



**Monday, April 15, 2024
City Council Meeting**

**Council Chambers
3815 Sachse Road, Building B
6:30 PM**

**Sachse City Council Meetings are streamed live online and available on-demand
(<https://sachsetx.swagit.com/live>).**

The City of Sachse reserves the right to reconvene, recess, or realign the meeting, called Executive Session, or order of business at any time prior to adjournment.

As authorized by Section 551.071(2) of the Texas Government Code, these meetings may be convened into closed Executive Session at any time during the meeting for the purpose of seeking confidential legal advice from the City Attorney on any agenda item listed herein.

A. Meeting Opening

1. Call to Order: The City Council of the City of Sachse will hold a Regular Meeting on Monday, April 15, at 6:30 p.m. to consider the following items of business:
2. Invocation and Pledges of Allegiance.

B. Recognition

1. Present a proclamation to recognize Animal Care and Control Appreciation Week.
2. Present a proclamation recognizing National Public Safety Telecommunicators Week.
3. Recognize the Community Emergency Response Team (CERT) and Radio Amateur Civil Emergency Service (RACES) volunteer organizations for their dedication to the City of Sachse.
4. Recognize American Heart Association Heartsaver Heroes for providing life-saving actions during a sudden cardiac arrest event.

C. Public Comment

1. The public is invited to address Council regarding any topic not already on the regular agenda. Comments regarding the Consent Agenda may be addressed during Public Comment. The time limit is 3 minutes per speaker. A Public Comment Card should be presented to the City Secretary prior to the meeting. According to the Texas Open Meetings Act, Council is prohibited from discussing any item not posted on the agenda but will take comments under advisement.

D. Council/Staff Reports and Updates

1. Mayor and City Council announcements regarding special events, current activities, and local

achievements.

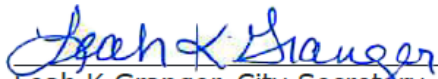
E. Consent Agenda - All items listed on the consent agenda will be considered by the City Council and will be enacted on by one motion. There will be no separate discussion of these items unless a Councilmember so requests.

1. Approve the April 1, 2024, regular meeting minutes.

F. Regular Agenda Items

1. Consider and approve an ordinance adopting the 2024 Water Conservation and Water Resources and Emergency Management Plan.
2. Adjournment.

I, the undersigned authority, do hereby certify that this notice of a public meeting was posted in accordance with the regulations of the Texas Open Meetings Act and was posted on the bulletin board, an accessible location at Sachse City Hall.


Leah K Granger, City Secretary

Posted: 04/12/2024 by 5 pm Removed: _____

Accommodation requests for persons with disabilities should be made at least 48 hours prior to the meeting by contacting Logan Thatcher, ADA Coordinator, via phone at 972-495-1212, via email at lthatcher@cityofsachse.com, or by appointment at 3815 Sachse Road, Building B, Sachse, Texas 75048.

B. Recognition

Subject:	1. Present a proclamation to recognize Animal Care and Control Appreciation Week.
Meeting	April 15, 2024 - City Council Meeting
Access	Public
Type	Recognition
Fiscal Impact	None
Recommended Action	Present a proclamation recognizing Animal Care and Control Appreciation Week.
Goals	Provide excellent government services to Sachse citizens. Meet the public safety needs of a growing citizen; student; and business population.

BACKGROUND

The second full week of April is nationally recognized as Animal Care and Control Appreciation Week and is a week when communities are encouraged to learn about what the job entails and to be grateful for those who do it. Sachse Animal Control Officers regularly risk their well-being to protect the welfare of animals and the community.

Sachse Animal Services Supervisor Terri O'Neal will accept the proclamation.

POLICY CONSIDERATIONS

There are no policy considerations affiliated with this item.

RECOMMENDATION

Present a proclamation recognizing Animal Care and Control Appreciation Week.

File Attachments

1. Proclamation Animal Control Appreciation Week 2024

Proclamation

WHEREAS, Animal Care and Control Officers are hard-working professionals who protect the welfare of animals and pets that are rescued from injury, disease, abuse, and starvation; and

WHEREAS, these officers provide the essential community functions of enforcing animal control laws, protecting the public from diseases, and educating the public on the proper care of pets; and

WHEREAS, Animal Control Officers provide public safety and deserve recognition for their bravery, compassion, and unwavering commitment to the welfare of both animals and residents; and

WHEREAS, Sachse Animal Control Officers regularly go above and beyond their duties risking their wellbeing and devoting personal time and resources to serve countless pets and animals of Sachse and the surrounding areas;

NOW, THEREFORE, I, Jeff Bickerstaff, Mayor of the City of Sachse, do hereby proclaim April 14 - 20 as

Animal Care and Control Appreciation Week

in Sachse and encourage the everyone to celebrate the hardworking men and women who protect and serve our community's animals.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the City of Sachse, Texas to be affixed on this 15th day of April, 2024.

Gold
Seal



Jeff Bickerstaff, Mayor

B. Recognition

Subject:	2. Present a proclamation recognizing National Public Safety Telecommunicators Week.
Meeting	April 15, 2024 - City Council Meeting
Access	Public
Type	Recognition
Fiscal Impact	None
Recommended Action	Present a proclamation recognizing National Public Safety Telecommunicators Week.
Goals	Provide excellent government services to Sachse citizens. Meet the public safety needs of a growing citizen; student; and business population.

BACKGROUND

Emergencies can occur any time and a prompt response is critical to the protection of life and preservation of property. Public Safety Telecommunicators serve as the vital link for the city's first responders to ensure their safety and substantially contribute to the protection of the public. National Public Safety Telecommunicators Week is April 14 - 20.

Dispatch Supervisor Sharlene Thompson will be in attendance to be recognized.

POLICY CONSIDERATIONS

There are no policy considerations affiliated with this item.

RECOMMENDATION

Present a proclamation recognizing National Public Safety Telecommunicators Week.

File Attachments

1. Proclamation_Public Safety Telecommunicators Week_2024

§ *Proclamation*

WHEREAS, emergencies can occur at any time that require police, fire, or EMS services, and the prompt response of police officers, firefighters, and paramedics is critical to the protection of life and preservation of property; and

WHEREAS, the safety of our first responders is dependent upon the quality and accuracy of information obtained from citizens who telephone Sachse Dispatch, and Public Safety Telecommunicators are the first and most critical contact the public has with emergency services; and

WHEREAS, serving as the single, vital link for our officers, firefighters, and paramedics by monitoring their activities by radio, providing them information, and ensuring their safety, Public Safety Telecommunicators of the City of Sachse have contributed substantially to the apprehension of criminals, suppression of fires, and treatment of patients; and

WHEREAS, each dispatcher has exhibited compassion, understanding, and professionalism during the performance of his or her job in the past year;

NOW, THEREFORE, I, Jeff Bickerstaff, Mayor of the City of Sachse, do hereby proclaim the week of April 14 – 20 as

National Public Safety Telecommunicators Week

in Sachse in honor of the men and women whose diligence and professionalism keep our city and the public safe.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the City of Sachse, Texas to be affixed on this 15th day of April, 2024.

Gold
Seal



Jeff Bickerstaff, Mayor

B. Recognition

Subject:	3. Recognize the Community Emergency Response Team (CERT) and Radio Amateur Civil Emergency Service (RACES) volunteer organizations for their dedication to the City of Sachse.
Meeting	April 15, 2024 - City Council Meeting
Access	Public
Type	Recognition
Fiscal Impact	None
Recommended Action	Recognize CERT and RACES for their dedication to the city of Sachse.
Goals	Meet the public safety needs of a growing citizen; student; and business population.

BACKGROUND

The CERT and RACES volunteer organizations consistently assist the City in a variety of ways and do so without seeking recognition. They live to serve, and their service is often critical to the success of our mission, programs, scene management, and more. They respond to structure fires, City events, disasters, and much more. These organizations are always ready to assist when needed.

POLICY CONSIDERATIONS

There are no policy considerations affiliated with this item.

RECOMMENDATION

Recognize CERT and RACES for their dedication to the city of Sachse.

File Attachments None

B. Recognition

Subject:	4. Recognize American Heart Association Heartsaver Heroes for providing life-saving actions during a sudden cardiac arrest event.
Meeting	April 15, 2024 - City Council Meeting
Access	Public
Type	Recognition
Fiscal Impact	None
Recommended Action	Recognize American Heart Association Heartsaver Heroes for providing life-saving actions during a sudden cardiac arrest event.
Goals	Meet the public safety needs of a growing citizen; student; and business population.

BACKGROUND

On October 1, 2023, James Wiggs experienced a sudden cardiac arrest event. Dispatcher Debi Ortiz answered the 911 call, utilized Emergency Medical Dispatch protocols, and dispatched both police and fire units to the cardiac arrest incident. She provided pre-arrival CPR instructions to the patient's wife. Officer Peter Marvin arrived prior to the Sachse Fire-Rescue (SFR), took over CPR, and regained a pulse on the patient. SFR personnel arrived and took over medical care utilizing Advanced Life Support measures. The patient was experiencing a massive ST Elevation Myocardial Infarction (also known as STEMI) and met the criteria for extracorporeal membrane oxygenation (ECMO). The decision was made to transport to Medical City Plano which has the only onsite 24/7 ECMO team in the area. Prior to departing the scene, the patient went back into cardiac arrest. SFR crew members performed High Performance CPR and defibrillation was provided to the patient. The patient had a return of spontaneous circulation again. Treatment continued en route to the hospital and the patient was taken directly to the cardiac cath lab for treatment.

The patient made a full recovery and is back home with his family due to the efforts of these individuals and the systems in place, such as Emergency Medical Dispatch, Resuscitation Quality Improvement (RQI), high performance CPR, and the very advanced level of personnel and care we provide for the residents and visitors of Sachse.

Names for recognition: Officer Peter Marvin; Dispatcher Debora Ortiz; Lt. Ken Messick; Lt. Brad Hood; Driver/Engineers Cory Cave, Vincent Ojeda, and Jody Krizan; Firefighter/Paramedic Stephen Dacus, Firefighter/Paramedic Kylan Strauss.

POLICY CONSIDERATIONS

There are no policy considerations affiliated with this item.

RECOMMENDATION

Recognize American Heart Association Heartsaver Heroes for providing life-saving actions during a sudden cardiac arrest event.

File Attachments None

E. Consent Agenda - All items listed on the consent agenda will be considered by the City Council and will be enacted on by one motion. There will be no separate discussion of these items unless a Councilmember so requests.

Subject: 1. Approve the April 1, 2024, regular meeting minutes.

Meeting April 15, 2024 - City Council Meeting

Access Public

Type Action (Consent), Minutes

Fiscal Impact None

Recommended Action Approve the April 1, 2024, regular meeting minutes.

Goals

BACKGROUND

Minutes from the April 1, 2024, Council regular meeting.

POLICY CONSIDERATIONS

There are no policy considerations affiliated with this item.

RECOMMENDATION

Approve the April 1, 2024, regular meeting minutes.

File Attachments

1. CityCouncil_Regular_Minutes_04.01.2024

**CITY COUNCIL OF THE CITY OF SACHSE
MEETING MINUTES
APRIL 1, 2024**

The City Council of the City of Sachse held a regular meeting on Monday, April 1, 2024, at 6:30 PM at Sachse City Hall, 3815-B Sachse Road. Those present were: Councilmember Lindsay Buhler, Councilmember Frank Millsap, Mayor Jeff Bickerstaff, Mayor Pro Tem Brett Franks, Councilmember Michelle Howarth, Councilmember Matt Prestenberg, Councilmember Chance Lindsey.

A. Meeting Opening

1. Call to Order: The City Council of the City of Sachse will hold a Regular Meeting on Monday, April 1, 2024, at 6:30 PM to consider the following items of business:

Mayor Bickerstaff called the meeting to order at 6:30 PM

2. Invocation and Pledges of Allegiance.

Councilmember Howarth offered the invocation and Councilmember Prestenberg led the pledges.

B. Recognition

1. Present a proclamation recognizing April as National Safe Digging Month.

Mayor Bickerstaff presented a proclamation to Eva Hummel with Atmos Energy to recognize National Safe Digging Month.

2. Present a proclamation recognizing April 6, 2024, as Arbor Day in the City of Sachse.

Mayor Bickerstaff presented a proclamation to the Leisure Services staff in recognition of Arbor Day 2024. Ms. Hummel added that Atmos would be donating 50 trees to be planted at J.K. Sachse Park.

3. Present a proclamation recognizing April 6, 2024, as Keep America Beautiful - Great American Cleanup Day in the City of Sachse.

Mayor Bickerstaff presented the Leisure Services staff with a proclamation recognizing Keep America Beautiful - Great American Cleanup Day.

4. Present a proclamation recognizing the week of April 7-13, 2024, as National Library Week in the City of Sachse.

Mayor Bickerstaff presented a proclamation to Library Services Manager Daniel Laney in recognition of National Library Week.

C. Public Comment

1. The public is invited to address Council regarding any topic not already on the regular agenda. Comments regarding the Consent Agenda may be addressed during Public Comment. The time limit is 3 minutes per speaker. A Public Comment Card should be presented to the City Secretary prior to the meeting. According to the Texas Open Meetings Act, Council is prohibited from discussing any item not posted on the agenda but will take comments under advisement.

No public comments were offered.

D. Council/Staff Reports and Updates

1. Mayor and City Council announcements regarding special events, current activities, and local achievements.

Mayor Pro Tem Franks announced that the splash pad at JK Sachse Park is open. He also commented on the recent Easter events and the upcoming Arbor Day Jubilee and clean-up event. Councilmember Millsap noted that the library will be hosting a Unicorn party on April 12 and a book club discussion on April 4. Councilmember Howarth clarified that the cleanup on Saturday starts at 9am.

Ms. Nash congratulated Kylan Strauss on his promotion to Firefighter/Paramedic and Angel Contreras for his promotion to Water Quality Technician II.

Mayor Bickerstaff announcements:

- The fourth class of the Citizens Fire Academy is open until April 18. Classes will be held every Thursday from April 25 through June 20 from 6 to 8:30 p.m. Participants will have the opportunity to ride along with fire crews and learn more about programs in the fire service. Check out the City website for details.
- The City has moved to a new agenda and meeting management platform, CivicClerk. In order to continue receiving notifications of new agenda packets, you must create a username and password and then [subscribe](#) to the list you are interested in. Check the City website for details or contact Leah Granger with any questions at lgranger@cityofsachse.com.
- Early voting for the General Election will be from April 22 through April 30, and Election Day is May 4. Dallas County residents may vote in the City Hall Courtroom or any Dallas County Vote Center, and Collin County residents may vote in the Michael J. Felix Community Center Room A & B or any Collin County Vote Center. The last day to register to vote for this election is this Thursday, April 4. Ballot by Mail applications must be received by your residing county's office no later than noon on April 23. Please contact your county's office or City Secretary Leah Granger if you have any questions.

E. Consent Agenda - All items listed on the consent agenda will be considered by the City Council and will be enacted on by one motion. There will be no separate discussion of these items unless a Councilmember so requests.

1. Approve the March 18, regular meeting minutes.
2. Accept the monthly revenue and expenditure report for the period ending February 29, 2024.

3. Authorize the City Manager to extend the depository contract with American National Bank through May 31, 2025.

Councilmember Howarth made a motion to Approve the Consent agenda as presented. Councilmember Prestenberg seconded the motion, and it carried 7 - 0.

F. Regular Agenda Items

1. Receive the quarterly 2021 Bond update.

Ms. Nash provided an update on the 2021 Bond projects to Council noting progress and future projected timelines. Council had a few clarifying questions.

2. Consider authorizing the City Manager to negotiate and enter into a contract with Kimley-Horn and Associates, Inc. for the update to the City's Comprehensive Plan, in the amount not to exceed Three Hundred Thousand and No/100 Dollars (\$300,000.00).

Ms. Nash commented that most Comprehensive Plans are updated every five years and the last plan was created in 2017. She also noted that this would again be a joint effort between the Economic Development Corporation and City staff to produce a market-tested planning document. Economic Development Manager Jerod Potts reviewed the Comprehensive Plan update with Council, including prior discussions, the Request for Qualifications, tasks and deliverables, funding, and next steps. He specified that, as required by state law, the Planning & Zoning Commission will review and make a recommendation to Council on the plan. Staff recommends awarding the project to Kimley-Horn Associates based on qualifications, previous work with the City, and their communications strategy for the project. Mr. Potts focused on the communication plan as being a critical component of implementation.

After several questions, Councilmember Lindsey made a motion to Approve the item as presented. Councilmember Howarth seconded the motion, and it carried 7 - 0.

3. Receive an update on the Animal Shelter construction project.

Chief Sylvester updated the Council on the progress of the Animal Shelter construction project, including a visual tour. Estimated completion is September 2024 and the project is on budget.

4. Adjournment.

Mayor Bickerstaff adjourned the meeting at 7:28 p.m.

Jeff Bickerstaff, Mayor

ATTEST:

Leah K Granger, City Secretary

F. Regular Agenda Items

Subject:	1. Consider and approve an ordinance adopting the 2024 Water Conservation and Water Resources and Emergency Management Plan.
Meeting	April 15, 2024 - City Council Meeting
Access	Public
Type	Action, Discussion
Fiscal Impact	None
Recommended Action	Approve an ordinance adopting the 2024 Water Conservation and Water Resources and Emergency Management Plan.
Goals	Strategically invest in the City's existing and future infrastructure. Meet the public safety needs of a growing citizen; student; and business population.

BACKGROUND

Sachse purchases wholesale treated water from the North Texas Municipal Water District (NTMWD) and supplies it to customers via the public water system. As a customer city to NTMWD and a public water provider, the City of Sachse is responsible for adopting a water resource and emergency management plan. Every five years, public water suppliers must submit a Water Conservation Plan and a Water Resource and Emergency Management Plan to the Texas Commission on Environmental Quality (TCEQ) and the Texas Water Development Board (TWDB).

The purpose of this conservation plan is to have multiple methods and strategies to provide short-term and long-term plans for water savings during drought or emergency conditions. The main elements of the plan are continuing public education, determining initiation and termination conditions for each drought stage, and overall goals for reduction of use and those measures for each stage of the drought.

A draft version of the 2024 Water Conservation and Water Resource and Emergency Management Plan was provided on the City's website and submitted to NTMWD for review and comments.

POLICY CONSIDERATIONS

As a public water system, the City of Sachse is required to adopt a Water Conservation and Water Resource and Emergency Management Plan every five years in accordance with state law.

RECOMMENDATION

Approve an ordinance adopting the 2024 Water Conservation and Water Resources and Emergency Management Plan.

File Attachments

1. Presentation_2024 Water Conservation and Emergency Management Plan
2. Ordinance_Adopting the 2024 Water Conservation & Water Resource & Emergency Management Plan
3. 2024 Model Water Conservation Plan and Water Resources Emergency Management Plan_Final Draft

2024 Water Conservation and Water Resource and Emergency Management Plan

City Council
April 15, 2024



Overview

- Background
- Water Conservation Plan
- Water Resource and Emergency Management Plan
- Recommendation
- Discussion and Questions

Background

- Recognizing the need for efficient use of existing water supplies, TCEQ has developed guidelines and requirements governing the development of water conservation and drought contingency plans
- Sachse purchases wholesale treated water from the North Texas Municipal Water District and supplies it to customers via the public water system
- As a customer city to NTMWD and a public water provider, the City of Sachse is responsible for adopting a water resource and emergency management plan
- Latest Water Conservation and Emergency Management Plans were adopted in 2019



Water Conservation Plan

- The purpose of this conservation plan is to have multiple methods and strategies to provide short-term and long-term plans for water savings and protection
- The main elements of the plan:
 - To reduce the loss and waste of water
 - To improve efficiency in both indoor and outdoor water use
 - To maximize the level of recycling and reuse
 - To protect and preserve environmental resources
 - To extend the life of current water supplies
 - To raise public awareness of water conservation and encourage responsible personal behavior through public education programs



Water Conservation Plan

- NTMWD requires all Member Cities and Customers to adhere to a permanent outdoor watering schedule
 - **Summer (April 1 – October 31)** – Spray irrigation with sprinklers or irrigation systems at each service address must be limited to no more than **two days per week**. Additionally, prohibit lawn irrigation watering from **10 a.m. to 6 p.m.** Education should be provided that irrigation **should only be used when needed**, which is often less than twice per week, even in the heat of summer.
 - **Winter (November 1 – March 31)** – Spray irrigation with sprinklers or irrigation systems at each service address must be limited to no more than **one day per week** with education that less than once per week (or not at all) is usually adequate.
- Additional irrigation may be provided by hand-held hose with shutoff nozzle, use of dedicated irrigation drip zones, and/or soaker hose provided no runoff occurs



Water Conservation Plan

- In addition to the above-mentioned schedule, the City of Sachse implements the following irrigation or sprinkler systems watering schedule:
 - Residential even-numbered home address: Thursday and/or Sunday
 - Residential odd-numbered home address: Wednesday and/or Saturday
 - HOA owned areas and commercial watering schedule: (all addresses) Tuesday and/or Friday



Water Resource and Emergency Management Plan

- The goal of the water resource and emergency management plan is to prepare for potential water shortages, to preserve water for essential uses, and to protect public health
- The objectives to achieve these goals are as follows:
 - To save water during droughts, water shortages, and emergencies
 - To save water for domestic use, sanitation, and fire protection
 - To protect and preserve public health, welfare, and safety
 - To reduce the adverse impacts of shortages
 - To reduce the adverse impacts of emergency water supply conditions

Water Resource and Emergency Management Plan

Table 1: Water Management Plan Stages Summary

Drought Stage		April to October	November to March	Demand Reduction Goal	Outdoor Watering Restrictions
		Percent Combined Storage			
Stage 1	Initiation	70%	60%	2%	2X per week (Apr-Oct) 1X per week (Nov-Mar)
	Termination	75%	65%		
Stage 2	Initiation	55%	45%	5%	1X per week (Apr-Oct) 1X every other week (Nov-Mar)
	Termination	70%	60%		
Stage 3	Initiation	30%	20%	30%	No outdoor watering
	Termination	55%	45%		



Recommendation

- A draft version of the 2024 Water Conservation and Emergency Management Plan was provided on the City's website and submitted to NTMWD for review and comments
- Those comments have been reviewed and included in the final document
- Staff recommends approving an ordinance adopting the 2024 Water Conservation and Emergency Management Plan

Discussion and Questions

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF SACHSE, TEXAS, AMENDING CHAPTER 10 “UTILITIES” BY AMENDING ARTICLE I “IN GENERAL” BY AMENDING SECTION 7 “WATER CONSERVATION AND WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN” BY AMENDING PARAGRAPH A TO ADOPT THE “CITY OF SACHSE 2024 WATER CONSERVATION AND WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN” TO PROMOTE RESPONSIBLE USE OF WATER WITHIN THE CITY; PROVIDING A REPEALING CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY OF FINE NOT TO EXCEED THE SUM OF TWO THOUSAND DOLLARS (\$2,000.00) FOR EACH OFFENSE; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Sachse, Texas (the "City"), recognizes that the amount of water available to its water customers is limited; and

WHEREAS, the City recognizes that due to the natural limitations, drought conditions, system failures and other acts of God which may occur, the City cannot guarantee an uninterrupted water supply for all purposes at all times; and

WHEREAS, the Water Code and the regulations of the Texas Commission on Environmental Quality (the "Commission") require that the City adopt a Water Conservation Plan and a Water Resource and Emergency Management Plan; and

WHEREAS, the City has determined an urgent need is in the best interest of the public to adopt a Water Conservation Plan and a Water Resource and Emergency Management Plan; and

WHEREAS, pursuant to Chapter 54 of the Local Government Code, the City is authorized to adopt such Ordinances necessary to preserve and conserve its water resources; and

WHEREAS, the City Council desires to amend the Code of Ordinances by adopting the “City of Sachse 2024 Water Conservation and Water Resource and Emergency Management Plan” attached hereto as Addendum A, incorporated herein by reference and made a part hereof, as official City policy.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SACHSE, TEXAS, THAT:

SECTION 1. Code of Ordinances of the City of Sachse, Texas, be amended by amending Chapter 10 “Utilities” by amending Article 1 “In General” by amending Section 7 “Water Conservation and Water Resource and Emergency Management Plan,” to read as follows:

CHAPTER 10

UTILITIES

ARTICLE 1 IN GENERAL

...

§ 10-7 Water conservation plan and water resource and emergency management plan.

AMEND A:

DELETE:

~~A. 2019 City water conservation plan and 2019 city water resource and emergency plan. The 2019 city water conservation plan and 2019 city water resource and emergency management plan (the “plan”), attached hereto as addendum A, as if recited verbatim herein. The city commits to implement the requirements and procedures set forth in the adopted plan.~~

ADD:

A. 2024 City water conservation and water resource and emergency plan. The 2024 City of Sachse Water Conservation and Water Resource and Emergency Management Plan (the “plan”), attached hereto as addendum A, as if recited verbatim herein, is approved.

...”

SECTION 2. All ordinances of the City of Sachse, Texas, in conflict with the provisions of this ordinance be, and the same are hereby, repealed; provided, however, that all other provisions of said ordinances not in conflict with the provisions of this ordinance shall remain in full force and effect.

SECTION 3. An offense committed before the effective date of this ordinance is governed by prior law and the provisions of the Code of Ordinances, as amended, in effect when the offense was committed and the former law is continued in effect for this purpose.

SECTION 4. Should any word, sentence, paragraph, subdivision, clause, phrase or section of this ordinance, be adjudged or held to be void or unconstitutional, the same shall not affect the validity of the remaining portions of said ordinance which shall remain in full force and effect.

SECTION 5. That any person violating any of the provisions or terms of this Ordinance shall be subject to the same penalty as provided for in the Code of Ordinances of the City of Sachse as heretofore amended and upon conviction shall be punished by a fine not to exceed the sum of Two Thousand Dollars (\$2,000.00) for each offense.

SECTION 6. This Ordinance shall take effect immediately from and after its passage as the law in such cases provides.

PASSED AND APPROVED by the City Council of the City of Sachse, Texas this the 15th day of April 2024.

APPROVED:

Jeff Bickerstaff
Mayor

DULY ENROLLED:

Leah K Granger
City Secretary

APPROVED AS TO FORM:

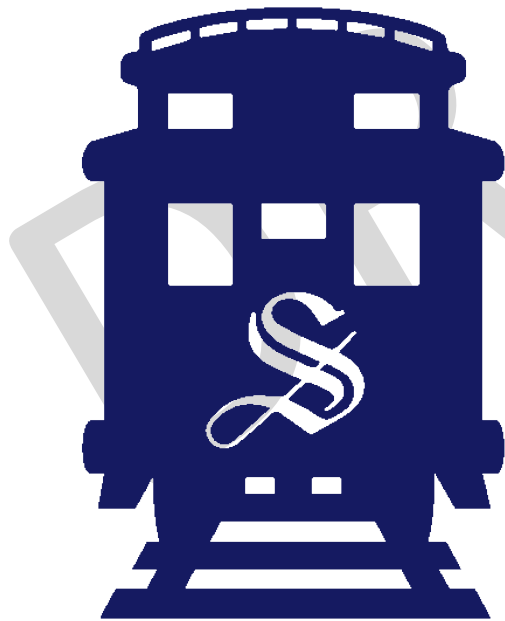
Joseph J. Gorfida, Jr.
City Attorney
(03-28-2024: 4874-3096-9522, v. 1)

ADDENDUM A
CITY OF SACHSE 2024 WATER CONSERVATION AND WATER RESOURCE AND
EMERGENCY MANAGEMENT PLAN

4874-3096-9522, v. 1

City of Sachse

2024 Water Conservation and Water Resource and Emergency Management Plan



The City of
SACHSE

Adopted on 4/15/2024

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DEFINITIONS

AQUATIC LIFE means a vertebrate organism dependent upon an aquatic environment to sustain its life.

ATHLETIC FIELD means a public sports competition field, the essential feature of which is turf grass, used primarily for organized sports practice, competition or exhibition events for schools, professional sports and league play sanctioned by the utility providing retail water supply.

BEST MANAGEMENT PRACTICES (BMPs) are voluntary efficiency measures that save a quantifiable amount of water, either directly or indirectly, and that can be implemented within a specific time frame.

COMMERCIAL VEHICLE WASH FACILITY means a permanently located business that washes vehicles or other mobile equipment with water or water-based products, including but not limited to self-service car washes, full-service car washes, roll-over/in-bay style car washes, and facilities managing vehicle fleets or vehicle inventory.

COMMERCIAL FACILITY means business or industrial buildings and the associated landscaping, but does not include the fairways, greens, or tees of a golf course.

CONSERVATION includes 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 water supply is made available for future or alternative uses.

COOL SEASON GRASSES are varieties of turf grass that grow best in cool climates primarily in northern and central regions of the U.S. Cool season grasses include but are not limited to perennial and annual rye grass, Kentucky blue grass and fescues.

CUSTOMERS include those entities to whom NTMWD provides wholesale water that are not member cities of NTMWD.

DESIGNATED OUTDOOR WATER USE DAY means a day prescribed by a rule on which a person is permitted to irrigate outdoors.

DRIP IRRIGATION is a type of micro-irrigation system that operates at low pressure and delivers water in slow, small drips to individual plants or groups of plants through a network of plastic conduits and emitters; also called trickle irrigation.

DROUGHT, for the purposes of this report, means an extended period of time when an area receives insufficient amounts of rainfall to replenish the water supply, causing water supply sources (in this case reservoirs) to be depleted.

ET/SMART CONTROLLERS are irrigation controllers that adjust their schedule and run times based on weather (ET) data. These controllers are designed to replace the amount of water lost to evapotranspiration.

EVAPOTRANSPIRATION (ET) represents the amount of water lost from plant material to evaporation and transpiration. The amount of ET can be estimated based on the temperature, wind, and relative humidity.

EXECUTIVE DIRECTOR means the Executive Director of NTMWD and includes a person the Executive Director has designated to administer or perform any task, duty, function, role, or action related to this Plan or on behalf of the Executive Director.

FOUNDATION WATERING means an application of water to the soils directly abutting (within 2 feet of) the foundation of a building or structure.

INTERACTIVE WATER FEATURES means water sprays, dancing water jets, waterfalls, dumping buckets, shooting water cannons, inflatable pools, temporary splash toys or pools, slip-n-slides, or splash pads that are maintained for recreation.

IRRIGATION SYSTEM means a permanently installed, custom-made, site-specific system of delivering water generally for landscape irrigation via a system of pipes or other conduits installed below ground.

LANDSCAPE means any plant material on a property, including any tree, shrub, vine, herb, flower, succulent, ground cover, grass or turf species, that is growing or has been planted out of doors.

MEMBER CITIES include the cities of Allen, Farmersville, Forney, Frisco, Garland, McKinney, Mesquite, Plano, Princeton, Richardson, Rockwall, Royse City, and Wylie, Texas, which are members of NTMWD.

MUNICIPAL USE means the use of potable water provided by a public water supplier as well as the use of treated wastewater effluent for residential, commercial, industrial, agricultural, institutional, and wholesale uses.

NEW LANDSCAPE means: (a) vegetation installed at the time of the construction of a residential or commercial facility; (b) installed as part of a governmental entity's capital improvement project; or (c) installed to stabilize an area disturbed by construction.

ORNAMENTAL FOUNTAIN means an artificially created structure from which a jet, stream, or flow of treated water emanates and is not typically utilized for the preservation of aquatic life.

POND is considered to be a still body of water with a surface area of 500 square feet or more. This does not include recreational swimming pools.

PUBLIC WATER SUPPLIER is an individual or entity that supplies water to the public for human consumption.

REGIONAL WATER PLANNING GROUP is a group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code §16.053.

REGULATED IRRIGATION PROPERTY means any property of a designated customer class (i.e., commercial) that uses one million gallons of water or more for irrigation purposes in a single calendar year or is greater than one acre in size.

RESIDENTIAL GALLONS PER CAPITA PER DAY (RESIDENTIAL GPCD) means the total gallons sold for retail residential use by a public water supplier divided by the residential population served and then divided by the number of days in the year.

RETAIL CUSTOMERS include those customers to whom the utility provides retail water from a water meter.

REUSE is the authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before that water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

SOAKER HOSE means a perforated or permeable garden-type hose or pipe that is laid above ground that provides irrigation at a slow and constant rate.

SPRINKLER/SPRAY IRRIGATION is the method of applying water in a controlled manner that is similar to rainfall. The water is distributed through a network that may consist of pumps, valves, pipes, and sprinklers.

SPRINKLER means an above-ground water distribution device that may be attached to a garden hose.

RECREATIONAL/SWIMMING POOL is defined as a body of water that involves contact recreation. This includes activities that are presumed to involve a significant risk of ingestion of water (e.g. wading by children, swimming, water skiing, diving, tubing, surfing, etc.)

TOTAL GALLONS PER CAPITA PER DAY (TOTAL GPCD) means the total amount of water diverted and/or pumped for potable use less wholesale sales divided by the total permanent population divided by the days of the year. Diversion volumes of reuse as defined in TAC §288.1 shall be credited against total diversion volumes for the purposes of calculating GPCD for targets and goals.

WATER CONSERVATION COORDINATOR is the person designated by a retail public water supplier that is responsible for implementing a water conservation plan.

WATER CONSERVATION PLAN means the Member City or Customer water conservation plan approved and adopted by the utility.

WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN means a plan for temporary supply management and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies required by Texas Administrative Code Title 30, Chapter 288, Subchapter B. This is sometimes called a drought contingency plan.

ABBREVIATIONS

Ac-Ft/Yr	Acre-Feet per Year
BMP	Best Management Practices
CDC	Centers for Disease Control and Prevention
DWU	Dallas Water Utilities
E&O	Education and Outreach
ED	Executive Director
EPA	Environmental Protection Agency
ET	Evapotranspiration
FNI	Freese and Nichols, Inc.
gpf	Gallons per Flush
gpm	Gallons per Minute
LAMP	Linear Asset Management Plan
LRWSP	Long Range Water Supply Plan
FWSD	Fresh Water Supply District
GPCD	Gallons per Capita per Day
ICIM	Industrial, Commercial, Institutional and Multifamily
MGD	Million Gallons per Day
MUD	Municipal Utility District
NCTCOG	North Central Texas Council of Governments
NTMWD	North Texas Municipal Water District
SUD	Special Utility District
TCEQ	Texas Commission on Environmental Quality
TRWD	Tarrant Regional Water District
TWDB	Texas Water Development Board
UTRWD	Upper Trinity Regional Water District
UD	Utility District
WCAC	Water Conservation Advisory Council
WCP	Water Conservation Plan
WREMP	Water Resource and Emergency Management Plan
WSC	Water Supply Corporation
WENNT	Water Efficiency Network of North Texas
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant



The City of
SACHSE

City of Sachse 2024 Water Conservation Plan

This Water Conservation Plan has been developed in accordance with the requirements of 30 Texas Administrative Code (TAC) Chapter 288. A copy of the version of 30 TAC Chapter 288 in place at the time of this Plan preparation is included in Appendix B.

1.00 INTRODUCTION

The City of Sachse is a Customer of the North Texas Municipal Water District (NTMWD). This Plan was developed following TCEQ guidelines and requirements governing the development of water conservation plans.

The goal of the Water Conservation Plan is to serve as good stewards of water resources by preserving water supplies for essential uses and the protection of public health. The objectives to achieve this goal are as follows:

- To reduce the loss and waste of water.
- To improve efficiency in both indoor and outdoor water use.
- To maximize the level of recycling and reuse.
- To protect and preserve environmental resources.
- To extend the life of current water supplies.
- To raise public awareness of water conservation and encourage responsible personal behavior through public education programs.

1.01 MINIMUM REGULATORY REQUIREMENTS CHECKLIST

A water conservation plan is defined as “[a] strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document”. Recognizing the need for efficient use of existing water supplies, TCEQ has developed guidelines and requirements governing the development of water conservation and drought contingency plans. The minimum TCEQ requirements and where they are addressed within this document are included in **Appendix B**.

1.02 ADDITIONAL REQUIREMENTS AND GUIDANCE

In addition to TCEQ rules regarding water conservation, this Plan also incorporates both minimum requirements as required from NTMWD and elements from several conservation initiatives.

- **2024 NTMWD Water Conservation Plan** – Member Cities and Customers of the NTMWD are required to implement water conservation strategies as designated in the NTMWD Water Conservation Plan. These strategies represent minimum measures to be implemented and enforced to promote water conservation and are to remain in effect on a permanent basis.
- **Guidance and Methodology for Reporting on Water Conservation and Water Use** - Developed by TWDB and TCEQ in consultation with the Water Conservation Advisory Council (the Guidance). The Guidance was developed in response to a charge by the 82nd Texas Legislature to

develop water use and calculation methodology and guidance for preparation of water use reports and water conservation plans in accordance with TCEQ rules.

- **North Texas Regional Landscape Initiative** – The North Texas regional water providers (NTMWD, DWU and TRWD) collaborated to create the Regional Landscape Initiatives. This document was developed as a resource of best management practices for municipal staff to help reduce water waste and encourage long-term water conservation in the North Texas region. Information consists of the background, importance, and benefits of each BMP and key talking points to consider when implementing the strategy. Several of the optional water management measures included in this Plan are from this collaborative initiative.

2.00 WATER UTILITY PROFILE

This section contains a description of the City of Sachse’s service area and water system. This information can also be reviewed in **Appendix C**, which contains a completed TCEQ Water Utility Profile.

2.01 DESCRIPTION OF THE SERVICE AREA

Primarily located in the northeast section of the Dallas-Fort Worth metroplex. The City of Sachse is located within both Dallas and Collin County.

Sachse is approximately 9.9 square miles and is home to over 30,610 residents. The Public Works Department serves approximately 9,104 Single Family, 2,234 Multi-Family, 90 Public/Institution and 366 Commercial Water Meters within our city limits.

2.02 WATER UTILITY PROFILE

City of Sachse’s existing water supply is composed of the following sources.

- Purchased Treated Water from NTMWD

3.00 WATER CONSERVATION GOALS

TCEQ rules require the adoption of specific 5-year and 10-year water conservation goals for a water conservation plan.

3.01 5- AND 10-YEAR GOALS

Per capita water use varies from year to year based on several factors including weather conditions, changing demographics and other variables. The TWDB requires specific 5- and 10-year goals which are summarized in **Table 1**.

Table 1: 5- and 10-Year Per Capita Water Use Goals

	Historic 5-Year Average	Baseline	5-Year Goal 2029	10-Year Goal 2034
Total (GPCD) ¹	118	142	115	110
Residential (GPCD) ²	91	107	95	90
ICIM (GPCD) ³	17	18	21	18
Water Loss (GPCD) ⁴	8	17	10	8
Water Loss (Percentage) ⁵	8%	12%	12%	10%

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

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

³ICIM GPCD = (Gallons Used for Industrial, Commercial, Institutional and Multi-family Use / Permanent Population) / 365

⁴Water Loss GPCD = (Total Water Loss / Permanent Population) / 365

⁵Water Loss Percentage = (Total Water Loss / Total Gallons in System) x 100; or (Water Loss GPCD / Total GPCD) x 100

3.02 METHOD FOR TRACKING

NTMWD requires Member Cities and Customers to complete annual conservation reports by March 31 of the following year and submit them to NTMWD. A copy of the form is included as **Appendix D**.

The completion of this Annual Water Conservation Report allows the City of Sachse to track the effectiveness of its water conservation programs over time and reassess those programs that are not providing water savings, ensuring maximum water use efficiency and greater levels of conservation.

4.00 METERING, RECORDS AND WATER LOSS CONTROL

4.01 METERING PROGRAM

One of the key elements in water conservation is careful tracking of water use and control of losses. Careful metering of water deliveries and water use, detection and repair of leaks in the distribution system, and regular monitoring of unaccounted water are important in controlling losses.

ACCURATE METERING OF TREATED WATER DELIVERIES FROM NTMWD

Accurate metering of water diversions and deliveries, detection, and repair of leaks in the raw water transmission and potable water distribution systems and regular monitoring of nonrevenue water are important elements of NTMWD's program to control losses. Water deliveries from NTMWD are metered by NTMWD using meters with accuracy of $\pm 2\%$. These meters are calibrated on an annual basis by NTMWD to maintain the required accuracy.

METERING OF CUSTOMER AND PUBLIC USES

The City of Sachse uses Master Meter water meters equipped with Harmony software and Advanced Metering Infrastructure (AMI) communication technology to provide accurate and real-time information on water usage within the City.

METER TESTING, REPAIR AND REPLACEMENT

The City of Sachse began updating and replacing old water meters with new meters equipped with radio reading technology prior to 2017. On an annual or as-needed basis city staff test, repair and replace

these meters as part of the ongoing system operations and maintenance. All new meters installed are required to meet current standards and technologies. We have a dedicated team to address meter reading, repairs and installations. Based on monthly meter reading and information provided by Master Meter/AMI, staff is able to determine which meters are not functioning and in need of replacement or repairs. Meters are also sampled and tested to maintain accuracy and to provide routine maintenance.

4.02 MONITORING AND RECORD MANAGEMENT PROGRAM

As required by TAC Title 30, Chapter 288, a record management system should allow for the separation of water sales and uses into residential, commercial, public/institutional, and industrial categories. This information is included in the NTMWD annual water conservation report that is included in **Appendix D**.

4.03 WATER LOSS CONTROL PROGRAM

DETERMINATION AND CONTROL OF WATER LOSS

Total water loss is the difference between treated water pumped and authorized consumption or metered deliveries to customers. Authorized consumption includes billed metered uses, unbilled metered uses, and unbilled unmetered uses such as firefighting and releases for flushing of lines.

Water losses include two categories:

- Apparent losses such as inaccuracies in customer meters. (Customer meters tend to run more slowly as they age and under-report actual use). Unauthorized consumption due to illegal connections and theft.
- Real losses due to water main breaks and leaks in the water distribution system and unreported losses.

LEAK DETECTION AND REPAIR

The City of Sachse utilizes daily water meter information provided by Master Meter/AMI to help detect leaking meters or service lines. The software provides an alarm if the normal usage is exceeded and we can send maintenance staff to further investigate. Crew members are also inspecting and observing meters and infrastructure on a daily basis to help catch leaking meters or lines. Visual inspections of wet or damp areas are investigated to help determine the cause of the water source. The system notifications also help staff with notifying home owners for unknown leaks or damaged lines past the water meter. Leak adjustments, if warranted, can be provided to the home owner based on data and information collected.

5.00 CONTRACT REQUIREMENTS FOR WHOLESALE CUSTOMERS

Every water supply contract entered into or renewed after official adoption of this water conservation plan, including any contract extension, will include a requirement that each wholesale customer of the City of Sachse must develop and implement a water conservation plan and water conservation measures. If the customer intends to resell the water, then the contract between the initial supplier and customer must specify that the contract for the resale of the water must have water conservation

requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of Title 30 TAC Chapter 288.

6.00 RESERVOIR SYSTEM OPERATIONS PLAN

The City of Sachse purchases treated water from NTMWD and does not have surface water supplies for which to implement a reservoir system operations plan. NTMWD operates multiple sources of water supply as a system. The operation of the reservoir system is intended to optimize the use of the District's sources (within the constraints of existing water rights) while minimizing energy use cost for pumping, maintaining water quality, minimizing potential impacts on recreational users of the reservoirs and fish and wildlife.

7.00 CONSERVATION PLAN ADOPTION AND ENFORCEMENT

7.01 MEANS OF IMPLEMENTATION AND ENFORCEMENT

Staff will implement the Plan in accordance with adoption of the Plan. **Appendix F** contains a copy of the ordinance adopted regarding this Plan. The document designates responsible officials to implement and enforce the Plan.

As referenced in Article I, Chapter 10, Section 7:

For a first violation of any provision of the water conservation plan and/or the water resource management plan or this article, the city shall issue a letter and provide educational materials on water conservation, including a copy of the relevant provisions of this article to the water user violating the provisions of this article. The city shall give the water user a reasonable time to correct the violation.

For a second violation of any provision of the water conservation plan and/or the water resource management plan or this article, the city shall issue the water user a citation and upon conviction shall be subject to a fine not to exceed the sum of two thousand dollar (\$2,000.00).

The city's current five-tier level conservation rate structure is in effect year-round to encourage ongoing water conservation. Additional rate surcharges may be established when it is required to meet the reduction goal in each respective stage of this article.

7.02 REVIEW AND UPDATE OF WATER CONSERVATION PLAN

TCEQ requires that the water conservation plan be updated every five years. This Plan will be updated as required and as appropriate based on new or updated information.

7.03 REGIONAL WATER PLANNING GROUP AND NTMWD NOTIFICATION

In accordance with TCEQ regulations, a copy of this water conservation plan was provided to the Region C Water Planning Group. In accordance with NTMWD contractual requirements, a copy of this water conservation plan was also sent to NTMWD. **Appendix E** includes a copy of the letters sent.

8.00 WATER CONSERVATION PROGRAM

8.01 PUBLIC EDUCATION PROGRAM

A. NTMWD PUBLIC EDUCATION PROGRAM AND TECHNICAL ASSISTANCE

The City of Sachse obtains water conservation support from the NTMWD. This includes several public education and outreach efforts such as:

- Beginning in 2006 and continuing through 2018, NTMWD invested in the development and implementation of the “Water IQ: Know Your Water” campaign, including newspaper ads, radio spots, billboards, a website, and other forms of communication all intended to educate the public regarding water use and water conservation. During the 2017 campaign, over a quarter of a million people were reached by the program through media relations, outreach and interactive media. The total audience reached through the campaign in 2017 was over 88 million impressions.
- In 2013, NTMWD participated in the “Water My Yard” program to install weather stations throughout its service area to provide consumers with a weekly email or text message and information through the Water My Yard website recommending the adequate amount of supplemental water that is needed to maintain healthy grass in specific locations. This service represents the largest network of weather stations providing ET-based irrigation recommendations in the state of Texas and provides the public with advanced information regarding outdoor irrigation needs, thereby reducing water use. Through a series of selections on the type of irrigation system a consumer has, a weekly email or text message is provided that will recommend how long (in minutes) that an irrigation system needs to run based on the past seven days of weather. This recommendation provides the actual amount of supplemental water that is required for a healthy lawn based on research of the Texas A&M Agrilife Extension Service and proven technologies.
- “Water4Otter” is a water conservation campaign for kids launched by NTMWD in 2014. It is based on the insight that most parents agree they would listen if their kids asked them to conserve water. The TWDB awarded the NTMWD a conservation grant to develop Water4Otter as a model program that could be used throughout the state. The 2023 program included 22 performances at 11 schools in eight different ISDs including stops at elementary schools in Wylie, Garland, Mesquite, Plano, Princeton, Richardson, and Royse City.
- “Love Lavon Lake” is a water conservation campaign designed to help North Texans know their primary water source. The campaign launched in 2018 with a call to action to, “Conserve your water source. Love Lavon Lake”. The campaign was based on market research showing the more people know the source of their drinking water, the more likely they are to use it wisely and efficiently.
- NTMWD implemented the “#PledgetoPlantSmart” initiative that seeks to inspire positive change in water conservation by encouraging North Texas residents to do their part and plant smart by selecting native or adapted plants for their garden and landscaping.

NTMWD also participates in a regional outreach campaign called “Water is Awesome” partnering with the City of Dallas and Tarrant Regional Water District. NTMWD Member Cities and Customers have access to the campaign materials which include:

- In 2019, an additional tagline, “Keep Texas Water on Tap”, was incorporated to promote the Water is Awesome brand and direct traffic to waterisawesome.com.
- In 2020, a “customer city toolkit” provided customizable resources allowing cities to incorporate their logos with the campaign brand for their website, social media, and print. Cities are encouraged to use campaign resources to advance conservation efforts.
- In 2021, the regional water providers collaborated to create the Regional Landscape Initiatives. This document was developed as a resource of best management practices for municipal staff to help reduce water waste and encourage long-term water conservation in the North Texas region. Information consists of the background, importance, and benefits of each BMP and key talking points to consider when implementing the strategy. Several of the optional water management measures included in this Plan are from this collaborative initiative.
- The 2023 campaign will include a focus on short HGTV-style web series about converting yards into drought-resistant, water-conservative yard-scapes.

Conservation materials and more are made available to Member Cities and Customers through an online portal that is hosted by NTMWD. In addition to the portal the NTMWD actively provides technical assistance through the following:

- NTMWD holds **Regularly Scheduled Meetings** with Member Cities and Customers for water supply updates, public campaign strategies, and legislative activities related to water and water conservation.
- NTMWD purchases **American Water Works Association Research Foundation Publications** for use by Member Cities and Customers to further enhance resources for water efficiency, water rate structures, etc. Additionally, NTMWD pays for Member City and Customer membership to the **Alliance for Water Efficiency**.
- To assist its Member Cities and Customers in the development of their own water conservation plans, NTMWD has developed a **Model Water Conservation Plan for NTMWD Member Cities and Customers**. The Model Water Conservation Plan addresses TCEQ requirements for water conservation plans for municipal use by public water suppliers and includes advanced water conservation strategies beyond TCEQ requirements that mirror the NTMWD plan. This is available online at <https://www.ntmwd.com/login/portal/>.
- Since 2003, NTMWD has held **Water Conservation Workshops** for staff of its Member Cities and Customers. These workshops have covered several conservation-related topics, including TCEQ requirements for water conservation and drought contingency plans, advanced water conservation strategies, current NTMWD water conservation efforts, water conservation programs of the cities, current drought status, progress on future water supplies, and related topics. These workshops also provide training and education regarding water use accounting,

irrigation evaluations, industrial, commercial, and institutional audits, and other procedures. Additional examples include workshops on Water Loss Audit Training as well as on the TWDB Water Conservation Planning Tool.

- Based on the annual reporting data collected from Member Cities and Customers from 2022, approximately 24% of the District's treated water sales went to supply ICIM users within their service area. To target programs for this customer base, the District hired Plummer Associates, Inc. to create the **Industrial, Commercial, Institutional and Multifamily Program**. The ICIM program provides NTMWD Member City and Customer staff with the knowledge and tools necessary to identify ICIM customers with high water usage. This program was created to categorize water use data to find outliers and identify areas to concentrate water conservation efforts. This program can help Member Cities and Customers' ICIM water customers develop targeted methods for increasing water efficiency as an alternative to a traditional voluntary approach for water consumption improvement.
- As part of the ICIM program, the District is currently engaging with the Member and Customer Cities to encourage their ICIM customers to participate in **Water Efficiency Opportunity Surveys**. These surveys encompass a building audit that recommends various water conservation measures that can be implemented to save both money and water. Items addressed include toilet retrofits, urinal retrofits, showerhead retrofits, lavatory retrofits, non-lavatory faucet retrofits, leak repair, water cooled ice machine retrofit, commercial disposer, food steam, cooling tower efficiency and irrigation system efficiency. As of June 2023, NTMWD has utilized the ICIM program to audit four buildings resulting in an estimated annual water savings of 87.4 million gallons.
- As part of its wastewater system, NTMWD has developed **Industrial Pretreatment Programs** for the cities of Allen, Forney, Frisco, McKinney, Mesquite, Murphy, Plano, Richardson, Rockwall, Terrell, and Wylie. The pretreatment programs developed by NTMWD are adopted and implemented by the cities, which are also responsible for enforcement of the programs. By reducing allowable volumes of specific pollutants and encouraging pretreatment of industrial wastes, this joint effort by NTMWD and the cities has improved water quality in the region's streams and reservoirs. NTMWD industrial pretreatment personnel are also available to assist cities on request in the review or design of systems to allow industrial recycling and reuse of wastewater. Such systems have reduced water use by some industries, while also reducing wastewater volumes and saving money for the industries.
- NTMWD encourages its Member Cities and Customers to develop and implement **Rebate and Bulk Purchasing Programs** that help the Member Cities and Customers achieve overall water savings. Further, NTMWD provides technical assistance to those Member Cities and Customers who wish to implement rebate and bulk purchasing programs.

B. PUBLIC EDUCATION PROGRAM

The City of Sachse offers multiple resources on the City of Sachse's webpage regarding leak repairs, adjustments, water consumption (My Water Advisor), how to read your water meter and conservation

measures and guidelines for landscape watering. In addition to City provided information, there are links provided to NTMWD, TCEQ, and other water resource providers.

My Water Advisor is a free service to allow residential customers access to their consumption habits. My Water Advisor is available as a mobile app for both iOS and Android, and by PC to set thresholds that will alert via text message or email. Once alert settings are personalized, alerts can include continuous 24-hour consumption, consumption above a maximum consumer-defined limit and consumption during a specific time frame.

Promote WaterMyYard® app which can be found on the town's website. Updates will be posted weekly under the 'Water Conservation' page for watering recommendations.

Online education (such as videos and research articles) informing residents on how to reduce water usage is continually posted via the city's Facebook, Instagram, and website pages. Weekly e-newsletters are sent out to registered residents.

Mailing inserts are sent out periodically with the utility bill to every resident which contains information regarding water education along with seasonal watering guidelines.

Promote the Texas SmartScape website (www.txsmartscape.com) and provide water conservation tools which are available to the public at City Hall.

Partners with the EPA WaterSense program and supports the 'Fix a Leak Week' along with other promotional materials.

Free sprinkler evaluations are offered through Utility Billing which shows residents how much water they were using before and after their evaluation through one-on-one education.

8.02 REQUIRED CONSERVATION STRATEGIES

The following water conservation strategies are required. These strategies represent minimum measures to be implemented and enforced to promote water conservation and are to remain in effect on a permanent basis.

A. TCEQ CONSERVATION PLAN REQUIREMENTS

The preceding sections cover the regulatory requirements identified in TAC Title 30, Part 1, Chapter 288, Subchapter B, Rule 288. These rules are included in **Appendix B**.

B. CONSERVATION COORDINATOR

The designation of a Conservation Coordinator is required by House Bill 1648, effective September 1, 2017 for all retail public water utilities with 3,300 service connections or more. The NTMWD requires that all Member Cities and Customers, regardless of number of connections, appoint a Conservation Coordinator who will serve as the primary point of contact between the entity and the District on conservation matters.

The duties of the Conservation Coordinator are as follows:

- Submit an annual conservation report to NTMWD by March 31. This is referred to as the 'Appendix D Report'. NTMWD will provide a blank workbook for each Member City and Customer to fill out prior to the deadline.
- Submit an adopted water conservation and water resource and emergency management plan by May 1, 2024 (and every five years afterwards). These plans must be submitted to NTMWD, the applicable Regional Water Planning Group, TCEQ and TWDB. The conservation coordinator is also responsible for submitting a copy of the Plan if it is updated after initial adoption and submission.

The City of Sachse's Conservation Coordinator is identified below. The City of Sachse will notify NTMWD if this changes at any point before the water conservation plan is updated.

Jon Lara, Public Works Coordinator
972-495-7600
jlara@cityofsachse.com

C. WATER CONSERVATION PRICING

Each Member City and Customer must adopt an increasing block rate water structure that is intended to encourage water conservation and to discourage excessive use and waste of water.

The City of Sachse's water rate structure is as follows:

Residential Rates

Residential:

All sizes- \$17.34 plus tier rate

Non-residential/Irrigation:

5/8-inch meters: \$17.34 plus tier rate
1-inch meters: \$27.42 plus tier rate
1.5-inch meters: \$44.29 plus tier rate
2-inch meters: \$64.50 plus tier rate
3-inch meters: \$89.93 plus tier rate
4-inch meters: \$119.87 plus tier rate
6-inch and above: \$299.74 plus tier rate

Water Tiers for All Meters:

Tier	Water Usage (Gallons)	Fee (Per 1,000 Gallons)
Tier 1	0-10,000	\$5.15
Tier 2	10,001-20,000	\$6.88
Tier 3	20,001-30,000	\$8.93
Tier 4	30,001 +	\$10.51

Commercial/Industrial Rates

Commercial/Industrial:

5/8-inch meters: \$17.34 plus tier rate
1-inch meters: \$27.42 plus tier rate
1.5-inch meters: \$44.29 plus tier rate
2-inch meters: \$64.50 plus tier rate
3-inch meters: \$89.93 plus tier rate
4-inch meters: \$119.87 plus tier rate
6-inch and above: \$299.74 plus tier rate

Water Tiers for All Meters:

Tier	Water Usage (Gallons)	Fee (Per 1,000 Gallons)
Tier 1	0-10,000	\$5.15
Tier 2	10,001-20,000	\$6.88
Tier 3	20,001-30,000	\$8.93
Tier 4	30,001 +	\$10.51

D. ORDINANCES, PLUMBING CODES, OR RULES ON WATER-CONSERVING FIXTURES

The City of Sachse's plumbing code standards encourages water conservation and meets the minimum statutory requirements. The state has required water-conserving fixtures in new construction and renovations since 1992. The state standards call for flows of no more than 2.5 gallons per minute (gpm) for faucets, 2.5 gpm for showerheads. As of January 1, 2014, the state requires maximum average flow rates of 1.28 gallons per flush (gpf) for toilets and 0.5 gpf for urinals. Similar standards are now required under federal law. These state and federal standards assure that all new construction and renovations will use water-conserving fixtures.

E. REUSE AND RECYCLING OF WASTEWATER

NTMWD currently has the largest wastewater reuse program in the state. NTMWD has water rights allowing reuse of up to 71,882 acre-feet per year (64 MGD) of treated wastewater discharges from the Wilson Creek Wastewater Treatment Plant for municipal purposes. Additionally, NTMWD has permitted and is currently constructing the Sister Grove Regional Water Resource Recovery Facility (WRRF) in the Lavon Lake watershed. This facility will have an initial capacity of 16 MGD and an ultimate capacity of 64 MGD.

NTMWD has also developed the East Fork Water Reuse Project which can divert treated wastewater discharges by NTMWD and purchased wastewater return flows from TRA via Main Stem Pump Station. NTMWD also provides treated effluent from its wastewater treatment plants available for direct reuse for landscape irrigation and industrial use.

F. YEAR-ROUND OUTDOOR WATERING SCHEDULES

A mandatory weekly watering schedule has been gradually gaining acceptance in the region and the state. NTMWD requires all Member Cities and Customers to adhere to a permanent outdoor watering schedule.

- **Summer (April 1 – October 31)** – Spray irrigation with sprinklers or irrigation systems at each service address must be limited to no more than **two days per week**. Additionally, prohibit lawn irrigation watering from **10 a.m. to 6 p.m.** Education should be provided that irrigation **should only be used when needed**, which is often less than twice per week, even in the heat of summer.
- **Winter (November 1 – March 31)** – Spray irrigation with sprinklers or irrigation systems at each service address must be limited to no more than **one day per week** with education that less than once per week (or not at all) is usually adequate.

Additional irrigation may be provided by hand-held hose with shutoff nozzle, use of dedicated irrigation drip zones, and/or soaker hose provided no runoff occurs. Many North Texas horticulturists have endorsed twice-weekly watering as more than sufficient for landscapes in the region, even in the heat of summer.

In addition to the above-mentioned schedule. The City of Sachse implements the following irrigation or sprinkler systems watering schedule:

Residential Even-numbered home address: Thursday and/or Sunday

Residential Odd-numbered home address: Wednesday and/or Saturday

HOA owned areas and Commercial watering schedule: All addresses: Tuesday and/or Friday

G. TIME OF DAY WATERING SCHEDULE

NTMWD requires that during the summer months (April 1 – October 31) under normal conditions, spray irrigation with an irrigation system or sprinkler is only permitted on authorized watering days, before 10 a.m. or after 6 p.m. The primary purpose of this measure is to reduce wind drift and evaporation losses during the active growing season. The time-of-day watering schedule requirement increases watering efficiency by eliminating outdoor irrigation use when climatic factors negatively impact irrigation system efficiencies. Midday irrigation is not an optimal time to irrigate because evapotranspiration rates are higher, and plants are more susceptible to stress associated with factors such as higher temperatures and lower relative humidity.

H. IRRIGATION SYSTEM REQUIREMENTS FOR NEW AND COMMERCIAL SYSTEMS

In 2007, the 80th Texas Legislature passed House Bill 1656, Senate Bill 3, and House Bill 4 related to regulating irrigation systems and irrigators by adopting minimum standards and specifications for designing, installing, and operating irrigation systems. The Texas legislation required cities with a population over 20,000 to develop a landscape irrigation program that includes permitting, inspection, and enforcement of water conservation for new irrigation systems.

NTMWD **requires** all Member Cities and Customers adhere to a minimum set of irrigation standards:

- 1) Require that all new irrigation systems be in compliance with state design and installation regulations (Texas Administrative Code Title 30, Chapter 344).

- 2) Require operational rain and freeze sensors and/or ET or Smart controllers on all new irrigation systems. Rain and freeze sensors and/or ET or Smart controllers must be properly maintained to function properly.
- 3) Require that irrigation systems be inspected at the same time as initial backflow preventer inspection.
- 4) Require the owner of a regulated irrigation property to obtain an evaluation of any permanently installed irrigation system on an annual basis. The irrigation evaluation shall be conducted by a licensed irrigator in the state of Texas and be submitted to the local water provider (i.e., city, water supply corporation).

I. WATER WASTE PROVISIONS

NTMWD requires all Member Cities and Customers prohibit activities that waste water. The main purpose of a water waste ordinance is to provide for a means to enforce that water waste is prevented during lawn and landscape irrigation, that water resources are conserved for their most beneficial and vital uses, and that public health is protected. It provides a defined enforcement mechanism for exceptional neglect related to the proper maintenance and efficient use of water fixtures, pipes, and irrigation systems. The ordinance can provide additional assistance or enforcement actions if no corrective action has been taken after a certain number of correspondences.

NTMWD **requires** that the following water waste ordinance offenses include:

- 1) The use of irrigation systems that water impervious surfaces. (Wind-driven water drift will be taken into consideration.)
- 2) Outdoor watering during precipitation or freeze events.
- 3) The use of poorly maintained sprinkler systems that waste water.
- 4) Excess water runoff or other obvious waste.
- 5) Overseeding, sodding, sprigging, broadcasting or plugging with cool season grasses or watering cool season grasses, except for golf courses and athletic fields.
- 6) The use of potable water to fill or refill residential, amenity, and any other natural or manmade ponds. A pond is considered to be a still body of water with a surface area of 500 square feet or more. This does not include recreational swimming pools.
- 7) Non-commercial car washing that does not use a water hose with an automatic shut-off valve.
- 8) Hotels and motels that do not offer a linen reuse water conservation option to customers.
- 9) Restaurants, bars, and other commercial food or beverage establishments that provide drinking water to customers unless a specific request is made by the customer for drinking water.

Enforcement of offenses are processed in accordance with adopted City ordinances and administrative fees.

8.03 CONSERVATION STRATEGIES

A. USE OF ET-BASED WEEKLY WATERING ADVICE/RECOMMENDATIONS

NTMWD requires that Member Cities and Customers adhere to a year-round outdoor watering schedule. However, this conservation practice can be improved with the use of ET-based weekly watering advice and recommendations. Landscapes frequently require less watering than the year-round water schedule allows. This measure can be particularly useful for entities with a significant percentage of customers using automated landscape irrigation systems.

Water providers in the Dallas-Fort Worth (DFW) area (including NTMWD) sponsor weather stations to collect daily weather data and provide the most accurate watering recommendations. Many cities in the DFW area can already take advantage of these ET-based recommendations and incorporate them into their water conservation programs, at no cost to the city. Examples of such a service are shown below.

- **Water My Yard** – An online platform where homeowners can sign up to receive weekly watering recommendations based on their location and a few specifications about their sprinkler system. Users can then choose to accept the recommendations by email, text, or both. Recommendations are available for select cities in Collin, Dallas, Denton, Fannin, Hunt, Kaufman, and Rockwall Counties. Sponsored by NTMWD and Texas A&M AgriLife Extension Service (WaterMyYard.org).
- **Water Is Awesome Weekly Watering Advice** – Weekly watering recommendations for most of North Texas based on data from weather stations scattered throughout the DFW area. The recommendations are distributed by email and text every week and are provided in inches of water needed and the number of minutes necessary to apply that amount of water for spray, rotor, and multi-stream sprinklers. Advice service is available for all of North Central Texas and sponsored by DWU and TRWD. (<https://waterisawesome.com/weekly-watering-advice>).

Providing evapotranspiration (ET)-based weekly watering recommendations can reduce the amount of water applied for outdoor watering if customers follow the guidance. A drawback with this BMP is the adoption rate. Since these recommendations may change every week, it requires customers to adjust their controllers more often.

B. ADDITIONAL WATER WASTE PROVISIONS

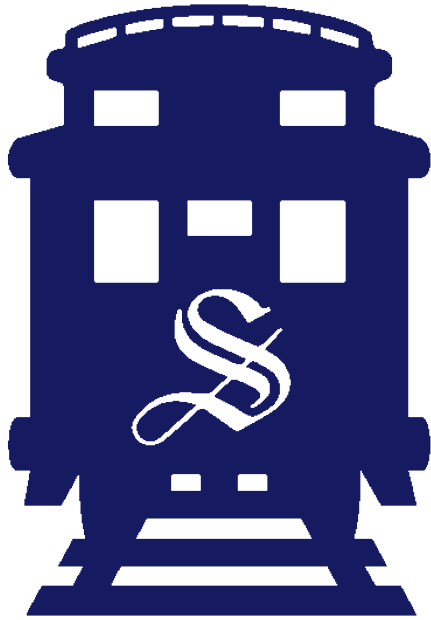
NTMWD requires certain water waste provisions. However, this conservation practice can be improved with the inclusion of additional water waste provisions suited for your entity. As discussed previously, the main purpose of a water waste ordinance is to provide a means for enforcement that water waste is prevented during lawn and landscape irrigation, that water resources are conserved for their most beneficial and vital uses, and that public health is protected. It provides a defined enforcement mechanism for exceptional neglect related to the proper maintenance and efficient use of water fixtures, pipes, and irrigation systems. The ordinance can provide additional assistance or enforcement actions if no corrective action has been taken after a certain number of correspondences.

NTMWD **recommends, but does not require**, the following additional water waste ordinance offenses:

- 1) Sprinkler runoff from a property greater than 50 feet.

- 2) *Operating an irrigation system or other lawn watering device during any form of precipitation or when temperatures are below 32 degrees Fahrenheit.*
- 3) *Irrigation to pond in a street or parking lot to a depth greater than 1/4 inch.*
- 4) *Failure to repair a controllable leak, including but not limited to a broken sprinkler head, a leaking valve, leaking or broken pipes, or a leaking faucet.*
- 5) *Operating a permanently installed irrigation system with a broken head or a head that is out of adjustment where the arc of the spray head is over a street or parking lot.*
- 6) *Washing of driveways, sidewalks, parking lots or other impervious surface areas with an open hose or spray nozzle attached to an open hose, except when required to eliminate conditions that threaten public health, safety or welfare.*
- 7) *Installation of splash pads that use a flow-through system instead of a cycle tank.*

All splash pads should follow the manufacturer's recommendations and health agency guidance for the operation and management of splash pads and have standard operating procedures that help ensure water quality and promote conservation. Standard operating procedures should be tailored to the type of splash-pad (flow-through or cycle tank). Regardless of splash pad type or configuration, consideration should be given towards conservation efforts. For example, operating hours could be adjusted often based on frequency and duration of public use or the runoff can be diverted to serve a functional purpose, such as maintaining native and adapted vegetation.



The City of
SACHSE

2024 WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN

Under Texas Water Code Chapter 11 and Title 30 Texas Administrative Code Chapter 288, Retail, Irrigation and Wholesale Public Water Suppliers are required to develop, implement and submit updated Drought Contingency Plans to TCEQ every five years.

1.00 INTRODUCTION

The City of Sachse is a Customer of the North Texas Municipal Water District (NTMWD). This Plan was developed following TCEQ guidelines and requirements governing the development of drought contingency plans.

The goal of the water resource and emergency management plan is to prepare for potential water shortages and to preserve water for essential uses and the protection of public health. The objectives to achieve this goal are as follows:

- To save water during droughts, water shortages, and emergencies.
- To save water for domestic use, sanitation, and fire protection.
- To protect and preserve public health, welfare, and safety.
- To reduce the adverse impacts of shortages.
- To reduce the adverse impacts of emergency water supply conditions.

Note: NTMWD refers to their drought contingency plan (DCP) as the water resource and emergency management plan (WREMP) and should be considered synonymous with a DCP.

1.01 MINIMUM REGULATORY REQUIREMENTS

A drought contingency plan is defined as “a strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies”. Recognizing the need for efficient use of existing water supplies, TCEQ has developed guidelines and requirements governing the development of water conservation and drought contingency plans.

The minimum TCEQ requirements and where they are addressed within this document are described in **Appendix B**.

2.00 IMPLEMENTATION AND ENFORCEMENT

2.01 PROVISIONS TO INFORM THE PUBLIC AND OPPORTUNITY FOR INPUT

The City of Sachse provided opportunity for public input in the development of this Plan by the following means:

- Posting the draft Plan on the community website and/or social media.
- Providing the draft Plan to anyone requesting a copy.
- Approving the Plan at a public City Council meeting on [4/15/2024](#). Public notices of this meeting were provided on the community website and live audio was available during the meeting

[\[Enter date that public meeting was held\]](#)[\[Enter date\]](#).

2.02 PROGRAM FOR CONTINUING PUBLIC EDUCATION AND INFORMATION

The City of Sachse informs and educates the public about the Plan by the following means:

- Preparing a bulletin describing the plan and making it available at City Hall and/or other appropriate locations.
- Including information and making the Plan available to the public through the community website and/or social media.
- Notifying local organizations, schools, and civic groups that utility staff are available to make presentations on the Plan (usually in conjunction with presentations on water conservation programs).
- At any time that the Plan is activated or changes, the City of Sachse will notify local media of the issues, the water resource management stage (if applicable), and the specific actions required of the public. The information will also be publicized on the community website and/or social media. Billing inserts will also be used as appropriate.

2.03 COORDINATION WITH THE REGIONAL WATER PLANNING GROUPS AND NTMWD

Appendix E of this Plan includes copies of letters sent to the Chairs of the appropriate regional water planning groups as well as NTMWD.

2.04 INITIATION AND TERMINATION OF WATER RESOURCE MANAGEMENT STAGES

A. INITIATION OF A WATER RESOURCE MANAGEMENT STAGE

The City Manager may order the implementation of a water resource management stage when one or more of the trigger conditions for that stage is met.

- NTMWD has initiated a water resource management stage. (Stages imposed by NTMWD action **must** be initiated by Member Cities and Customers.)
- Water demand is approaching a level that will cause a reduced delivery capacity for all or part of the distribution system.
- Texas State Governor has declared a drought disaster declaration for Collin and/or Dallas County

The following actions will be taken when a water resource management stage is initiated:

- The public will be notified through local media and the supplier's website.
- Wholesale customers and NTMWD will be notified by email that provides details of the reasons for initiation of the water resource management stage.

- If any mandatory provisions of the Plan are activated, the City of Sachse will notify TCEQ and the NTMWD Executive Director within five business days. Instructions to report drought contingency plan water use restrictions to TCEQ is available online at https://www.tceq.texas.gov/drinkingwater/homeland_security/security_pws.

B. TERMINATION OF A WATER RESOURCE MANAGEMENT STAGE

Water resource management stages initiated by NTMWD may be terminated after NTMWD has terminated the stage. For stages initiated by the City Manager, they may order the termination of a water resource management stage when the conditions for termination are met or at their discretion.

The following actions will be taken when a water resource management stage is terminated:

- The public will be notified through local media and the supplier's website.
- Wholesale customers and NTMWD will be notified by email.
- If any mandatory provisions of the Plan that have been activated are terminated, the City of Sachse will notify TCEQ Executive Director and the NTMWD Executive Director within five business days. Instructions to report drought contingency plan water use restrictions to TCEQ is available online at https://www.tceq.texas.gov/drinkingwater/homeland_security/security_pws.

The City Manager may decide not to order the termination of a water resource management stage even though the conditions for termination of the stage are met. Factors which could influence such a decision include, but are not limited to, the time of the year, weather conditions, or the anticipation of potentially changed conditions that warrant the continuation of the water resource management stage. The reason for this decision should be documented.

2.05 PROCEDURE FOR GRANTING VARIANCES TO THE PLAN

The City Manager may grant temporary variances for existing water uses otherwise prohibited under this Plan if one or more of the following conditions are met:

- Failure to grant such a variance would cause an emergency condition adversely affecting health, sanitation, or fire safety for the public or the person or entity requesting the variance.
- Compliance with this Plan cannot be accomplished due to technical or other limitations.
- Alternative methods that achieve the same level of reduction in water use can be implemented.

Variances shall be granted or denied at the discretion of the City Manager. All petitions for variances should be in writing and should include the following information:

- Name and address of the petitioners.
- Purpose of water use.
- Specific provisions from which relief is requested.

- Detailed statement of the adverse effect of the provision from which relief is requested.
- Description of the relief requested.
- Period of time for which the variance is sought.
- Alternative measures that will be taken to reduce water use and the level of water use reduction.
- Other pertinent information.

2.06 PROCEDURES FOR ENFORCING MANDATORY WATER USE RESTRICTIONS

Mandatory water use restrictions may be imposed in Stage 1, Stage 2 and Stage 3. Staff will implement the restrictions in accordance with adoption of the Emergency Management Plan (Plan). **Appendix F** contains a copy of the ordinance adopted regarding this Plan. The document designates responsible officials to implement and enforce the EMP.

As referenced in Article I, Chapter 10, Section 7:

For a first violation of any provision of the water conservation plan and/or the water resource management plan or this article, the city shall issue a letter and provide educational materials on water conservation, including a copy of the relevant provisions of this article to the water user violating the provisions of this article. The city shall give the water user a reasonable time to correct the violation.

For a second violation of any provision of the water conservation plan and/or the water resource management plan or this article, the city shall issue the water user a citation and upon conviction shall be subject to a fine not to exceed the sum of two thousand dollar (\$2,000.00).

The city's current five-tier level conservation rate structure is in effect year-round to encourage ongoing water conservation. Additional rate surcharges may be established when it is required to meet the reduction goal in each respective stage of this article.

2.07 REVIEW AND UPDATE OF WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN

As required by TCEQ rules, the City of Sachse must review their respective EMP every five years. The plan will be updated as appropriate based on new or updated information.

3.00 WATER RESOURCE AND EMERGENCY MANAGEMENT PLAN

Initiation and termination criteria for water management stages include general, demand, supply, and emergency criteria. One of the major indicators of approaching or ongoing drought conditions is NTMWD's combined reservoir storage, defined as storage at Lavon Lake plus storage in Bois d'Arc Lake. Percent storage is determined by dividing the current storage by the total conservation storage when the lakes are full. **Table 1** summarizes the water management stages by triggers based on percent

combined storage and associated demand reduction goals and outdoor watering restrictions. The following sections go into more detail on the three water management stages.

TCEQ requires notification when mandatory restrictions are placed on a customer. NTMWD must notify TCEQ when they impose mandatory restrictions on Member Cities and Customers. Member Cities and Customers must likewise notify TCEQ when they impose mandatory restrictions on their customers (wholesale or retail). Measures that impose mandatory requirements on customers are denoted with “requires notification to TCEQ”.

NTMWD and the utilities must notify TCEQ within five business days if these measures are implemented (<https://www.tceq.texas.gov/response/drought/drought-and-public-water-systems>).

Table 1: Water Management Plan Stages Summary

Drought Stage		April to October	November to March	Demand Reduction Goal	Outdoor Watering Restrictions
		Percent Combined Storage			
Stage 1	Initiation	70%	60%	2%	2X per week (Apr-Oct) 1X per week (Nov-Mar)
	Termination	75%	65%		
Stage 2	Initiation	55%	45%	5%	1X per week (Apr-Oct) 1X every other week (Nov-Mar)
	Termination	70%	60%		
Stage 3	Initiation	30%	20%	30%	No outdoor watering
	Termination	55%	45%		

3.01 WATER RESOURCE MANAGEMENT – STAGE 1

A. INITIATION AND TERMINATION CRITERIA FOR STAGE 1

NTMWD has initiated Stage 1, which may be initiated when one or more of the following criteria is met:

- **General Criteria**
 - The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 1.
 - One or more source(s) is interrupted, unavailable, or limited due to contamination, invasive species, equipment failure or other cause.
 - The water supply system is unable to deliver needed supplies due to the failure or damage of major water system components.
 - Part of the system has a shortage of supply or damage to equipment. (NTMWD may implement measures for only that portion of the system impacted.)

- A portion of the service area is experiencing an extreme weather event or power grid/supply disruptions.
- **Demand Criteria**
 - Water demand has exceeded or is expected to exceed 90% of maximum sustainable production or delivery capacity for an extended period.
- **Supply Criteria**
 - The combined storage in Lavon and Bois d’Arc Lake, as published by the TWDB, is less than:
 - 70% of the combined conservation pool capacity during any of the months of April through October
 - 60% of the combined conservation pool capacity during any of the months of November through March
 - The Sabine River Authority (SRA) has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Stage 1 drought.
 - NTMWD is concerned that Lake Texoma, Jim Chapman Lake, the East Fork Water Reuse Project, Main Stem Pump Station, and/or some other NTMWD water source may be limited in availability within the next six months.

Stage 1 may terminate when one or more of the following criteria is met:

- **General Criteria**
 - The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the termination of Stage 1.
 - The circumstances that caused the initiation of Stage 1 no longer prevail.
- **Supply Criteria**
 - The combined storage in Lavon and Bois d’Arc Lakes, as published by the TWDB, is greater than:
 - 75% of the combined conservation pool capacity during any of the months of April through October
 - 65% of the combined conservation pool capacity during any of the months of November through March

B. GOAL FOR USE REDUCTION UNDER STAGE 1

The goal for water use reduction under Stage 1 is an annual reduction of 2% in the use that would have occurred in the absence of water management measures. Because discretionary water use is highly concentrated in the summer months, savings should be higher than 5% in summer to achieve an annual savings goal of 2%. **If circumstances warrant, the Executive Director can set a goal for greater or less water use reduction.**

C. WATER MANAGEMENT MEASURES AVAILABLE UNDER STAGE 1

The actions listed below are provided as potential measures to reduce water demand. NTMWD may choose to implement any or all of the available restrictions in Stage 1.

- **Requires notification to TCEQ by NTMWD.** Require Member Cities and Customers (including indirect Customers) to initiate Stage 1 restrictions in their respective, independently adopted water resource management plans.
- Continue actions described in the water conservation plan.
- Increase enforcement of landscape watering restrictions from the water conservation plan.
- Initiate engineering studies to evaluate alternative actions that can be implemented if conditions worsen.
- Accelerate public education efforts on ways to reduce water use.
- Halt non-essential NTMWD water use.
- Encourage the public to wait until the current drought or water emergency situation has passed before establishing new landscaping.
- Encourage all users to reduce the frequency of draining and refilling swimming pools.
- **Requires notification to TCEQ by Member Cities and Customers and/or NTMWD.** Initiate a rate surcharge for all water use over a certain level.
- **Requires notification to TCEQ by Member Cities and Customers.** Parks, golf courses, and athletic fields using potable water for landscape watering are required to meet the same reduction goals and measures outlined in this stage. As an exception, golf course greens and tee boxes may be hand watered as needed.

3.02 WATER RESOURCE MANAGEMENT – STAGE 2

A. INITIATION AND TERMINATION CRITERIA FOR STAGE 2

NTMWD has initiated Stage 2, which may be initiated due to one or more of the following criteria is met:

- **General Criteria**
 - The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 2.
 - One or more supply source(s) is interrupted, unavailable, or limited due to contamination, invasive species, equipment failure or other cause.
 - The water supply system is unable to deliver needed supplies due to the failure or damage of major water system components.
 - Part of the system has a shortage of supply or damage to equipment. (NTMWD may implement measures for only that portion of the system impacted.)

- A portion of the service area is experiencing an extreme weather event or power grid/supply disruptions.
- **Demand Criteria**
 - Water demand has exceeded or is expected to exceed 95% of maximum sustainable production or delivery capacity for an extended period.
- **Supply Criteria**
 - The combined storage in Lavon and Bois d’Arc Lake, as published by the TWDB, is less than
 - 55% of the combined conservation pool capacity during any of the months of April through October
 - 45% of the combined conservation pool capacity during any of the months of November through March
 - SRA has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a Stage 2 drought.
 - NTMWD is concerned that Lake Texoma, Jim Chapman Lake, the East Fork Water Reuse Project, the Main Stem Pump Station, and/or some other NTMWD water source may be limited in availability within the next three months.

Stage 2 may terminate when one or more of the following criteria is met:

- **General Criteria**
 - The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the termination of Stage 2.
 - The circumstances that caused the initiation of Stage 2 no longer prevail.
- **Supply Criteria**
 - The combined storage in Lavon and Bois d’Arc Lake, as published by the TWDB, is greater than
 - 70% of the combined conservation pool capacity during any of the months of April through October
 - 60% of the combined conservation pool capacity during any of the months of November through March

B. GOAL FOR USE REDUCTION UNDER STAGE 2

The goal for water use reduction under Stage 2 is an annual reduction of 5% in the use that would have occurred in the absence of water resource management measures. Because discretionary water use is highly concentrated in the summer months, savings should be higher than 5% in summer to achieve an annual savings goal of 5%. **If circumstances warrant, the Executive Director can set a goal for greater or less water use reduction.**

C. WATER MANAGEMENT MEASURES AVAILABLE UNDER STAGE 2

The actions listed below are provided as potential measures to reduce water demand. NTMWD may choose to implement any or all of the available restrictions in Stage 2.

- Continue or initiate any actions available under the water conservation plan and Stage 1.
- Implement viable alternative water supply strategies.
- **Requires notification to TCEQ by NTMWD.** Require Member Cities and Customers (including indirect Customers) to initiate Stage 2 restrictions in their respective, independently adopted water resource management plans.
- **Requires notification to TCEQ by NTMWD and/or Member Cities and Customers.** Limit landscape watering with sprinklers or irrigation systems at each service address to once per week on designated days between April 1 and October 31. Limit landscape watering with sprinklers or irrigation systems at each service address to once every other week on designated days between November 1 and March 31. Exceptions are as follows:
 - New construction may be watered as necessary for 30 days from the installation of new landscape features.
 - Foundation watering (within 2 feet), watering of new plantings (first year) of shrubs, and watering of trees (within a 10-foot radius of its trunk) for up to two hours on any day by a hand-held hose, a soaker hose, or a dedicated zone using a drip irrigation system, provided no runoff occurs.
 - Athletic fields may be watered twice per week.
 - Locations using alternative sources of water supply only for irrigation may irrigate without day-of-the-week restrictions provided proper signage is employed to notify the public of the alternative water source(s) being used. However, irrigation using alternative sources of supply is subject to all other restrictions applicable to this stage. If the alternative supply source is a well, proper proof of well registration with your local water supplier (e.g., city, water supply corporation) is required. Other sources of water supply may not include imported treated water.
 - An exemption is for drip irrigation systems from the designated outdoor water use day limited to no more than one day per week. Drip irrigation systems are, however, subject to all other restrictions applicable under this stage.
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit overseeding, sodding, sprigging, broadcasting or plugging with or watering, except for golf courses and athletic fields.
- **Requires notification to TCEQ by NTMWD.** Institute a mandated reduction in water deliveries to all Member Cities and Customers. Such a reduction will be distributed as required by Texas Water Code Section 11.039 (**Appendix E**).
- **Requires notification to TCEQ by Member Cities and Customers and/or NTMWD.** Initiate a rate surcharge for all water use over a certain level.

- **Requires notification to TCEQ by Member Cities and Customers.** Parks and golf courses using potable water for landscape watering are required to meet the same reduction goals and measures outlined in this stage. As an exception, golf course greens and tee boxes may be hand watered as needed.

3.03 WATER RESOURCE MANAGEMENT – STAGE 3

A. INITIATION AND TERMINATION CRITERIA FOR STAGE 3

NTMWD has initiated Stage 3, which may be initiated due to one or more of the following criteria is met:

- **General Criteria**
 - The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the declaration of Stage 3.
 - One or more supply source(s) is interrupted, unavailable, or limited due to contamination, invasive species, equipment failure, or other cause.
 - The water supply system is unable to deliver needed supplies due to the failure or damage of major water system components.
 - Part of the system has a shortage of supply or damage to equipment. (NTMWD may implement measures for only that portion of the system impacted.)
 - A portion of the service area is experiencing an extreme weather event or power grid/supply disruptions.
- **Demand Criteria**
 - Water demand has exceeded or is expected to exceed maximum sustainable production or delivery capacity for an extended period.
- **Supply Criteria**
 - The combined storage in Lavon and Bois d’Arc Lake, as published by the TWDB, is less than
 - 30% of the combined conservation pool capacity during any of the months of April through October
 - 20% of the combined conservation pool capacity during any of the months of November through March
- SRA has indicated that its Upper Basin water supplies used by NTMWD (Lake Tawakoni and/or Lake Fork) are in a drought and have significantly reduced supplies available to NTMWD.
- The supply from Lake Texoma, Jim Chapman Lake, the East Fork Water Reuse Project, the Main Stem Pump Station, and/or some other NTMWD water source has become limited in availability.

Stage 3 may terminate when one or more of the following criteria is met:

- **General Criteria**

- The Executive Director, with the concurrence of the NTMWD Board of Directors, finds that conditions warrant the termination of Stage 3.
- Other circumstances that caused the initiation of Stage 3 no longer prevail.
- **Supply Criteria**
 - The combined storage in Lavon and Bois d’Arc Lake, as published by the TWDB, is greater than:
 - 55% of the combined conservation pool capacity during any of the months of April through October
 - 45% of the combined conservation pool capacity during any of the months of November through March

B. GOAL FOR USE REDUCTION UNDER STAGE 3

The goal for water use reduction under Stage 3 is an annual reduction of 30% in the use that would have occurred in the absence of water resource management measures, or the goal for water use reduction is whatever reduction is necessary. Because discretionary water use is highly concentrated in the summer months, savings should be higher than 30% in summer to achieve an annual savings goal of 30%. **If circumstances warrant, the Executive Director can set a goal for greater or less water use reduction.**

C. WATER MANAGEMENT MEASURES AVAILABLE UNDER STAGE 3

The actions listed below are provided as potential measures to reduce water demand. NTMWD may choose to implement any or all of the available restrictions in Stage 3.

- Continue or initiate any actions available under the water conservation plan and Stages 1 and 2.
- Implement viable alternative water supply strategies.
- **Requires notification to TCEQ by NTMWD.** Require Member Cities and Customers (including indirect Customers) to initiate Stage 3 restrictions in their respective, independently adopted water resource management plans.
- **Requires notification to TCEQ by Member Cities and Customers.** Initiate mandatory water use restrictions as follows:
 - Hosing and washing of paved areas, buildings, structures, windows or other surfaces is prohibited except by variance and performed by a professional service using high efficiency equipment.
 - Prohibit operation of ornamental fountains or ponds that use potable water except where supporting aquatic life.
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit new sod, overseeding, sodding, sprigging, broadcasting or plugging with or watering.
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit the use of potable water for the irrigation of new landscape.

- **Requires notification to TCEQ by NTMWD and/or Member Cities and Customers.** Prohibit all commercial and residential landscape watering, except foundations (within 2 feet) and trees (within a 10-foot radius of its trunk) may be watered for two hours one day per week with a hand-held hose, a soaker hose, or a dedicated zone using a drip irrigation system provided no runoff occurs. Drip irrigation systems are not exempt from this requirement.
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit washing of vehicles except at a commercial vehicle wash facility.
- **Requires notification to TCEQ by Member Cities and Customers.** Landscape watering of parks, golf courses, and athletic fields with potable water is prohibited. As an exception, golf course greens and tee boxes may be hand watered as needed. Variances may be granted by the water provider under special circumstances.
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit the filling, draining, and/or refilling of existing swimming pools, wading pools, Jacuzzi and hot tubs except to maintain structural integrity, proper operation and maintenance or to alleviate a public safety risk. Existing pools may add water to replace losses from normal use and evaporation. Permitting of new swimming pools, wading pools, Jacuzzi and hot tubs is prohibited.
- **Requires notification to TCEQ by Member Cities and Customers.** Prohibit the operation of interactive water features such as water sprays, dancing water jets, waterfalls, dumping buckets, shooting water cannons, inflatable pools, temporary splash toys or pools, slip-n-slides, or splash pads that are maintained for recreation.
- **Requires notification to TCEQ by Member Cities and Customers.** Require all commercial water users to reduce water use by a set percentage.
- **Requires notification to TCEQ by NTMWD.** Institute a mandated reduction in deliveries to all Member Cities and Customers. Such a reduction will be distributed as required by Texas Water Code Section 11.039.
- **Requires notification to TCEQ by NTMWD and/or Member Cities and Customers.** Initiate a rate surcharge over normal rates for all water use or for water use over a certain level

Appendix A

List of References

The following appendix contains a list of references used throughout the plans.

APPENDIX A

LIST OF REFERENCES

1. Texas Commission on Environmental Quality Water Conservation Implementation Report.
<https://www.tceq.texas.gov/assets/public/permitting/forms/20645.pdf>
2. Title 30 of the Texas Administrative Code, Part 1, Chapter 288, Subchapter A, Rules 288.1 and 288.5, and Subchapter B, Rule 288.22, downloaded from
[http://texreg.sos.state.tx.us/public/readtac\\$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=288](http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=30&pt=1&ch=288),
April 2023.
3. Water Conservation Implementation Task Force: “Texas Water Development Board Report 362, Water Conservation Best Management Practices Guide,” prepared for the Texas Water Development Board, Austin, November 2004.
4. Texas Water Development Board, Texas Commission on Environmental Quality, Water Conservation Advisory Council: Guidance and Methodology for Reporting on Water Conservation and Water Use, December 2012
5. Freese and Nichols, Inc.: Model Water Conservation Plan for NTMWD Members Cities and Customers, prepared for the North Texas Municipal Water District, Fort Worth, January 2019.
6. Freese and Nichols, Inc.: Model Water Resource and Emergency Management Plan for NTMWD Members Cities and Customers, prepared for the North Texas Municipal Water District, Fort Worth, January 2019.
7. Freese and Nichols Inc, Alan Plummer Associates, Inc., CP & Y Inc., Cooksey Communications.
“2021 Region C Water Plan”

Appendix B

Texas Administrative Code Title 30

Chapter 288

The following appendix contains the Texas Administrative Code that regulates both water conservation and drought contingency plans. Prior to the code, a summary is given that outlines where each requirement is fulfilled within the plans

APPENDIX B

TEXAS ADMINISTRATIVE CODE TITLE 30 CHAPTER 288

TCEQ rules governing development of water conservation plans are contained in Title 30, Chapter 288, Subchapter A of the Texas Administrative Code, which is included in this Appendix for reference.

The water conservation plan elements required by TCEQ water conservation rules that are covered in this water conservation plan are listed below.

Minimum Conservation Plan Requirements for Public Water Suppliers

- 288.2(a)(1)(A) – Utility Profile – Section 2
- 288.2(a)(1)(B) – Record Management System – Section 4
- 288.2(a)(1)(C) – Specific, Quantified Goals – Section 3
- 288.2(a)(1)(D) – Accurate Metering – Section 4
- 288.2(a)(1)(E) – Universal Metering – Section 4
- 288.2(a)(1)(F) – Determination and Control of Water Loss – Section 4
- 288.2(a)(1)(G) – Public Education and Information Program – Section 8
- 288.2(a)(1)(H) – Non-Promotional Water Rate Structure – Section 8
- 288.2(a)(1)(I) – Reservoir System Operation Plan – Section 6
- 288.2(a)(1)(J) – Means of Implementation and Enforcement – Section 7
- 288.2(a)(1)(K) – Coordination with Regional Water Planning Group – Section 7
- 288.2(c) – Review and Update of Plan – Section 7

Additional Requirements for Public Water Suppliers (Population over 5,000)

- 288.2(a)(2)(A) – Leak Detection, Repair, and Water Loss Accounting – Section 4
- 288.2(a)(2)(B) – Requirement for Water Conservation Plans by Wholesale Customers – Section 5
- 288.5(1)(F) – Requirement for Water Conservation Plans by Wholesale Customers – Section 5
- 288.5(1)(H) – Means of Implementation and Enforcement – Section 7
- 288.5(1)(I) – Documentation of Coordination with Regional Water Planning Group – Section 7
- 288.5(3) – Review and Update of Plan – Section 7

TITLE 30**ENVIRONMENTAL QUALITY****PART 1****TEXAS COMMISSION ON ENVIRONMENTAL QUALITY****CHAPTER 288****WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS,
GUIDELINES AND REQUIREMENTS****SUBCHAPTER A****WATER CONSERVATION PLANS****RULE §288.1****Definitions**

The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

(1) Agricultural or Agriculture--Any of the following activities:

(A) cultivating the soil to produce crops for human food, animal feed, or planting seed or for the production of fibers;

(B) the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or non-soil media by a nursery grower;

(C) raising, feeding, or keeping animals for breeding purposes or for the production of food or fiber, leather, pelts, or other tangible products having a commercial value;

(D) raising or keeping equine animals;

(E) wildlife management; and

(F) planting cover crops, including cover crops cultivated for transplantation, or leaving land idle for the purpose of participating in any governmental program or normal crop or livestock rotation procedure.

(2) Agricultural use--Any use or activity involving agriculture, including irrigation.

(3) Best management practices--Voluntary efficiency measures that save a quantifiable amount of water, either directly or indirectly, and that can be implemented within a specific time frame.

(4) 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 water supply is made available for future or alternative uses.

(5) Commercial use--The use of water by a place of business, such as a hotel, restaurant, or office building. This does not include multi-family residences or agricultural, industrial, or institutional users.

(6) Drought contingency plan--A strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies. A drought contingency plan may be a separate document identified as such or may be contained within another water management document(s).

(7) Industrial use--The use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, and the development of power by means other than hydroelectric, but does not include agricultural use.

(8) Institutional use--The use of water by an establishment dedicated to public service, such as a school, university, church, hospital, nursing home, prison or government facility. All facilities dedicated to public service are considered institutional regardless of ownership.

(9) Irrigation--The agricultural use of water for the irrigation of crops, trees, and pastureland, including, but not limited to, golf courses and parks which do not receive water from a public water supplier.

(10) Irrigation water use efficiency--The percentage of that amount of irrigation water which is beneficially used by agriculture crops or other vegetation relative to the amount of water diverted from the source(s) of supply. Beneficial uses of water for irrigation purposes include, but are not limited to, evapotranspiration needs for vegetative maintenance and growth, salinity management, and leaching requirements associated with irrigation.

(11) Mining use--The use of water for mining processes including hydraulic use, drilling, washing sand and gravel, and oil field re-pressuring.

(12) Municipal use--The use of potable water provided by a public water supplier as well as the use of sewage effluent for residential, commercial, industrial, agricultural, institutional, and wholesale uses.

(13) Nursery grower--A person engaged in the practice of floriculture, viticulture, silviculture, and horticulture, including the cultivation of plants in containers or non-soil media, who grows more than 50% of the products that the person either sells or leases, regardless of the variety sold, leased, or grown. For the purpose of this definition, grow means the actual cultivation or propagation of the product beyond the mere holding or maintaining of the item prior to sale or lease, and typically includes activities associated with the production or multiplying of stock such as the development of new plants from cuttings, grafts, plugs, or seedlings.

(14) Pollution--The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

(15) Public water supplier--An individual or entity that supplies water to the public for human consumption.

(16) Regional water planning group--A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code §16.053.

(17) Residential gallons per capita per day--The total gallons sold for residential use by a public water supplier divided by the residential population served and then divided by the number of days in the year.

(18) Residential use--The use of water that is billed to single and multi-family residences, which applies to indoor and outdoor uses.

(19) Retail public water supplier--An individual or entity that for compensation supplies water to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants when that water is not resold to or used by others.

(20) Reuse--The authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before that water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

(21) Total use--The volume of raw or potable water provided by a public water supplier to billed customer sectors or nonrevenue uses and the volume lost during conveyance, treatment, or transmission of that water.

(22) Total gallons per capita per day (GPCD)--The total amount of water diverted and/or pumped for potable use divided by the total permanent population divided by the days of the year. Diversion volumes of reuse as defined in this chapter shall be credited against total diversion volumes for the purposes of calculating GPCD for targets and goals.

(23) Water conservation coordinator--The person designated by a retail public water supplier that is responsible for implementing a water conservation plan.

(24) Water conservation plan--A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s).

(25) Wholesale public water supplier--An individual or entity that for compensation supplies water to another for resale to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants as an incident of that employee service or tenancy when that water is not resold to or used by others, or an individual or entity that conveys water to another individual or entity, but does not own the right to the water which is conveyed, whether or not for a delivery fee.

(26) Wholesale use--Water sold from one entity or public water supplier to other retail water purveyors for resale to individual customers.

Source Note: The provisions of this §288.1 adopted to be effective May 3, 1993, 18 TexReg 2558; amended to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective August 15, 2002, 27 TexReg 7146; amended to be effective October 7, 2004, 29 TexReg 9384; amended to be effective January 10, 2008, 33 TexReg 193; amended to be effective December 6, 2012, 37 TexReg 9515; amended to be effective August 16, 2018, 43 TexReg 5218

<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<u>CHAPTER 288</u>	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
<u>SUBCHAPTER A</u>	WATER CONSERVATION PLANS
RULE §288.2	Water Conservation Plans for Municipal Uses by Public Water Suppliers

(a) A water conservation plan for municipal water use by public water suppliers must provide information in response to the following. If the plan does not provide information for each requirement, the public water supplier shall include in the plan an explanation of why the requirement is not applicable.

(1) Minimum requirements. All water conservation plans for municipal uses by public water suppliers must include the following elements:

(A) a utility profile in accordance with the Texas Water Use Methodology, including, but not limited to, information regarding population and customer data, water use data (including total gallons per capita per day (GPCD) and residential GPCD), water supply system data, and wastewater system data;

(B) a record management system which allows for the classification of water sales and uses into the most detailed level of water use data currently available to it, including, if possible, the sectors listed in clauses (i) - (vi) of this subparagraph. Any new billing system purchased by a public water supplier must be capable of reporting detailed water use data as described in clauses (i) - (vi) of this subparagraph:

- (i) residential;
 - (I) single family;
 - (II) multi-family;
- (ii) commercial;
- (iii) institutional;
- (iv) industrial;
- (v) agricultural; and,
- (vi) wholesale.

(C) specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use in total GPCD and residential GPCD. The goals established by a public water supplier under this subparagraph are not enforceable;

(D) metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply;

(E) a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement;

(F) measures to determine and control water loss (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections; abandoned services; etc.);

(G) a program of continuing public education and information regarding water conservation;

(H) a water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water;

(I) a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin in order to optimize available water supplies; and

(J) a means of implementation and enforcement which shall be evidenced by:

(i) a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the water supplier; and

(ii) a description of the authority by which the water supplier will implement and enforce the conservation plan; and

(K) documentation of coordination with the regional water planning groups for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

(2) Additional content requirements. Water conservation plans for municipal uses by public drinking water suppliers serving a current population of 5,000 or more and/or a projected population of 5,000 or more within the next ten years subsequent to the effective date of the plan must include the following elements:

(A) a program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system;

(B) a requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan (by either ordinance, resolution, or tariff), and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the

resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions of this chapter.

(3) Additional conservation strategies. Any combination of the following strategies shall be selected by the water supplier, in addition to the minimum requirements in paragraphs (1) and (2) of this subsection, if they are necessary to achieve the stated water conservation goals of the plan. The commission may require that any of the following strategies be implemented by the water supplier if the commission determines that the strategy is necessary to achieve the goals of the water conservation plan:

(A) conservation-oriented water rates and water rate structures such as uniform or increasing block rate schedules, and/or seasonal rates, but not flat rate or decreasing block rates;

(B) adoption of ordinances, plumbing codes, and/or rules requiring water-conserving plumbing fixtures to be installed in new structures and existing structures undergoing substantial modification or addition; (C) a program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures;

(D) reuse and/or recycling of wastewater and/or graywater;

(E) a program for pressure control and/or reduction in the distribution system and/or for customer connections;

(F) a program and/or ordinance(s) for landscape water management;

(G) a method for monitoring the effectiveness and efficiency of the water conservation plan; and

(H) any other water conservation practice, method, or technique which the water supplier shows to be appropriate for achieving the stated goal or goals of the water conservation plan.

(b) A water conservation plan prepared in accordance with 31 TAC §363.15 (relating to Required Water Conservation Plan) of the Texas Water Development Board and substantially meeting the requirements of this section and other applicable commission rules may be submitted to meet application requirements in accordance with a memorandum of understanding between the commission and the Texas Water Development Board.

(c) A public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for municipal use shall review and update the next revision of its water conservation plan every five years to coincide with the regional water planning group.

Source Note: The provisions of this §288.2 adopted to be effective May 3, 1993, 18 TexReg 2558; amended to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384; amended to be effective December 6, 2012, 37 TexReg 9515

APPENDIX B

TEXAS ADMINISTRATIVE CODE TITLE 30 CHAPTER 288

TCEQ rules governing development of water conservation plans are contained in Title 30, Chapter 288, Subchapter A of the Texas Administrative Code, which is included in this Appendix for reference.

The water conservation plan elements required by TCEQ water conservation rules that are covered in this drought contingency plan are listed below.

Minimum Drought Contingency Plan Requirements for Public Water Suppliers

- **288.20(a)(1)(A)** – Provisions to Inform Public and Provide Opportunity for Public Input - Section 2
- **288.20(a)(1)(B)** – Program for Continuing Public Education and Information – Section 2
- **288.20(a)(1)(C)** – Coordination with Regional Water Planning Groups – Section 2
- **288.20(a)(1)(D)** – Description of Information to Be Monitored and Criteria for the Initiation and Termination of Water Resource Management Stages – Sections 2
- **288.20(a)(1)(E)** – Stages for Implementation of Measures in Response to Situations – Section 3
- **288.20(a)(1)(F)** – Specific, Quantified Targets for Water Use Reductions During Water Shortages – Section 3
- **288.20(a)(1)(G)** – Specific Water Supply or Water Demand Measures to Be Implemented at Each Stage of the Plan – Section 3
- **288.20(a)(1)(H)** – Procedures for Initiation and Termination of Drought Contingency and Water Emergency Response Stages – Section 2
- **288.20(a)(1)(I)** – Description of Procedures to Be Followed for Granting Variances to the Plan – Section 2
- **288.20(a)(1)(J)** – Procedures for Enforcement of Mandatory Water Use Restrictions – Section 2
- **288.20(b)** – TCEQ Notification of Implementation of Mandatory Provisions – Sections 2 and 3
- **288.20(c)** – Review of Drought Contingency and Water Emergency Response Plan Every Five (5) Years – Section 2

<u>TITLE 30</u>	ENVIRONMENTAL QUALITY
<u>PART 1</u>	TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
<u>CHAPTER 288</u>	WATER CONSERVATION PLANS, DROUGHT CONTINGENCY PLANS, GUIDELINES AND REQUIREMENTS
<u>SUBCHAPTER B</u>	DROUGHT CONTINGENCY PLANS
RULE §288.20	Drought Contingency Plans for Municipal Uses by Public Water Suppliers

(a) A drought contingency plan for a retail public water supplier, where applicable, must include the following minimum elements.

(1) Minimum requirements. Drought contingency plans must include the following minimum elements.

(A) Preparation of the plan shall include provisions to actively inform the public and affirmatively provide opportunity for public input. Such acts may include, but are not limited to, having a public meeting at a time and location convenient to the public and providing written notice to the public concerning the proposed plan and meeting.

(B) Provisions shall be made for a program of continuing public education and information regarding the drought contingency plan.

(C) The drought contingency plan must document coordination with the regional water planning groups for the service area of the retail public water supplier to ensure consistency with the appropriate approved regional water plans.

(D) The drought contingency plan must include a description of the information to be monitored by the water supplier, and specific criteria for the initiation and termination of drought response stages, accompanied by an explanation of the rationale or basis for such triggering criteria.

(E) The drought contingency plan must include drought or emergency response stages providing for the implementation of measures in response to at least the following situations:

(i) reduction in available water supply up to a repeat of the drought of record;

(ii) water production or distribution system limitations;

(iii) supply source contamination; or

(iv) system outage due to the failure or damage of major water system components (e.g., pumps).

(F) The drought contingency plan must include specific, quantified targets for water use reductions to be achieved during periods of water shortage and drought. The entity preparing the plan shall establish the targets. The goals established by the entity under this subparagraph are not enforceable.

(G) The drought contingency plan must include the specific water supply or water demand management measures to be implemented during each stage of the plan including, but not limited to, the following:

(i) curtailment of non-essential water uses; and

(ii) utilization of alternative water sources and/or alternative delivery mechanisms with the prior approval of the executive director as appropriate (e.g., interconnection with another water system, temporary use of a non-municipal water supply, use of reclaimed water for non-potable purposes, etc.).

(H) The drought contingency plan must include the procedures to be followed for the initiation or termination of each drought response stage, including procedures for notification of the public.

(I) The drought contingency plan must include procedures for granting variances to the plan.

(J) The drought contingency plan must include procedures for the enforcement of mandatory water use restrictions, including specification of penalties (e.g., fines, water rate surcharges, discontinuation of service) for violations of such restrictions.

(2) Privately-owned water utilities. Privately-owned water utilities shall prepare a drought contingency plan in accordance with this section and incorporate such plan into their tariff.

(3) Wholesale water customers. Any water supplier that receives all or a portion of its water supply from another water supplier shall consult with that supplier and shall include in the drought contingency plan appropriate provisions for responding to reductions in that water supply.

(b) A wholesale or retail water supplier shall notify the executive director within five business days of the implementation of any mandatory provisions of the drought contingency plan.

(c) The retail public water supplier shall review and update, as appropriate, the drought contingency plan, at least every five years, based on new or updated information, such as the adoption or revision of the regional water plan.

Source Note: The provisions of this §288.20 adopted to be effective February 21, 1999, 24 TexReg 949; amended to be effective April 27, 2000, 25 TexReg 3544; amended to be effective October 7, 2004, 29 TexReg 9384

Appendix C

TCEQ Water Utility Profile

The following appendix contains the form TCEQ-10218 and/or TCEQ-20162.

Appendix D

NTMWD Member City and Customer Annual Water Conservation Report

The following appendix contains a blank copy of the NTMWD Member City and Customer Annual Water Conservation Report. This is updated and reviewed by NTMWD on an annual basis.

Appendix E

Letters to Regional Water Planning Group and NTMWD

4/15/2024

Region C Water Planning Group
c/o Trinity River Authority
P.O. Box 60
Arlington, TX 76004

Dear Chair:

Enclosed please find a copy of the Water Conservation and Water Resource and Emergency Management Plan for City of Sachse. I am submitting a copy of this plan to the Region C Water Planning Group in accordance with the Texas Water Development Board and Texas Commission on Environmental Quality rules. The plans were adopted on 4/15/2024.

Sincerely,

Corey Nesbit, PE, CFM
Director of Public Works and CIP
City of Sachse

Appendix F

Adoption of Plans

**Municipal Ordinance
Adopting Water Conservation Plan**

Ordinance No. [Enter Ordinance Number]

AN ORDINANCE ADOPTING A WATER CONSERVATION PLAN FOR THE CITY OF SACHSE TO PROMOTE RESPONSIBLE USE OF WATER AND TO PROVIDE FOR PENALTIES AND/OR THE DISCONNECTION OF WATER SERVICE FOR NONCOMPLIANCE WITH THE PROVISIONS OF THE WATER CONSERVATION PLAN.

WHEREAS, the City of Sachse, Texas (the “City”), recognizes that the amount of water available to its water customers is limited; and

WHEREAS, the City recognizes that due to natural limitations, drought conditions, system failures and other acts of God which may occur, the City cannot guarantee an uninterrupted water supply for all purposes at all times; and

WHEREAS, the Water Code and the regulations of the Texas Commission on Environmental Quality (the “Commission”) require that the City adopt a Water Conservation Plan; and

WHEREAS, the City has determined an urgent need in the best interest of the public to adopt a Water Conservation Plan; and

WHEREAS, pursuant to Chapter 54 of the Local Government Code, the City is authorized to adopt such Ordinances necessary to preserve and conserve its water resources; and

WHEREAS, the City Council of the City of Sachse desires to adopt the North Texas Municipal Water District (the “NTMWD”) Model Water Conservation Plan as official City policy for the conservation of water.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF SACHSE THAT:

Section 1. The City Council hereby approves and adopts the NTMWD Model Water Conservation Plan (the “Plan”), attached hereto as Addendum A, as if recited verbatim herein. The City commits to implement the requirements and procedures set forth in the adopted Plan.

Section 2. Any customer, defined pursuant to 30 Tex. Admin. Code Chapter 291, failing to comply with the provisions of the Plan shall be subject to a fine of up to two thousand dollars (\$2,000.00) and/or discontinuance of water service by the City. Proof of a culpable mental state is not required for a conviction of an offense under this section. Each day a customer fails to comply with the Plan is a separate violation. The City's authority to seek injunctive or other civil relief available under the law is not limited by this section.

Section 3. The City Council does hereby find and declare that sufficient written notice of the date, hour, place and subject of the meeting adopting this Ordinance was posted at a designated place convenient to the public for the time required by law preceding the meeting, that such place of posting was readily accessible at all times to the general public, and that all of the foregoing was done as required by law at all times during which this Ordinance and the subject matter thereof has been discussed, considered

and formally acted upon. The City Council further ratifies, approves and confirms such written notice and the posting thereof.

Section 4. Should any paragraph, sentence, clause, phrase or word of this Ordinance be declared unconstitutional or invalid for any reason, the remainder of this Ordinance shall not be affected.

Section 5. The City Manager or his designee is hereby directed to file a copy of the Plan and this Ordinance with the Commission in accordance with Title 30, Chapter 288 of the Texas Administrative Code.

Section 6. The City Secretary is hereby authorized and directed to cause publication of the descriptive caption of this ordinance as an alternative method of publication provided by law.

Section 7. Ordinance No. 3933 and 3946, adopted on 2019, or any previous versions are hereby repealed.

Passed by the City Council on this 15th day of April, 2024.

Mayor

Attest:

City Secretary

[NUMBER]
[Entity Name]
