

ORDINANCE NO. 09-03-14

AN ORDINANCE OF THE CITY OF ENNIS, TEXAS, ESTABLISHING A WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN; ESTABLISHING GOALS TO REDUCE WATER CONSUMPTION; ESTABLISHING CRITERIA FOR THE INITIATION AND TERMINATION OF DROUGHT RESPONSE STAGES; ESTABLISHING RESTRICTIONS ON CERTAIN WATER USES, ESTABLISHING PENALTIES FOR THE VIOLATION OF AND PROVISIONS FOR ENFORCEMENT OF THESE RESTRICTIONS; ESTABLISHING PROCEDURES FOR GRANTING VARIANCES; AND PROVIDING SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, the City of Ennis, Texas recognizes that the amount of water available to the City and its water utility customers is limited and subject to depletion;

WHEREAS, the City recognizes that natural limitations due to drought conditions and other acts of God cannot guarantee an uninterrupted water supply for all purposes;

WHEREAS, Section 13.146 and of the Texas Water Code, and Title 30, Chapter 288 of the Texas Administrative Code, and applicable rules of the Texas Natural Resource Conservation Commission require all public water supply systems in Texas to prepare a water conservation plan and a drought contingency plan; and

WHEREAS, as authorized under law, and in the best interests of the citizens of Ennis, Texas, the City Commission deem it expedient and necessary to establish certain rules and policies for the orderly and efficient management of limited water supplies during drought and other water supply emergencies;

NOW THEREFORE, BE IT ORDAINED BY THE CITY OF ENNIS, TEXAS:

Section I: Water Conservation Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and/or to protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, and with an understanding that water is a finite resource that requires careful and proactive management, the City of Ennis adopts the following water conservation plan.

It is the intent of The City of Ennis to set conservation goals using this plan that are designed to achieve conservation savings through common sense measures, without burdening our customer with needless costs, while still meeting the requirements of the Texas Administrative Code and generating enough water savings to extend the life of the existing supply.

The objectives of this water conservation plan are as follows:

- To reduce water consumption from the levels that would prevail without conservation efforts.
- To reduce the loss and waste of water.
- To improve efficiency in the use of water.

Section II: Utility Profile

The City of Ennis Utility Profile is found under Appendix A to this Water Conservation Plan.

Section III: Water Savings Targets and Goals and Implementation

Due to the fact that our 5 year average of 130 gallons per capita per day (GPCD) usage is 17% below the state average for cities our size, our goal is to maintain our current 130 GPCD usage through 2015 and continue to remain at 130 GPCD for the period from 2015 through 2020. Goals for the water loss program over the same period are 130 GPCD as well.

Section IV: Tracking and Plan Review

Annually as this plan is reviewed Best Management Practices will be evaluated and incorporated into this plan if it is determined that additional methods of conservation are required maintain stated GPCD goals.

Section V: Metering

Master meters are used at the treatment facility to measure and account for the amount of raw water diverted from the source of supply as well as finished water and these meters are calibrated on an annual basis.

The City of Ennis meters 100% of the connections to the distribution system. Meters range in size from 3/4" to 8". All meters are designed to provide accurate flows to within +/- 5%.

The City has a meter change out program that is funded each year in the Operating Budget under Capital Improvements. The program provides for the annual replacement of 8% of the residential meters in the system. Meters that are inaccurate, have discrepancies in readings or have been determined to be inaccurate or meters that have registered a set usage determined by the City are replaced with new meters. This system replaces residential meters on a 14 year cycle.

Section VI: Unaccounted-For Water

The City of Ennis produces more water than it sells and the difference between production and sales can be attributed to the following, flushing of water mains, system leaks, fire fighting, illegal connections, unauthorized water use, and uses in the treatment processes.

The City of Ennis annually audits the differences between water treated and water sold. The unaccounted for water percentages in the City are relatively low, typically less than 18% and we will perform the due diligence required to reduce these losses.

Section VII: Leak Detection and Repair

A continuous leak detection, location and repair program is an important part of the water conservation plan. Annual water accounting and audit is a part of this program. The causes of unaccounted for water, once located are immediately corrected. City employees regularly check for leaks while reading meters, repairing streets, and driving in the City performing other maintenance activities. Leaks are also often detected by customers and any reported leaks are repaired in a timely manner.

In addition to customer and field operations visual leakage reports the City also monitors for leaks in the water storage and delivery system components. The City utilizes acoustic leak noise detectors to target suspected leaks and define leak locations.

Section VIII: Public Education and Information

The most readily available and lowest cost method of promoting water conservation is to inform the water user about ways to save water inside homes and other buildings, in landscaping and lawn uses and in recreational uses.

The City of Ennis as part of this plan will increase its efforts to educate the public regarding water conservation by posting water conservation material on the City website and links to conservation information. Materials available from the, Texas Water Development Board and other like associations will be made available when appropriate to the City's water utility customers through handouts and other sources. New water customers will be informed of the water conservation plan and be provided literature about water conservation as appropriate. The City also makes speakers available to speak at public functions, club meetings, and schools upon request.

Section IX: Water Rate Structure

The City of Ennis currently uses uniform water rate structures. The City reviews rate structures annually to improve their effect on water conservation and to manage cost of service more effectively.

Residential Water Rates

Minimum Charge \$21.50
All over 1,000 gallons \$2.85 per 1,000 gallons

Commercial Water Rates

Minimum Charge \$21.50
All over 1,000 gallons \$2.85 per 1,000 gallons

Fire Connection \$50.00 per unit per year

Section X: Implementation and Enforcement

The City will implement all actions described in this Water Conservation Plan and the City Manager or his designee will act as the administrator of the water conservation program. The administrator will oversee the execution and implementation of all elements of the program. The administrator will also be responsible to oversee the keeping of adequate records for programs verification. The performance of this plan will be reviewed annually, and goals will be reviewed each year following that review.

Implementation and enforcement of the City's Water Conservation Plan is by an ordinance adopted by the Ennis City Commission.

Section XI: Regional Water Planning Groups

The service area of the City of Ennis is located within Region C and a letter documenting that a copy of the Water Conservation Plan has been sent to the Chair of the Region C Water Planning Group is attached.

Section XII: Record Management System

The City has an effective record management system in place with its existing billing system and the annual statistical report. Each year the City's records, including water sales, delivery, and losses are audited. In addition, flow records and reports are routinely audited by city staff.

Section XIII: Water-Conserving Plumbing Fixtures

The City has adopted the 2003 International Plumbing Code which includes and complies with the U.S. Energy Policy Act of 1992 (Public Law 102-486, 106 Stat. 2776, 102D Congress, Oct. 24, 1992), which includes requirements for maximum water use allowed for toilets, urinals, showerheads, and faucets.

Section XIV: Landscape Water Management

In order to reduce the demand placed on a water system by landscape watering, the City may consider methods that either encourage by education and information, or require by code or ordinance, water conserving landscaping by residential customers and commercial establishments engaged in the sale or installation of landscape plants or watering equipment.

The City of Ennis Parks Department practices water conservation by planting native vegetation, using drip irrigation systems, promptly repairing broken or malfunctioning sprinkler heads, and using water cycle timers to prevent waste and over watering.

The City will evaluate a citywide landscape ordinance and review its water use efficiency potential. This ordinance could include incentives for using native and adapted flora which require less water. The City may also consider an ordinance to promote rain, break, and freeze sensors on new irrigation systems.

Section XV: Recycling and Reuse

Because recycling and reuse may be used to increase water supplies in the utility service area, the City, or utility should evaluate these methods. Reuse can be especially important where the use of treated effluent from an industry or a municipal system replaces an existing use that currently requires fresh water from the City or utility supply. Recycling of in house process, or cooling water can reduce the amount of fresh water required by many industrial operations. Currently, the Oak Grove Wastewater Treatment Plant reuses the wastewater effluent from the plant in its maintenance operations as well as lawn watering around the treatment plant site and an average of approximately 900,000 gallons of effluent per day is used in the cooling processes at the Tractebel Power Plant.

Section XVI: Wholesale Water Supply

Each of the City's wholesale customers will be requested to develop and implement a water conservation plan at least as stringent as the City's plan and that meets the applicable requirements of the Texas Administrative Code. The City has sent a copy of its Water Conservation to each of its wholesale customers to aid with the development of their plans.

Section XVII: Drought Contingency Declaration of Policy, Purpose, and Intent

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

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

The City of Ennis hereby adopts the following regulations and restrictions on the delivery and consumption of water by ordinance.

Section XVIII Public Information and Input

Wholesale and retail water customers in the City of Ennis will be informed of this plan through several means of communication, including local television, City website, and newspaper. The public will also be invited and encouraged to participate in the plan during public meetings along with public hearings associated with the accompanying ordinance.

Section XIX: Public Education

The City of Ennis will periodically provide the public with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by the following means:

1. The Plan will be available at the Water Department offices in City Hall and at the Public Works Offices.
2. The Plan will be available on-line at the City of Ennis website.
3. The City will notify local organizations, schools, and civic groups that staff are available to make presentations about the Plan.
4. The City may place information in customers' water bills.

Section XX: Coordination with Regional Water Planning Groups

The service area of the City of Ennis is located within Region C, and the City has provided a copy of this Plan to the Region C Regional Water Planning Group. Appendix A of this document is a copy of a letter sent to the Chair of Region C along a copy of the Plan.

Section XXI: Authorization

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

Section XXII: Application

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

Section XXIII: Definitions

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

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

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

Conservation: those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.

Customer: any person, company, or organization using water supplied by the City of Ennis, Texas.

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

Schedule of Watering: The City has set voluntary schedule of watering guidelines as outlined in the table below. These guidelines become mandatory if Stage 2 or any subsequent stage of the plan is initiated. The guidelines for times of watering also follow the same pattern. No watering will be allowed from 9 a.m. to 7 p.m. under any stage of the Plan; however these guidelines are voluntary until Stage 2 or any subsequent stage is initiated.

Schedule of Watering

Last Digit of Address	Allowed Watering Dates
0 and 5	5 th , 10 th , 15 th , 20 th , 25 th , 30 th ,
1 and 6	1 st , 6 th , 11 th , 16 th , 21 st , 26 th
2 and 7	2 nd , 7 th , 12 th , 17 th , 22 nd , 27 th
3 and 8	3 rd , 8 th , 13 th , 18 th , 23 rd , 28 th
4 and 9	4 th , 9 th , 14 th , 19 th , 24 th , 29 th ,

No watering will be allowed on the 31st. The lowest number will identify apartments, office building complexes, or other properties containing multiple addresses. Where there are no numbers a number will be assigned by the City Manager or his designee. These restrictions also apply to government facilities.

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

Landscape irrigation use: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and right of way and medians

Non-essential water use: water uses that are not essential to protect public, health, safety, and welfare, including:

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

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

Section XXIV: Criteria for Initiation and Termination of Drought Response Stages

The City Manager or his designee shall monitor water supply and/or demand conditions on a daily basis and shall determine when conditions warrant initiation or termination of each stage of the Plan, that is, when the specified “triggers” are reached. The triggering criteria described below is based on the vulnerability of the water system under a drought of record conditions and known total reliable pumping capacity. This number will be evaluated each year to take into consideration improvements that may have been added to the system.

Stage 0 Watch Conditions

Requirements for initiation - When the elevation of Lake Bardwell is less than 421' Mean Sea Level (MSL) or the daily water usage is greater than 45% of system capacity.

Action by the City

- Closely monitor lake levels, weather conditions and distribution system demands

Requirement for termination - Stage 0 of the Plan is a monitoring level of both reservoir levels and system capacity levels and as such is never terminated.

Stage 1 Mild Conditions

Requirement for initiation When the elevation of Lake Bardwell is equal to or less than 417' MSL or 74% of available capacity, and/or the daily potable water supply system demand is 6.0 Million Gallons per Day (MGD) or 75% of plant capacity.

Action by the City

- The City will reduce its own water use (e.g., landscape watering).
- The City notifies its wholesale customers that Stage 1 of the Plan is in effect
- The City continues public education efforts.

Requested Actions

- The City requests that residents voluntarily adhere to the five (5) day schedule delineated in Section VII Definitions.

Requirements for termination - Stage 1 of the Plan shall be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three consecutive days. Upon termination of Stage 1, Stage 0 becomes operative.

Stage 2 Moderate Conditions

Requirements for initiation When the elevation of Lake Bardwell is equal to or less than 414' MSL or 54% of available capacity, and/or the daily potable water supply system demand is 6.8 Million Gallons per Day (MGD) or 85% of plant capacity

Action by the City

- When this stage is initiated, the City will further reduce its own water use. The City will prohibit non-essential uses of water

- The City will notify both retail and wholesale customers.
- The City will increase public information efforts
- An internal working group will analyze the conditions which triggered the stage and will monitor for subsequent stages.

Prohibited Actions

- Watering, except on the schedule of once every five days, as outlined in this Plan.
- No watering is allowed between the hours of 9 a.m. and 7 p.m.
- Hosing off paved areas, buildings, or windows.
- Actions which create water running into the street, or otherwise waste water.
- Use of water from hydrants for any purpose other than firefighting related activities or other activities necessary to maintain public health, safety and welfare.

Exceptions

- Watering using hand-held hose or bucket can be conducted any day.
- Newly planted landscaping (planted in the spring of the current year) and commercial plant nurseries may water on any day.
- Use of water from designated fire hydrants for construction purposes may be allowed only under a special permit from the City of Ennis Inspection Department.
- All landscape watering exceptions must still abide by the 9 a.m. to 7 p.m. water restrictions.

Requirements for termination Stage 2 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage 2, Stage 1 becomes operative.

Stage 3 Severe Conditions

Requirements for initiation Requirements for initiation When the elevation of Lake Bardwell is equal to or less than 412' MSL or 40% of available capacity, and/or the daily potable water supply system demand is 7.2 Million Gallons per Day (MGD) or 90% of plant capacity.

Actions by City

- When this stage is triggered, the City will further reduce its own water use. The City will prohibit its own use of water for street washing, vehicle washing, operation of ornamental fountains, and all other non-essential uses.
- The City will notify retail and wholesale customers
- The City will discontinue its landscape watering except as needed to prevent foundation damage, to preserve new plantings, and save rare plantings. The daily watering restrictions will be enforced for these exceptions.
- The City will increase public information efforts on the water supply.
- An internal working group will analyze the conditions which triggered the stage and will monitor for subsequent stages.
- Raise retail and wholesale rates by 10 percent for use of more than 10,000 gallons per month.

Prohibited Actions

- Watering, except on the schedule of once every five days, as outlined in the Plan
- No watering is allowed between the hours of 9 a.m. and 7 p.m
- Hosing off paved areas, buildings, or windows
- Operation of ornamental fountains
- Draining, filling, refilling or adding water to swimming pools and/or Jacuzzi type pools.
- Foundation watering, except done by hand-held hose or watering cans, using the five-day schedule

- Use of water from hydrants for any purpose other than firefighting related activities or other activities necessary to maintain public health, safety and welfare
- Vehicle washing
- Actions which create water running into the street or otherwise waste water

Exceptions

- Newly planted landscaping (planted in the spring of the current year) and commercial plant nurseries may water on any day.
- Vehicles that need to be washed for health, sanitation, or safety reasons (e.g., food carriers) are exempted. Any vehicle washing must occur at a commercial car wash or commercial service station.
- Commercial pools may refill water lost to normal daily use but hosing off walkways is prohibited
- Use of water from designated fire hydrants for construction purposes may be allowed under a special permit from the City of Ennis Inspection Department.
- All landscape watering exceptions must still abide by the 9 a.m. to 7 p.m. water restrictions.

Requested Actions

- Installation of new landscapes should be delayed until watering restrictions are lifted.

Requirements for termination Stage 3 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage 3, Stage 2 becomes operative.

Stage 4 Critical Conditions

Requirements for initiation When the elevation of Lake Bardwell is equal to or less than 409' MSL or 20% of available capacity, and/or the daily potable water supply system demand is 7.6 Million Gallons per Day (MGD) or 95% of plant capacity

Actions by City

- When this stage has been triggered, the City will discontinue its landscape watering except as needed to prevent foundation damage and to save rare plantings. All watering must be done by hand-held hose or watering cans.
- The City will increase public information efforts on the water supply. More information will be available on the City website.
- An internal working group will analyze the conditions which triggered the stage and will continue to monitor the situation.
- Raise retail and wholesale water rates 20 percent for use of more than 10,000 gallons per month.

Prohibited Actions

- Landscape watering
- Installation of new landscaping
- Hosing off paved areas, buildings, or windows
- Operation of ornamental fountains
- Draining, filling, refilling or adding water to swimming pools and/or Jacuzzi type pools
- Foundation watering, except done by hand-held hose or watering cans, using the five-day schedule
- Actions which create water running into the street, or otherwise waste water
- Washing of vehicles
- Use of water from hydrants for any purpose other than firefighting related activities, or other activities necessary to maintain public health, safety and welfare

Exceptions

- Vehicles that need to be washed for health, sanitation, or safety reasons (e.g., food carriers) are exempted. Any vehicle washing must occur at a commercial car wash or commercial service station
- New landscaping (landscaping installed during the spring of the current year) may be watered daily for the first ten days after establishment, every other day for the next ten days and then every third day for the next ten days. Beyond that, it shall follow the five-day schedule
- Commercial plant nurseries can water plant stock by hand every other day.
- Watering by governments is limited to areas of rare vegetation and rare plantings.
- All watering exceptions must still abide by the 9 a.m. to 7 p.m. water restrictions

Requirement for termination Stage 4 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of three (3) consecutive days. Upon termination of Stage 4, Stage 3 becomes operative.

Stage 5 EMERGENCY Water Shortage Conditions

Requirements for initiation; Customers shall be required to comply with the requirements and restrictions for Stage 5 of this Plan when the City Manager, or his designee, determines that a water supply emergency exists based on:

1. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service;
2. Natural or man-made contamination of the water supply source(s); or
3. Any other situation deemed an emergency by the City Manager.

Stage 5 may be applied to the City as a whole or to a specific sector of the City.

Actions by City

- When this stage has been triggered, the City will discontinue all uses of water except for those required to maintain public health, safety and welfare
- The City will inform the public of the emergency through the best available means
- An internal working group will analyze the conditions which triggered the stage and will continue to monitor the situation.

Prohibited Actions

- Landscape watering at any time
- Installation of new landscaping
- Hosing off paved areas, buildings, or windows
- Operation of ornamental fountains
- Draining, filling, refilling or adding water to swimming pools and/or Jacuzzi type pools
- Foundation watering
- Actions which create water running into the street, or otherwise waste water
- Washing of vehicles
- Use of water from hydrants for any purpose other than firefighting related activities, or other activities necessary to maintain public health, safety and welfare
- Use of water for any non essential purpose

Exceptions

- Exceptions will be reviewed on a case by case basis by the City Manager

Requirements for termination; All initiated actions will remain in effect until the conditions that triggered the stage have been eliminated. Upon termination of Stage 5, Stage 4, Stage 3, Stage 2, or Stage 1 may become effective. When the stage is rescinded and which stage may become effective will be determined by the City Manager.

Section XXV: Drought Response Stages

The City Manager or his designee shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section VIII, shall determine that watch, mild, moderate, severe, critical, or emergency conditions exist and shall implement the following notification procedures as necessary;

Notification of the Public:

The City Manager or his designee shall notify the public by the best available means. Some potential methods of notification include;

- Publication in a newspaper of general circulation,
- Direct mail to each customer,
- Public service announcements,
- Signs posted in public places
- Take-home fliers at schools.

Additional Notification

The City Manager or his designee shall when warranted notify directly, or cause to be notified directly, the following individuals and entities:

- Mayor and City Commission
- Fire Chief
- City and/or County Emergency Management Coordinator
- County Judge & Commissioners
- State Disaster District / Department of Public Safety
- TCEQ (required when mandatory restrictions are imposed)
- Major water users
- Critical water users, i.e. hospitals
- Parks / street superintendents & public facilities managers
- Wholesale customers will be notified by telephone, fax, e-mail, and/or registered mail

Stage 0 Response Water Watch Conditions

The City will increase public awareness related to conservation and monitor weather patterns and consumption in this stage.

This is a monitoring level and no goal for reduction is set

Stage 1 Response Mild Water Shortage Conditions

The City will curtail all non essential use and notify its wholesale customer to do the same. The City will continue its ongoing public education efforts and request voluntary cooperation with the watering schedules in the plan.

Our goal will be to achieve a 2% voluntary reduction within 1 week of initiation

Stage 2 Response Moderate Water Shortage Conditions

When this stage is initiated, the City will further reduce its own water use and prohibit its own use of water for any non-essential uses. The City will increase public information efforts on water

conservation and create an internal working group who will analyze the conditions which triggered the stage and will monitor for subsequent stages.

The City will prohibit watering, except on the schedule of once every five days, as outlined in this Plan and all watering between the hours of 9 a.m. and 7 p.m. will be barred. Additionally we will prohibit the hosing off of paved areas, buildings, or windows and any other actions which waste water. Use of water from hydrants for any purpose other than firefighting related activities or other activities necessary to maintain public health, safety and welfare will not be allowed.

After initiating this stage of the Plan the City anticipates a 3% reduction in system demand within 1 week,

Stage 3 Response Severe Water Shortage Conditions

When this stage is triggered, the City will further reduce its own water use. The City will prohibit its own use of water for street washing, vehicle washing, operation of ornamental fountains, and all other non-essential uses. The City will discontinue its landscape watering except as needed to prevent foundation damage or to preserve new plantings, and save rare plantings. The daily watering restrictions will be enforced for these exceptions. The City will increase public information efforts on the water supply. More information will be available on the Water Department website and/ or through the newspaper and public service announcements. An internal working group will analyze the conditions which triggered the stage and will monitor for subsequent stages. We will raise retail and wholesale rates by 10 percent for use of more than 10,000 gallons per month.

We will prohibit watering except on the schedule of once every five days, as outlined in the Plan and will ban all watering between the hours of 9 a.m. and 7 p.m. The hosing off of paved areas, buildings, and windows, vehicle washing and the operation of ornamental fountains will not be allowed. The draining, filling, refilling or adding water to swimming pools and/or Jacuzzi type pools will be stopped and foundation watering will only be allowed using a hand-held hose or watering can and adhering to the five-day schedule. Use of water from hydrants for any purpose other than firefighting related activities or other activities necessary to maintain public health, safety and welfare and any other actions which create water running into the street or otherwise waste water.

Utility personnel will be instructed to immediately repair all leaks and treatment plant personnel will be instructed to follow prescribed guidelines for the maintenance of levels in ground and overhead storage facilities.

By the end of the first week after initiation of the stage, the City anticipates a 5% reduction in system demand.

Stage 4 Response Critical Water Shortage Conditions

When this stage has been triggered, the City will discontinue its landscape watering except as needed to prevent foundation damage and to save rare plantings. Foundation watering will be done by hand-held hose or watering cans and on the schedule in the Plan. The City will increase public information efforts on the water supply. Information will be made available through all methods previously described. An internal working group will continue to analyze conditions and monitor the situation. Retail and wholesale water rates will be raised by 20 percent for use of more than 10,000 gallons per month.

Landscape watering, installation of new landscaping, washing of vehicles, hosing off of paved areas, buildings, and windows, operation of ornamental fountains draining, filling, refilling or adding water to swimming pools and/or Jacuzzi type pools, foundation watering, except by hand-held hose and using the five-day schedule, the utilization of water from hydrants for any purpose

other than firefighting related activities, or other activities necessary to maintain public health, safety and welfare, and any other actions which create water running into the street, or otherwise waste water will be prohibited.

Utility personnel will be instructed to immediately repair all leaks, utilize leak detection equipment to identify and repair suspected leaks, and treatment plant personnel will be instructed to follow prescribed guidelines for the maintenance of levels in ground and overhead storage facilities.

By the end of the first week after initiation of the stage, the City anticipates a 10% reduction in system demand.

Stage 5 Response Emergency Water Shortage Conditions

This stage of the plan will be triggered by major water line breaks, or pump or system failures, which cause unprecedented loss of capability to provide water service, **or** natural or man-made contamination of the water supply source, and/or any other situation deemed an emergency by the City Manager. All requirements of all stages in this plan will remain in effect in Stage 5. Any exception will require review by the City Manager on a case by case basis and all initiated actions will remain in effect until the conditions that triggered the stage have been eliminated. Upon termination of Stage 5, Stage 4, Stage 3, Stage 2, or Stage 1 may become effective. When the stage is rescinded, and which stage may become effective will be determined by the City Manager.

The goal of this stage is to reduce water consumption by prohibiting all water use with the exception of fire fighting and health or sanitation uses.

If the emergency should cause all water production to cease additional measures at the sole discretion of the City Manager will be enacted including but not limited to providing bottled water, bringing water in tanker trucks, or other measures as deemed necessary by the Manager.

Wholesale customers shall be subject to Texas Water Code as follows:

Sec. 11.039 DISTRIBUTION OF WATER DURING SHORTAGE (a) If a shortage of water in a water supply not covered by a water conservation plan prepared in compliance with Texas Natural Resource Conservation Commission or Texas Water Development Board rules results from drought, accident, or other cause, the water to be distributed shall be divided among all customers pro rata, according to the amount each may be entitled to, so that preference is given to no one and everyone suffers alike.

(b) If a shortage of water in a water supply covered by a water conservation plan prepared in compliance with Texas Natural Resource Conservation Commission or Texas Water Development Board rules results from drought, accident, or other cause, the person, association of persons, or corporation owning or controlling the water shall divide the water to be distributed among all customers pro rata, according to:

(1) the amount of water to which each customer may be entitled; or

(2) the amount of water to which each customer may be entitled, less the amount of water the customer would have saved if the customer had operated its water system in compliance with the water conservation plan.

(c) Nothing in Subsection (a) or (b) precludes the person, association of persons, or corporation owning or controlling the water from supplying water to a person who has a prior vested right to the water under the laws of this state.

Section XXVI: Enforcement

- a) No person shall knowingly or intentionally allow the use of water from the City of Ennis, Texas for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan, or in an amount in excess of

- b) Any person who violates this Plan is guilty of a misdemeanor and upon conviction shall be punished by a fine of not less than \$100.00 and not more than \$1,000.00. Each day that one or more of the provisions in this Plan is violated shall constitute a separate offense. If a person is convicted of three or more distinct violations of this Plan, the City Manager shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of a reconnection charge, hereby established at \$ 100.00 and any other costs incurred by the City of Ennis, Texas in discontinuing service. In addition, suitable assurance must be given to the City Manager that the same action shall not be repeated while the Plan is in effect. Compliance with this Plan may also be sought through injunctive relief in the District Court.
- c) Any person, including a person classified as a water customer of the City of Ennis, Texas, in apparent control of the property where a violation occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the persons property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation, but any such person shall have the right to show that he/she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children and proof that a violation, committed by a child, occurred on property within the parent's control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she has previously directed the child not to use the water as it was used in violation of this Plan and that the parent could not have reasonably known of the violation.
- d) Any employee of the City of Ennis, Texas, police officer, or other employee designated by the City Manager, may issue a citation to a person he/she reasonably believes to be in violation of this Ordinance. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if know, the offense charged, and shall direct him/her to appear in the Municipal Court on the date shown on the citation which date shall not be less than three days nor more than five days from the date the citation was issued. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of the violator, or to a person over 14 years of age who is a member of the violator(s) immediate family or is a resident of the violator(s) residence. The alleged violator shall appear in Municipal Court to enter a plea of guilty or not guilty for the violation of this Plan. If the alleged violator fails to appear in Municipal Court, a warrant for his/her arrest may be issued. A summons to appear may be issued in lieu of an arrest warrant. These cases shall be expedited and given preferential setting in Municipal Court before all other cases.
- e) Wholesale customers will be required to abide by the take conditions stated in the contract and will be subject to any or all of the enforcement measures stated above at the discretion of the City Manager.

Section XXVII: Variances

The City Manager, or his designee, may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met;

- a) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other conditions for which the Plan is in effect.
- b) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Any person, or wholesale entity requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the City of Ennis, Texas within five days after the Plan or a particular drought response stage has been invoked. All petitions for the variances shall be reviewed by the City Manager, or his designee, and shall include the following:

- a. Name and address of the petitioner(s).
- b. Purpose of water use.
- c. Specific provision(s) of the Plan from which the petitioner is requesting relief.
- d. Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
- e. Description of the relief requested.
- f. Period of time for which the variance is sought.
- g. Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
- h. Other pertinent information.

Variances granted by the City of Ennis, Texas shall be subject to the following conditions, unless waived or modified by the City Manager or his designee:

- a. Variances granted shall include a time table for compliance.
- b. Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

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

Section XXVIII: New Contracts

All new or renewed wholesale contracts approved by the City Commission, City of Ennis, Texas will require adoption of drought contingency measures at least as stringent as the City plan and state that such contracts are subject to Texas Water Code Section 11.039.

Section XXIX: Severability

It is hereby declared to be the intention of the City Commission, City of Ennis, Texas that the sections, paragraphs, sentences, clauses, and phrases of this Resolution are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the City Commission without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

Section XXX: Adoption

This ordinance shall take effect immediately from and after its passage and the publication of the caption, as the law in such cases provides.

PASSED AND APPROVED ON THIS THE FIRST READING ON THE 16th DAY OF MARCH, 2009.

PASSED AND APPROVED ON THIS THE SECOND READING ON THE 6TH DAY OF APRIL, 2009.

CITY OF ENNIS, TEXAS

By: Signed / Russell R. Thomas
RUSSELL R. THOMAS, Mayor

ATTEST:

Signed / Shirley Trull
Shirley Trull
City Secretary



264 (2-25-05)

WRD-

Appendix A

TEXAS WATER DEVELOPMENT BOARD

UTILITY PROFILE

The purpose of the Utility Profile is to assist with water conservation plan development and to ensure that important information and data be considered when preparing your water conservation plan and its target and goals. Please complete all questions as completely and objectively as possible. See *Water Conservation Plan Guidance Checklist (WRD-022)* for information on other water conservation provisions. You may contact the Municipal Water Conservation Unit of the TWDB at 512-936-2391 for assistance.

APPLICANT DATA

Name of Utility: City of Ennis

Address & Zip: Po Box 220 75119

Telephone Number: 972-875-1234

Fax: 972-875-1906

Form Completed By: Larry Rhone

Title: Water Foreman

Signature:

Date:

Name and Phone Number of Person/Department responsible for implementing a water conservation program:

Name: Robert Bolen

Phone: 972-875-1234

UTILITY DATA

I. CUSTOMER DATA

A. Population and Service Area Data

1. Please attach a copy of your Certificate of Convenience and Necessity (CCN) from the TCEQ
2. Service area size (square miles): 20.9 sq. miles
3. Current population of service area: 19,300
4. Current population served by utility: a: water 19,300
b: wastewater 19,300

5. Population served by water utility for the previous five years:

Year	Population
2003	18,246
2004	18,248
2005	19,331
2006	19,331
2007	19,300

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

Year	Population
2010	19,993
2020	28,100
2030	37,922
2040	50,815
2050	68,093

7. List source(s)/method(s) for the calculation of current and projected population: North Central Texas Council of Government

B. Active Connections

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

Treated water users:	Metered	Not-metered	Total
Residential-Single-Family	4,921	0	4,921
Residential-Multi-Family	57	0	57
Commercial	660	0	660
Industrial			
Public			
Other	5	0	5

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

Year	2005	2006	2007
Residential –Single-Family	412	487	699
Residential-Multi-Family	2	15	1
Commercial	41	62	65
Industrial			
Public			
Other			

C. High Volume Customers

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

Customer	Use (1,000gal./yr.)	Treated OR Raw
(1) Elk Corporation of Ennis	51,123	Treated
(2) Ennis Tractebel Power Co., L.P	33,191	Raw
(3) Ennis Acquisitions, Inc.	21,918	Treated
(4) Sterilite	17,889	Treated
(5) Mc Whorter Technologies	5,779	Treated

II. WATER USE DATA FOR SERVICE AREA

A. Water Accounting Data

1. Amount of water use for previous five years (in 1,000 gal.):
Please indicate: Diverted Water
Treated Water

Year	2,003	2,004	2,005	2,006	2,007
January	83,948	77,273	71,467	80,555	68,033
February	74,459	71,161	63,941	65,559	62,375
March	86,366	75,680	68,387	69,025	70,642
April	94,770	83,310	73,975	90,870	61,175
May	90,467	98,135	86,574	101,328	66,226
June	92,231	96,285	99,154	125,112	67,622
July	121,061	125,156	100,229	125,221	79,880
August	120,361	125,555	103,500	143,474	106,630
September	91,446	114,745	91,587	104,340	88,510
October	90,695	92,291	92,825	88,548	86,674
November	79,979	69,870	91,904	76,617	71,542
December	79,888	72,905	104,068	70,389	66,578
Total	1,105,671	1,102,366	1,047,611	1,141,038	895,887

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

2. Amount of water (in 1,000 gallons) delivered (sold) as recorded by the following account types (See #1, Appendix B) for the past five years.

Year	Residential	Commercial	Industrial	Wholesale	Other	Total Sold
2003	407,102	353,254	83,510	63,975		907,759
2004	391,726	380,423	76,526	67,202		915,872
2005	444,195	398,233	96,315	70,618		1,009,361
2006	476,686	426,614	127,118	92,869		1,123,287
2007	389,999	339,269	81,593	79,787		890,648

3. List previous five years records for water loss
(See #2, Appendix B)

Year	Amount(gal)
2003	192,203,000
2004	171,229,000
2005	134,438,000
2006	132,070,000
2007	171,685,000

4. List previous five years records for annual peak-to-average daily use ratio
(See #3, Appendix B)

Year	Average MGD	Peak MGD	Ratio
2003	3,029,236	5,050,000	1.67
2004	3,020,107	5,122,000	1.70
2005	2,870,164	4,481,000	1.56
2006	3,126,132	5,423,000	1.73
2007	2,460,088	4,180,000	1.70

5. Total per capita water use for previous five years (See #4, Appendix B):

Year	Population	Total Diverted (or Treated Less Wholesale Sales (1,000 gal.)	Per Capita (gpcd)
2003	18,246	842,866,000	126
2004	18,248	848,675,000	127
2005	19,331	938,743,000	133
2006	19,331	1,030,418,000	146
2007	19,300	810,861,000	115

6. Seasonal water use for the previous five years (in gallons per person per day)
(See #5, Appendix B)

Year	Population	Base Per Capita Use	Summer Per Capita Use
2007	19,331	115	146
2006	19,331	123	222
2005	18,246	145	184
2004	18,248	135	211
2003	18,246	145	203

B. Projected Water Demands

Population growth of 500 persons/yr and average per capita use of 146 gallons

Year	Projected Population	Projected Demands
2007	19,300	1,028,497,000
2008	19,800	1,055,142,000
2009	20,300	1,081,787,000
2010	20,800	1,108,432,000
2011	21,300	1,135,077,000
2012	21,800	1,161,722,000
2013	22,300	1,188,367,000
2014	22,800	1,215,012,000
2015	23,300	1,241,657,000
2016	23,800	1,268,302,000
2017	24,300	1,294,947,000

III. WATER SUPPLY SYSTEM

A. Water Supply Sources

List all current water supply sources and the amounts available with each:

	Source	Amount Available	
Surface Water	Bardwell Reservoir	4,713,680	MGD
Surface Water	Tarrant Regional Water District	1,700,000	MGD
Contracts		NA	MGD
Other		NA	MGD

B. Treatment and Distribution System

1. Design daily capacity of system: 12.0 MGD
2. Storage Capacity: Elevated 1.5 MG, Ground 2.0 MGD
3. If surface water, do you recycle filter backwash to the head of the plant?
Yes No . If yes, approximately how many MGD.
4. Please describe the water system. Include the number of treatment plants, wells, and storage tanks. If possible, include a sketch of the system layout.
The City of Ennis has one (1) conventional water treatment facility rated at 12.0 MGD, two (2) concrete one 1 million gallon ground storage tanks, two (2) 750, 000 gallon steel elevated storage tanks and approximately 102 miles of water distribution piping ranging in size from 2" to 20"

IV. WASTEWATER UTILITY SYSTEM

A. Wastewater System Data

1. Design capacity of wastewater treatment plant 4.0 MGD
2. Is treated effluent used for irrigation on-site no, off-site no, plant wash down yes, or chlorination/dechlorination no?
Approximately 600,000 gallons per month of non potable water is used for wash down. The Tractebel Power Company uses approximately 900,000 gallons per day of treated effluent in their process.
3. Briefly describe the wastewater system of the area serviced by the water utility. Describe how treated wastewater is disposed of. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and, if wastewater is discharged, the receiving stream.
The City of Ennis owns and operates the Oak Grove Wastewater Treatment Plant TPDES number 10443-002 that discharges to Cummings Creek.
Please provide a sketch or map which locates the plant(s) and discharge points or disposal sites.

B. Wastewater Data for Service Area

1. Percent of water service area served by wastewater system: 99%
2. Monthly volume treated for previous three years (in 1,000 gallons):

Year	2005	2006	2007
January	70,540,000	59,310,000	75,140,000
February	69,980,000	54,770,000	42,470,000
March	66,110,000	50,640,000	41,300,000
April	48,720,000	49,990,000	35,440,000
May	60,520,000	33,160,000	35,370,000
June	39,540,000	37,790,000	32,300,000
July	44,490,000	42,270,000	49,890,000
August	42,180,000	39,210,000	74,510,000
September	53,660,000	44,250,000	59,280,000
October	49,440,000	42,180,000	46,990,000
November	47,410,000	52,100,000	49,480,000
December	68,000,000	44,970,000	40,180,000
Total	660,590,000	550,640,000	582,350,000

Appendix B

Definitions of Utility Profile Terms

1. **Residential sales** should include water sold to residential (Single and Multi-Family) class customers only.
Industrial sales should include water sold to manufacturing and other heavy industry.
Commercial sales should include water sold to all retail businesses, offices, hospitals, etc
Wholesale sales should include water sold to another utility for a resale to the public for human consumption.
2. **Water Loss** is the difference between water a utility purchases or produces and the amount of water that it can account for in sales and other known uses for a given period. Water loss can result from:
 1. inaccurate or incomplete record keeping;
 2. meter error;
 3. unmetered uses such as firefighting, line flushing, and water for public buildings and water treatment plants;
 4. leaks; and
 5. water theft and unauthorized use.
3. The **peak-day to average-day ratio** is calculated by dividing the maximum daily pumpage (in million gallons per day) by the average daily pumpage. Average daily pumpage is the total pumpage for the year (as reported in Section IIA1, p. 4) divided by 365 and expressed in million gallons per day.
4. **Total use in gallons per capita per day** is defined as total average daily amount of water diverted or pumped for treatment for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment for potable use by population served then divide by 365. Indirect reuse volumes shall be credited against total diversion volumes for the purpose of calculation gallons per capita per day for targets and goals developed for the water conservation plan. Total water use is calculated by subtracting the wholesale sales from the total water diverted or treated (as reported in Section IIA1).
5. **Seasonal water use** is the difference between base (winter) daily per capita use and summer daily per capita use. To calculate **the base daily per capita use**, average the monthly diversions for December, January, and February, and divide this average by 30. Then divide this figure by the population. To calculate the **summer daily per capita use**, use the months of June, July, and August.