service	Projected Population Served By Wholesale Water Service	Projected Population Served By Wastewater Service
2020			
2030			
2040			
2050			
2060			

4. Describe the source(s)/method(s) for estimating current and projected populations.

B. System Input

Provide system input data for the previous five years.

Total System Input = Self-supplied + Imported – Exported

Year	Self-supplied Water in Gallons	Purchased/Imported Water in Gallons	Exported Water in Gallons	Total System Input	Total GPCD
Historic 5-year Average					

C. Water Supply System (Attach description of water system)

1. Designed daily capacity of system _____ gallons per day.
2. Storage Capacity:
Elevated _____ gallons
Ground _____ gallons
3. List all current water supply sources in gallons.

Water Supply Source	Source Type*	Total Gallons

*Select one of the following source types: *Surface water, Groundwater, or Contract*

4. If surface water is a source type, do you recycle backwash to the head of the plant?
Yes _____ estimated gallons per day
No

D. Projected Demands

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

Year	Population	Water Demands (gallons)

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

E. High Volume Customers

1. List the annual water use, in gallons, for the five highest volume **RETAIL customers**. Select one of the following water use categories to describe the customer; choose Residential, Industrial, Commercial, Institutional, or Agricultural.

Retail Customer	Water Use Category*	Annual Water Use	Treated or Raw

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use.](#)

2. If applicable, list the annual water use for the five highest volume **WHOLESALE customers**. Select one of the following water use categories to describe the customer; choose Municipal, Industrial, Commercial, Institutional, or Agricultural.

Wholesale Customer	Water Use Category*	Annual Water Use	Treated or Raw

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use.](#)

F. Utility Data Comment Section

Provide additional comments about utility data below.

Section II: System Data

A. Retail Connections

1. List the active retail connections by major water use category.

Water Use Category*	Active Retail Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Residential – Single Family				
Residential – Multi-family (units)				
Industrial				
Commercial				
Institutional				
Agricultural				
TOTAL				

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use.](#)

2. List the net number of new retail connections by water use category for the previous five years.

Water Use Category*	Net Number of New Retail Connections				
Residential – Single Family					
Residential – Multi-family (units)					
Industrial					
Commercial					
Institutional					
Agricultural					
TOTAL					

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use.](#)

B. Accounting Data

For the previous five years, enter the number of gallons of RETAIL water provided in each major water use category.

Water Use Category*	Total Gallons of Retail Water				
Residential - Single Family					
Residential – Multi-family					
Industrial					
Commercial					
Institutional					
Agricultural					
TOTAL					

*For definitions on recommended customer categories for classifying customer water use, refer to the online [Guidance and Methodology for Reporting on Water Conservation and Water Use](#).

C. Residential Water Use

For the previous five years, enter the residential GPCD for single family and multi-family units.

Water Use Category*	Residential GPCD				
Residential - Single Family					
Residential – Multi-family					

D. Annual and Seasonal Water Use

- For the previous five years, enter the gallons of treated water provided to RETAIL customers.

Month	Total Gallons of Treated Retail Water				
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL					

2. For the previous five years, enter the gallons of raw water provided to RETAIL customers.

Month	Total Gallons of Raw Retail Water				
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL					

3. Summary of seasonal and annual water use.

Water Use	Seasonal and Annual Water Use					Average in Gallons
Summer Retail (Treated + Raw)						_____
						5yr Average
TOTAL Retail (Treated + Raw)						_____
						5yr Average

E. Water Loss

Provide Water Loss data for the previous five years.

Water Loss GPCD = [Total Water Loss in Gallons ÷ Permanent Population Served] ÷ 365

Water Loss Percentage = [Total Water Loss ÷ Total System Input] x 100

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
5-year average			

F. Peak Water Use

Provide the Average Daily Water Use and Peak Day Water Use for the previous five years.

Year	Average Daily Use (gal)	Peak Day Use (gal)	Ratio (peak/avg)

G. Summary of Historic Water Use

Water Use Category	Historic 5-year Average	Percent of Connections	Percent of Water Use
Residential SF			
Residential MF			
Industrial			
Commercial			
Institutional			
Agricultural			

H. System Data Comment Section

Provide additional comments about system data below.

Section III: Wastewater System Data

If you do not provide wastewater system services then you have completed the Utility Profile. Save and Print this form to submit with your Plan. Continue with the [Water Conservation Plan Checklist](#) to complete your Water Conservation Plan.

A. Wastewater System Data (Attach a description of your wastewater system.)

- Design capacity of wastewater treatment plant(s): _____
gallons per day.
- List the active wastewater connections by major water use category.

Water Use Category*	Active Wastewater Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal				
Industrial				
Commercial				
Institutional				
Agricultural				
TOTAL				

- What percent of water is serviced by the wastewater system? ____%
- For the previous five years, enter the number of gallons of wastewater that was treated by the utility.

Month	Total Gallons of Treated Wastewater				
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL					

4. Can treated wastewater be substituted for potable water?
 Yes No

B. Reuse Data

1. Provide data on the types of recycling and reuse activities implemented during the current reporting period.

Type of Reuse	Total Annual Volume (in gallons)
On-site irrigation	
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Discharge to surface water	
Evaporation pond	
Other	
TOTAL	

C. Wastewater System Data Comment

Provide additional comments about wastewater system data below.

You have completed the Utility Profile. Save and Print this form to submit with your Plan. Continue with the [Water Conservation Plan Checklist](#) to complete your Water Conservation Plan.

APPENDIX C

Water Conservation Plan 5- and 10-year goals (TWDB-1964)

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

Facility Name: _____

Water Conservation Plan Year: _____

	Historic 5yr Average	Baseline	5-yr Goal for year _____	10-yr Goal for year _____
Total GPCD ¹				
Residential GPCD ²				
Water Loss (GPCD) ³				
Water Loss (Percentage) ⁴	%	%	%	%

1. Total GPCD = (Total Gallons in System ÷ Permanent Population) ÷ 365

2. Residential GPCD = (Gallons Used for Residential Use ÷ Residential Population) ÷ 365

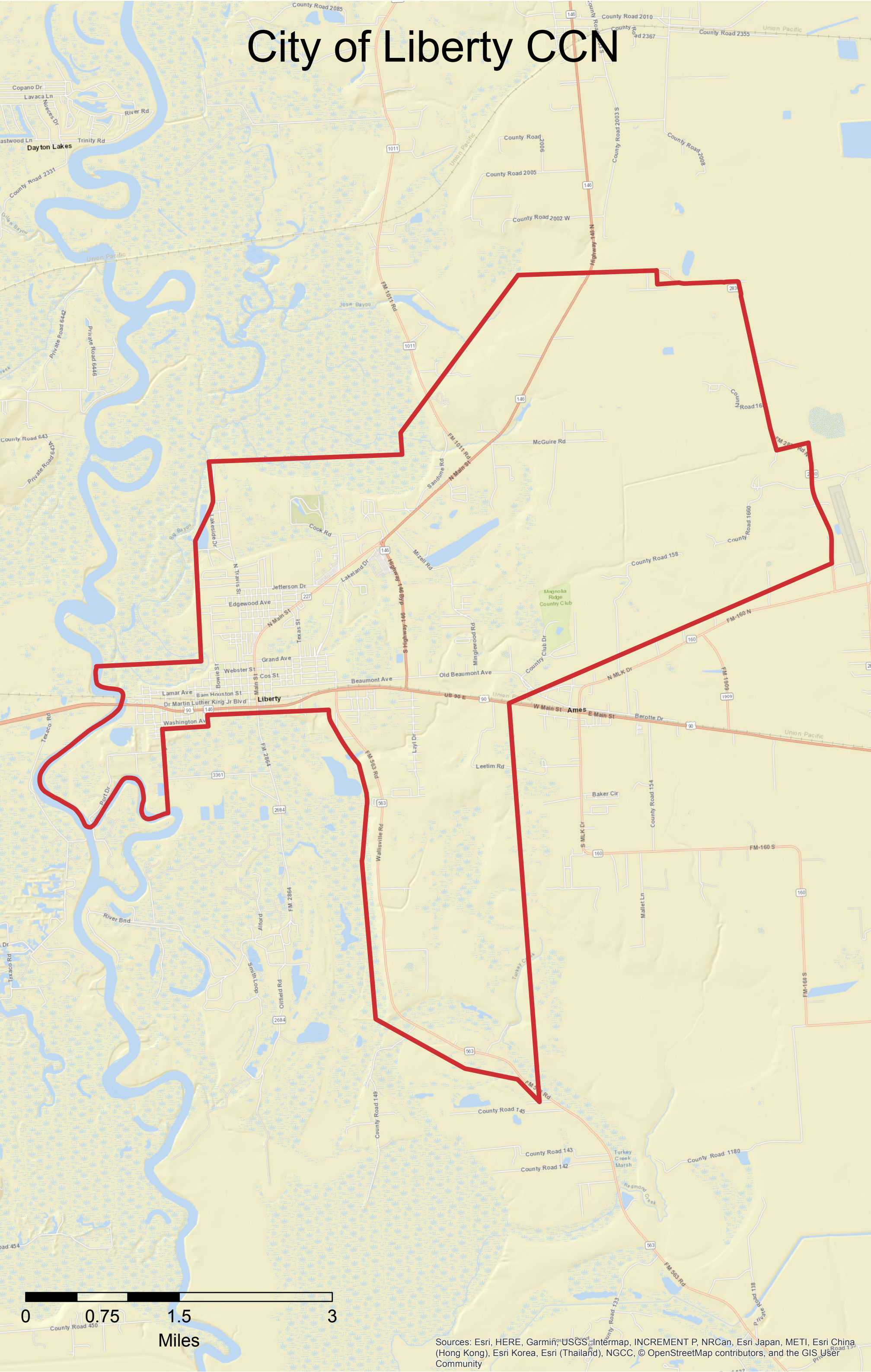
3. Water Loss GPCD = (Total Water Loss ÷ Permanent Population) ÷ 365

4. Water Loss Percentage = (Total Water Loss ÷ Total Gallons in System) x 100; or (Water Loss GPCD ÷ Total GPCD) x 100

EXHIBIT 1

CCN BOUNDARY

City of Liberty CCA



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community