

*revised
Ordinance*

CITY OF ELDORADO, TEXAS



Water Conservation Plan/ Drought Contingency Plan

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TABLE OF CONTENTS

WATER CONSERVATION PLAN	1
Introduction.....	1
Water Conservation Plan Goals	1
Background Information.....	2
Utility System Profile	2
Wastewater System.....	2
Water System	3
Public Education	4
Plumbing Codes.....	4
Retrofit Programs.....	4
Universal Metering	4
Water Conserving Landscape	5
Rate Structures of Water and Wastewater	5
Leak Detection and Water Audits.....	6
Recycling and Reuse.....	6
Implementation and Enforcement.....	6
Contracts with Other Political Subdivisions	6
Coordination with the Regional Water Planning Group.....	6
Annual Reporting to Texas Water Development Board.....	7
 DROUGHT CONTINGENCY PLAN (Emergency Water Demand Management Plan).....	8
Introduction.....	8
Section I: Declaration of Policy, Purpose, and Intent.....	8
Section II: Public Involvement	9
Section III: Public Education.....	9
Section IV: Coordination with Regional Water Planning Groups.....	9
Section V: Authorization	10
Section VI: Application	10
Section VII: Definitions.....	10
Section VIII: Criteria for Initiation and Termination of Drought Response Stages.....	11
Section IX: Drought Response Stages	15
Section X: Enforcement.....	23
Section XI: Variances	24
 Appendix A – Water Conservation Utility Profile, TWDB Form 1965	
Appendix B – Water Conservation Program Annual Report, TWDB Form WRD-265	
Appendix C – Water Conservation Plan and Drought Contingency Plan Adoption Ordinance	
Appendix D – Schedule and Tracking Form	



WATER CONSERVATION PLAN

Introduction

In accordance with the guidelines of the Texas Water Development Board (TWDB), the CITY of Eldorado, (hereafter referred to as "the CITY"), has prepared this Water Conservation and Drought Contingency Plan.

Water Conservation Plan Goals

The purpose of this water conservation plan is intended to comply with TWDB and Texas Commission on Environmental Quality (TCEQ) requirements and achieve:

- Long-term reductions in overall water demands 5-percent per capita over the next ten years;
- Reductions in the magnitude of seasonal water demands by 2-percent over the next five years;
- Reductions in wastewater flow volumes by 1-percent over the next five years; and
- Reductions in percent unaccounted for water by 10-percent over the next ten years.

Given current and projected water and wastewater service requirements and issues, specific water conservation objectives are:

- To reduce waste and influence conservation habits of the residents of the CITY;
- To reduce seasonal water demands such that future development of water wells and treatment facilities can be deferred; and
- To investigate the feasibility of reusing wastewater for suitable non-potable uses (i.e., irrigation of public green space and private landscaping).

5-year and 10-year Targets and Goals for water savings

Table 1-1
CITY OF ELDORADO
Water Conservation Goals

Description	Current Average (gpcd)	5-year Goal (gpcd)	10-year Goal (gpcd)
Total GPCD	175.9*		
Water Conservation Goals		171	167

*Based on the average gpcd from the last 5 years.

Table 1-2
CITY OF ELDORADO
Water Loss Goals

Description	Current Average	5-year Goal	10-year Goal
Water Loss Goals (gpcd)	41*	30	15
Water Loss Goals (percentage)	27-percent	20-percent	10-percent

*Based on 2010 data.

Background Information

The CITY of Eldorado is located in the heart of Schleicher County at the intersection of U.S. Highways 190 and 277 approximately 45 miles south of San Angelo and about 22 miles north of Sonora.

Utility System Profile

The Water Conservation Utility Profile, TWDB Form 1965 for the CITY is provided in **Appendix A**.

Wastewater System

The CITY of Eldorado owns and operates its own centralized, conventional sewage collection and treatment system. The CITY's wastewater collection system was originally constructed in the early 1900s. The CITY operates its collection system under the authority granted to it by the CITY's Charter from the State of Texas and by the CCN issued by the Texas Commission on Environmental Quality (TCEQ) (CCN No. 20086). The CITY's wastewater treatment facility is permitted by the TCEQ (WQ0010165001) to discharge an Average Daily Flow of up to 0.385 million gallons per day. Currently, the CITY has 878 active sewer connections.

The CITY's wastewater collection system is comprised mainly of residential customers, along with a small number of commercial accounts, the largest of which are the Eldorado Independent School District and the Schleicher County Medical Center.

The majority of the collection system consists of gravity wastewater collection lines, most of which are 8-inches in diameter. The gravity collection lines are comprised of a variety of pipe materials including PVC and vitrified clay and in a few instances, there are 3-inch force mains.

The CITY operates a total of seventeen (17) sewage lift stations and their associated force mains that are located throughout the CITY. The lift stations allow the wastewater to be transported across the CITY's relatively flat terrain for discharge into gravity collection lines. The gravity collection lines discharge the wastewater to a 12-inch diameter gravity trunk line, which ultimately discharges to the wastewater treatment plant.

The CITY's wastewater treatment facility is a pond system located on the northeast side of the CITY and is capable of treating an average daily flow of up to 0.385 million gallons per day.



The treatment facility was originally constructed in 1983 and was most recently updated in 1997. The facility is sized to accommodate an average daily flow of up to 0.385 MGD and includes a facultative lagoon, and two stabilization ponds. The treatment facility discharges directly to the South Concho River (TCEQ River Segment No. 1424) which is classified by the TCEQ as an intermittent stream. No chemicals are used to treat the sewage entering or leaving the treatment facility.

Based on recent flow information obtained from the CITY the wastewater collection system currently has an Average Daily Flow (ADF) of approximately 258,000 gallons per day, or roughly 67-percent of its permitted limit. The CITY's wastewater collection and treatment system is currently not under any TCEQ enforcement actions; however, the collection system does have issues that hinder its ability to effectively collect and transport wastewater across the CITY. Three (3) existing sewage lift stations have been identified by CITY staff as being susceptible to storm water infiltration and inflow during significant rainfall events, as well as on-going operational and reliability issues. The vitrified clay sewer lines are typically older lines that currently suffer from root intrusion that contribute to the infiltration and inflow that the CITY's collection system experiences during rainfall events.

Water System

The CITY OF ELDORADO owns and operates its own public water system that serves the entire CITY. The CITY's water system was originally constructed in the early 1900's and is a registered public water system with the TCEQ (PWS No. 2070001). The CITY provides water service to its customers under the authority granted to it by the CITY's Charter from the State of Texas and by the Certificate of Convenience and Necessity (CCN) issued by the TCEQ (CCN No. 10225), where the boundary of the CCN area is generally a square that surrounds the CITY and includes some areas that lie outside the existing CITY Limits. The CITY OF ELDORADO's service area currently has 971 active water connections.

Similar to the CITY's wastewater collection system, the CITY's water distribution system is comprised mainly of residential customers, along with a small number of commercial accounts, the largest of which are the Eldorado Independent School District and the Schleicher County Medical Center.

Based on CITY OF ELDORADO water billing and metering data from 2008 and 2009, the CITY's water system currently has an Average Daily Demand (ADD) of approximately 357,000 gallons per day or 248 gallons per minute (gpm).

The CITY's water system is supplied by a series of groundwater wells that pump water from the Edwards – Trinity Aquifer from a depth of approximately 400 feet. The water wells are permitted by the Plateau Underground Water Conservation & Supply District. The District regulates and manages groundwater withdrawals within its jurisdiction boundaries, which encompasses Schleicher County.

The CITY will initiate a water meter testing and replacement program where older meters are tested and replaced as necessary. As part of the CITY's proposed water system improvements, old and undersized water mains will be replaced which should result in lower water loss rates

and improved system water pressures.

Public Education

The CITY will promote water conservation issues by informing the public in a variety of ways including:

- New customers will receive conservation information when applying for service;
- Educational material will be distributed to all customers on a semi-annual basis, timed to correspond with peak summer and winter demand periods;
- Information will be available upon request;
- Community educational program/school demonstrations and presentations;
- Presentations available for civic groups; and
- Articles will be published in the newsletter.

The CITY will also proclaim "National Drinking Water Week" and provide residents with information and demonstrations related to water conservation and environmental issues that effect our water.

Plumbing Codes

The CITY adopted the Southern Building Code.

Retrofit Programs

The CITY shall educate the residents, plumbers, and contractors on the benefits of retrofitting existing facilities with water saving devices. This program will be encompassed in the educational and informational programs utilized by the CITY. The CITY will contact all plumbing companies and hardware stores in the area to encourage them to stock water conserving fixtures including retrofit devices.

Accurate Metering of Raw Water Supplies and Treated Water Deliveries

Each well and most municipal structures operated by the CITY OF ELDORADO are now being metered. The CITY plans to install meters at public parks and golf course to improve water accountability.

The CITY will continue to provide a water meter preventive maintenance program, wherein leak detection testing, repairs, and replacement are done on a regular basis in order to control water loss. All of these actions will be performed in accordance with AWWA standards.

Universal Metering

The CITY currently meters 100-percent of residential water used. The CITY has a policy of testing all meters, which appear to have abnormally high or low water usage. The CITY will set up the following meter-testing schedule:



1. Production meters – test once a year
2. Meters larger than 1-inch – test once a year
3. Meters 1-inch and smaller – test every ten years

The CITY has a computer that handles all of their billing. The CITY's computer billing program easily identifies any high or low rate users, and keeps track of all water use.

The CITY will continue to provide a water meter preventive maintenance program, wherein testing, repairs, and replacement are performed in accordance with AWWA standards.

Water Conserving Landscape

The CITY OF ELDORADO will provide information, through the public education program, to homeowners, business owners, landscape architects, and irrigation contractors about the methods and benefits of water conserving landscaping practices and devices. The following methods will be encouraged.

- The use of low water consuming plants and grasses for landscaping new homes and commercial areas.
- Business and nurseries to offer for sale low water consuming plants and grasses along with efficient irrigation systems and to promote their use through demonstrations and advertisements.

Rate Structures of Water and Wastewater

The CITY employs a water usage rate structure based on customer type and a uniform service charge. Current water and wastewater rates for residential and commercial accounts are presented in Tables 1-3 and 1-4 below:

Table 1-3
CITY OF ELDORADO
Water Rate Structure

Usage (Gal. per Month)	Cost
0 – 3,000	\$15.00
Each additional 1,000 gal	\$3.00

Table 1-4
CITY OF ELDORADO
Wastewater Rate Structure

Usage (Gal. per Month)	Cost
Flat	\$17.50

Leak Detection and Water Audits

The CITY OF ELDORADO has aggressively pursued a leak detection and repair program and has in inventory all necessary repair materials needed to ensure prompt repairs of all leaks detected or reported.

The leak detection and repair program includes the following:

1. Monthly water use accounting by CITY staff and the billing system, both of which help to identify high water use after the service meters, indicating leaks;
2. Constant monitoring of elevated tanks which identifies major water main breaks;
3. Visual inspection by meter readers and system employees who keep a constant watch out for abnormal conditions indicating leaks; and
4. An adequate maintenance staff that is available to repair any leaks.

A monthly water loss report provides an effective tracking system of metered production, metered consumption, accounted water losses, and unaccountable water loss.

The CITY has averaged an annual unaccountable rate of 27-percent, which is greater than the AWWA recommended rate (10-percent). The CITY plans to continue decreasing this rate by implementing the measures above.

Recycling and Reuse

The CITY will evaluate the possibility of using its wastewater effluent for recycling and reuse.

Implementation and Enforcement

The Ordinance adopting the Water Conservation Plan shall authorize the CITY to implement, enforce, and administer the program.

Contracts with Other Political Subdivisions

The CITY will, as part of any contract for sale of water to another entity re-selling water, require that entity to adopt applicable provisions of the CITY's water conservation and drought contingency plan or have a plan in effect previously adopted by TCEQ or TWDB. These provisions will be through contractual agreement prior to the sale of any water to the entity.

Coordination with the Regional Water Planning Group

The service area of the CITY OF ELDORADO is located within the Regional Water Planning Area (F) and will provide a copy of this Water Conservation and Drought Contingency Plan to the Regional Water Planning Group (F).



Annual Reporting to Texas Water Development Board

The MAYOR shall be responsible for providing the required annual report to the Texas Water Development Board and TCEQ. The content and format for the annual reporting is included in the form: Water Conservation Program Annual Report, WRD-265 (**Appendix B**).



DROUGHT CONTINGENCY PLAN (EMERGENCY WATER DEMAND MANAGEMENT PLAN)

Introduction

It is necessary for the CITY OF ELDORADO to have in place a Drought Contingency/Emergency Water Demand Plan that will deal with emergency water demand situations. There are a number of scenarios where the public water supply could be adversely affected and the public's health jeopardized. Normal service can be interrupted by such uncontrollable circumstances as drought, hurricanes, tornadoes, vandalism, floods, or equipment failure. Water demand is usually significantly higher than normal when drought conditions are in effect causing maximum stress on the public water system.

This plan will provide the necessary indicators and control measures to temporarily abate water demand in emergency situations. These provisions are designed to be in place only as long as an emergency situation exists. To be effective the plan must have the following elements:

- Trigger conditions that will signal the existence of an emergency situation;
- Emergency control measures;
- Methods to relay information and notify the public;
- Enforcement procedures;
- Method of implementation of plan; and
- Procedure for plan termination notification.

Section I: Declaration of Policy, Purpose, and Intent

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

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

Section II: Public Involvement

The CITY OF ELDORADO made the Water Conservation and Drought Contingency Plan available to its customers at CITY HALL and the Public Library. The Plan was adopted by Ordinance of the Eldorado CITY COUNCIL. The CITY OF ELDORADO made drought contingency planning information available to the public as follows:

- The proposed plan was provided to anyone requesting a copy.
- The plan will be presented for adoption to the Eldorado CITY COUNCIL at a public meeting at Eldorado CITY HALL at 7:00 P.M. on October 10, 2011.

Section III: Public Education

The CITY OF ELDORADO 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 Water Utilities Department through ongoing programs, which will reach a wide variety of customers. These programs include public outreach to schools, Rotary Clubs, civic groups, and other adult and child groups. The CITY distributes conservation and drought response in water bill mailings and provides them to the general public at CITY Hall. The CITY also publishes this information in the local newspaper *The Eldorado Success* with information specific to water conservation and to this Plan. The CITY OF ELDORADO will inform and educate the public about its Plan by the following means:

- Posting the Notice of Drought conditions at the CITY OF ELDORADO CITY HALL, Post Office, Library, and major supermarkets.
- Preparing a bulletin describing the plan and making it available at CITY HALL and other appropriate locations.
- Notifying local organizations, schools, and civic groups that CITY OF ELDORADO 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 the drought stage changes, the CITY OF ELDORADO will notify local media of the issues, the drought response stage, and the specific actions required of the public.
- Customer Billing inserts will also be used as appropriate.

Section IV: Coordination with Regional Water Planning Groups

The service area of the CITY OF ELDORADO is located within the Plateau Underground Water Conservation Supply District and Regional Water Planning Area (F) and the CITY has provided a copy of this Water Conservation and Drought Contingency Plan to both these entities.

Section V: Authorization

The MAYOR, or his/her 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 MAYOR, or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

Section VI: Application

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

Section VII: 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 and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.

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

Customer: any person, company, or organization using water supplied by CITY OF ELDORADO.

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

Even number address: street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses.

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

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



Monitor well: a well located on a lot owned by the City of Eldorado which is adjacent to the CITY's WELL #1 behind CITY HALL. Personnel of the CITY and the Plateau Underground Water Conservation and Supply District regularly monitor the well to verify water levels in the nearby CITY well.

Non-essential water use: water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:

- a) irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this Plan;
- b) use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
- c) use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
- d) use of water to wash down buildings or structures for purposes other than immediate fire protection;
- e) flushing gutters or permitting water to run or accumulate in any gutter or street;
- f) use of water to fill, refill, or add to any indoor or outdoor swimming pools or jacuzzi-type pools;
- g) use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
- h) failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
- i) use of water from hydrants for construction purposes or any other purposes other than fire fighting.

Odd numbered address: street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

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

The MAYOR, or his/her designee, shall monitor water supply and/or demand conditions on a monthly 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 are based on the following:

The CITY's current treatment facilities capacity is rated at 248 gallons per minute (gpm) or 0.357 million gallons per day (mgd). Total water storage capacity is 0.5 million gallons, of which 0.1 million gallons are elevated storage.

Daily water demand will be monitored for impending emergency conditions by CITY staff. Trigger conditions will be based on an emergency situation caused by a natural disaster, equipment, or system failure, or extended high daily water demands.

Stage 1 Triggers -- MILD Water Shortage Conditions

Requirements for initiation

Customers may be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses, defined in Section VII – Definitions, when any one or more of these events occur:

1. Average daily water use reached seventy-five percent (75-percent) of daily maximum supply 1,250,000 GALLONS for 60 consecutive days.
2. The water level in the Monitor well reaches 315 FEET while the CITY pump is running.
3. An extended period (6 months) of time without significant rainfall (less than 2-inches).
4. Failure of two or more of the CITY's pumps.

Requirements for termination

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

Stage 2 Triggers -- MODERATE Water Shortage Conditions

Requirements for initiation

Customers may be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section IX of this Plan when any one or more of the following events occur:

1. Average daily water use reaches eighty percent (80-percent) of the maximum supply 1,250,000 GALLONS for 30 consecutive days.
2. The water level in any of the CITY's water storage tanks cannot be replenished quickly enough to maintain the average residual pressure on the system at 38 psi during working hours of the CITY.
3. The water level in the Monitor well reaches ³²²~~326 feet~~ while the CITY's pump is running.
4. Failure of one or more pumps or storage tanks that decreases the CITY's ability to maintain adequate storage for domestic and emergency service.

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 Triggers -- SEVERE Water Shortage Conditions

Requirements for initiation

Customers may be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 3 of this Plan when any one or more of the following events occur:

1. Failure of major component of the CITY's water system or an event which reduces the average residual pressure on the system below 36 PSI for a period of 12 hours.
2. Water consumption has reached ninety percent (90-percent) of daily maximum supply (1,250,000 gallons per day) for 30 consecutive days.
3. The water level in any of the CITY's water storage tanks cannot be replenished quickly enough to maintain the average residual pressure on the system at 36 PSI during working

hours of the CITY.

4. Other unforeseen events, which could cause imminent health or safety risks to the public.
5. The water level in the Monitor well reaches 329 feet while the CITY's pump is running.
6. Failure of a common pipeline connecting two (2) or more of the CITY's wells to the water distribution system.
7. Failure of one of the CITY's three storage tanks.
8. Loss of electricity for more than 8 hours, if during the outage the storage tank levels drop sufficiently to cause the average residual pressure on the system to fall below 36 PSI

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 Triggers -- CRITICAL Water Shortage Conditions

Requirements for initiation

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

1. Failure of major component of the CITY's water system or an event which reduces the average residual pressure on the system below 32 PSI for a period of 24 hours.
2. Water consumption has reached ninety-five percent (95-percent) of daily maximum supply (1,250,000 gallons per day) for 30 consecutive days.
3. The water level in any of the CITY's water storage tanks cannot be replenished quickly enough to maintain the average residual pressure on the system at 32 PSI during working hours of the CITY.
4. Other unforeseen events, which could cause imminent health or safety risks to the public.
5. The water level in the Monitor well reaches 336 feet while the CITY's pump is running.
6. Failure of a common pipeline connecting three (3) or more of the CITY's wells to the water distribution system.
7. Failure of two of the CITY's three storage tanks.
8. Loss of electricity for more than 12 hours, if during the outage the storage tank levels drop sufficiently to cause the average residual pressure on the system to fall below 32 PSI

Requirements for termination

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

Stage 5 Triggers -- EMERGENCY Water Shortage Conditions

Requirements for initiation

Customers may be required to comply with the requirements and restrictions for Stage 5 of this Plan when the MAYOR, or his/her designee, determines that a water supply emergency exists based on the occurrence of any one or more of the following events:

1. Failure of major component of the CITY's water system or an event which reduces the average residual pressure on the system below 30 PSI for a period of 36 hours.
2. Water consumption has reached ninety-seven percent (97-percent) of daily maximum supply (1,250,000 gallons per day) for 30 consecutive days.
3. The water level in any of the CITY's water storage tanks cannot be replenished quickly enough to maintain the average residual pressure on the system at 30 PSI during working hours of the CITY.
4. Other unforeseen events, which could cause imminent health or safety risks to the public.
5. The water level in the Monitor well reaches 343 feet while the CITY's pump is running.
6. Failure of a common pipeline connecting four (4) or more of the CITY's wells to the water distribution system.
7. Failure of one of the CITY's two elevated storage tanks.
8. Loss of electricity for more than 24 hours, if during the outage the storage tank levels drop sufficiently to cause the average residual pressure on the system to fall below 30 PSI
9. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or
10. Natural or man-made contamination of the water supply source(s).

Requirements for termination

Stage 5 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 5, Stage 4 becomes operative.

Stage 6 Triggers -- WATER ALLOCATION

Requirements for initiation

Customers may be required to comply with water allocation Plan prescribed in Section IX of this Plan and comply with the requirements and restrictions for STAGE 5 of this Plan when any one or more of the following events occur:

1. Failure of major component of the CITY's water system or an event which reduces the average residual pressure on the system below 28 PSI for a period of 48 hours.
2. Water consumption has reached ninety-eight percent (98-percent) of daily maximum supply (1,250,000 gallons per day) for 30 consecutive days.
3. The water level in any of the CITY's water storage tanks cannot be replenished quickly enough to maintain the average residual pressure on the system at 28 PSI during working hours of the CITY.
4. Other unforeseen events, which could cause imminent health or safety risks to the public.
5. The water level in the Monitor well reaches 350 feet while the CITY's pump is running.
6. Failure of a common pipeline connecting four (4) or more of the CITY's wells to the water distribution system.
7. Failure of one of the CITY's two elevated storage tanks.
8. Loss of electricity for more than 48 hours, if during the outage the storage tank levels drop sufficiently to cause the average residual pressure on the system to fall below 28 PSI
9. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or
10. Natural or man-made contamination of the water supply source(s).

Requirements for termination

Stage 6 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 6, Stage 5 becomes operative.

Section IX: Drought Response Stages

The MAYOR, or his/her 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 of this Plan, shall determine that a mild, moderate, severe, critical, emergency or water shortage condition exists and shall implement the following notification procedures:

Notification

Notification of the Public:

The MAYOR or his/ here designee shall notify the public by means of:

- Posting the Notice of Drought conditions at the CITY OF ELDORADO CITY Hall, Post Office, and Library.
- At any time that the Plan is activated or the drought stage changes, the CITY OF ELDORADO will notify local media of the issues, the drought response stage, and the specific actions required of the public.
- Inform the public through the news media that a trigger condition has been reached, and that they should look for ways to voluntarily reduce water use. Specific steps, which can be taken, will be provided through the news media.

Additional Notification:

The MAYOR or his/ her designee shall notify directly, or cause to be notified directly, the following individuals and entities, as appropriate:

*MAYOR / Chairman and members of the CITY COUNCIL
Fire Chief(s)
CITY and/or County Emergency Management Coordinator(s)
County Judge & Commissioner(s)
State Disaster District / Department of Public Safety
TCEQ (required when mandatory restrictions are imposed)
Major water users
Critical water users, i.e. hospitals, schools and nursing homes
Parks/ street superintendents and public facilities managers*

Emergency Drought Contingency Measures

1. **STEP I** curtailment is one where the MAYOR can restrict, the use of water for outdoor sprinkling, watering of lawns, shrubs, driveways, and automobiles to certain areas of the service area by days and to certain hours. Said restrictions will remain in effect until the MAYOR lifts the restrictions. More specifically stated shall be:

- A. Inform the public through the news media that a trigger condition has been reached, and that they should look for ways to voluntarily reduce water use. Specific steps, which can be taken, will be provided through the news media.
 - B. Notify major commercial water users of the situation and request voluntary water use reductions.
 - C. Mandatory lawn- watering schedule shall be implemented.
 - D. During winter months, request water users to insulate pipes rather than running water to prevent freezing; and
 - E. CITY will monitor water pressure in the distribution system and water levels in the storage tanks.
2. A **STEP II** curtailment would be one where the MAYOR will ban the use of water totally for outdoor sprinkling, watering of lawns, shrubs, driveways, and automobiles. Said restriction will remain in effect until the MAYOR lifts the ban. More specifically stated as follows:
- A. Continue implementation of all relevant actions in proceeding phase.
 - B. Car washing, window washing, and pavement washing prohibited except when a bucket is used.
 - C. The following public water uses, not essential for public health or safety, are prohibited/ street washing, filling pools, athletic field watering, golf course watering, and water hydrant flushing.
 - D. The curtailment will be effective upon the MAYOR's giving notice of curtailment of the communities within the area; the posting of a notice of curtailment and notifying the news media of curtailment and as stated in Section 3.
 - E. The curtailments will be terminated upon the MAYOR giving notice of termination as he does for the institution of the curtailment.

Stage 1 Response -- MILD Water Shortage Conditions

Goal: Achieve a voluntary ten percent (10-percent) reduction in daily water demand.

1. Inform public by giving notice of a mild drought to the communities within the System; the posting of the notice, and notifying news media of the mild drought.
2. Include in the information to the public will be the recommendation that water users look for ways to conserve water.
3. The public will be advised of the trigger condition situation daily.

Supply Management Measures: None

Voluntary Water Use Restrictions:

- (a) Water customers are requested to voluntarily limit the irrigation of landscaped areas only between the hours of 8:00 p.m. to 10:00 a.m. on designated watering days.

- (b) All operations of the CITY OF ELDORADO shall adhere to water use restrictions prescribed for Stage 2 of the Plan.
- (c) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

Stage 2 Response -- MODERATE Water Shortage Conditions

Goal: Achieve a twenty percent (20-percent) reduction in daily water demand.

Supply Management Measures:

1. Reduce flushing of water mains.
2. Public will be informed as Stage 1 above.
3. The STEP I curtailment will be enacted.
4. Public will be advised of the trigger conditions daily.

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

- (a) Irrigation of landscaped areas with hose-end sprinklers or timed automatic irrigation systems shall be limited to the hours between 8:00 p.m. and 10:00 a.m. on designated watering days. However, irrigation of landscaped areas is permitted at anytime if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 8:00 a.m. to 10:00 a.m. and between 6:00 p.m. and 10:00 p.m. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rises. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public is contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.
- (c) Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or jacuzzi-type pools is prohibited except on designated watering days between the hours of between 8:00 p.m. and 10:00 a.m.
- (d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
- (e) Use of water from hydrants shall be limited to fire fighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that

use of water from designated fire hydrants for construction purposes may be allowed under special permit from the CITY OF ELDORADO.

- (f) Use of water for the irrigation of golf course greens, tees, and fairways is prohibited except on designated watering days between the hours 8:00 p.m. and 10:00 a.m. However, if the golf course utilizes a water source other than that provided by the CITY OF ELDORADO, the facility shall not be subject to these regulations.

- (g) The following uses of water are defined as non-essential and are prohibited:

1. wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
2. use of water to wash down buildings or structures for purposes other than immediate fire protection;
3. use of water for dust control;
4. flushing gutters or permitting water to run or accumulate in any gutter or street; and
5. failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

Stage 3 Response -- SEVERE Water Shortage Conditions

Goal: Achieve a thirty percent (30-percent) reduction in daily water demand.

Supply Management Measures:

1. Discontinue providing reduced rate water to all persons, including CITY COUNCIL members, CITY employees, retire CITY employees and Volunteer Firefighters and Ambulance Service Volunteers; Discontinue providing free or reduced rate water to all other locations; Restrict flushing of water mains that required by TCEQ regulations; Limit irrigation of public landscaped areas; Study possible sites for additional supply well(s).
2. Public will be informed as mentioned above.
3. The STEP II curtailment will be enacted.
4. Certain industrial and commercial water users, which are not essential to the health and safety of the community, will be prohibited from water usage.
5. Public will be advised of the trigger conditions daily.

Water Use Restrictions. Under threat of penalty for violation, the following water use restrictions shall apply to all persons. All requirements of Stage 2 shall remain in effect during Stage 3 except:

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

all times.

- (b) The watering of golf course tees is prohibited unless the golf course utilizes a water source other than that provided by the CITY OF ELDORADO.
- (c) The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.

Stage 4 Response -- CRITICAL Water Shortage Conditions

Goal: Achieve a forty percent (40-percent) reduction in daily water demand.

Supply Management Measures:

- 1. Public will be informed as mentioned above.
- 2. The STEP II curtailment will be enacted.
- 3. Certain industrial and commercial water users, which are not essential to the health and safety of the community, will be prohibited from water usage.
- 4. Public will be advised of the trigger conditions daily.

Additional Supply Management Measures: Adopt water rates 1.5 times the CITY's normal water rate including minimum and per gallon charges; Drill additional supply well(s).

Water Use Restrictions. Under threat of penalty for violation, the following water use restrictions shall apply to all persons. All requirements of Stage 2 and 3 shall remain in effect during Stage 4 except:

- (a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 6:00 a.m. and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets (less than five (5) gallons), or drip irrigation only. The use of hose-end sprinklers or permanently installed timed or untimed automatic sprinkler systems are prohibited at all times.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6:00 a.m. and 10:00 a.m. and between 6:00 p.m. and 10:00 p.m.
- (c) The filling, refilling, or adding of water to swimming pools, wading pools, and jacuzzi-type pools is prohibited.
- (d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains

or ponds are equipped with a recirculation system.

- (e) No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

Stage 5 Response -- EMERGENCY Water Shortage Conditions

Goal: Achieve a fifty percent (50-percent) reduction in daily water demand.

Supply Management Measures:

1. Adopt water rates that are 2 times the CITY's normal water rate including minimum and per gallon charges; Drill additional supply well(s); seek alternative supply source(s).
2. Public will be informed as mentioned above.
3. The STEP II curtailment will be enacted.
4. Certain industrial and commercial water users, which are not essential to the health and safety of the community, will be prohibited from water usage.
5. Public will be advised of the trigger conditions daily

Water Use Restrictions. Under threat of penalty for violation, the following water use restrictions shall apply to all persons. All requirements of Stage 2, 3, and 4 shall remain in effect during Stage 5 except:

- (a) Irrigation of landscaped areas is absolutely prohibited.
- (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle is absolutely prohibited.

Stage 6 Response -- WATER ALLOCATION

In the event that water shortage conditions threaten public health, safety and welfare, the MAYOR is hereby authorized to allocate water according to the following water Allocation Plan.

Single-Family Residential Customers

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

Persons per Household Gallons per Month	
1 or 2	6,000
3 or 4	7,000
5 or 6	8,000
7 or 8	9,000
9 or 10	10,000
11 or more	12,000

“Household” means the residential premises served by the customer’s meter. “Persons per household” includes only those persons currently physically residing at the premises and expected to reside there for the entire billing period. It shall be assumed that a particular customer’s household is comprised of two (2) persons unless the customer notifies the CITY of a greater number of persons per household on a form prescribed by the MAYOR. The MAYOR shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every residential customer. If, however, a customer does not receive such a form, it shall be the customer’s responsibility to go to CITY Hall to complete and sign the form claiming more than two (2) persons per household. New customers may claim more persons per household at the time of applying for water service on the form prescribed by the MAYOR. When the number of persons per household increases to place the customer in a different allocation category, the customer may notify the CITY on such form and the change will be implemented in the next practicable billing period. If the number of persons in a household is reduced, the customer shall notify the CITY in writing within two (2) days. In prescribing the method for claiming more than two (2) persons per household, the MAYOR shall adopt methods to insure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of persons in a household or fails to timely notify the CITY of a reduction in the number of person in a household shall be fined not less than FIFTY DOLLARS (\$50.00).

Residential water customers shall pay the following surcharges:

- \$2.00 for the first 1,000 gallons over allocation.
- \$4.00 for the second 1,000 gallons over allocation.
- \$6.00 for each additional 1,000 gallons over allocation.

Surcharges shall be cumulative.

Master-Metered Multi-Family Residential Customers

The allocation to a customer, billed from a master meter, which jointly measures water to multiple permanent residential dwelling units (e.g., apartments, mobile homes) shall be allocated 6,000 gallons per month for each dwelling unit. It shall be assumed that such a customer’s meter serves two dwelling units unless the customer notifies the CITY of a greater number on a form prescribed by the MAYOR. The MAYOR shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every such customer. If, however, a customer

does not receive such a form, it shall be the customer's responsibility to go to CITY HALL to complete and sign the form claiming more than two (2) dwellings. A dwelling unit may be claimed under this provision whether it is occupied or not. New customers may claim more dwelling units at the time of applying for water service on the form prescribed by the MAYOR. If the number of dwelling units served by a master meter is reduced, the customer shall notify the CITY in writing within two (2) days. In prescribing the method for claiming more than two (2) dwelling units, the MAYOR shall adopt methods to insure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of dwelling units served by a master meter or fails to timely notify the CITY of a reduction in the number of person in a household shall be fined not less than FIFTY DOLLARS (\$50.00). Customers billed from a master meter under this provision shall pay the following monthly surcharges:

- \$2.00 for 1,000 gallons over allocation up through 1,000 gallons for each dwelling unit.
- \$4.00, thereafter, for each additional 1,000 gallons over allocation up through a second 1,000 gallons for each dwelling unit.
- \$6.00, thereafter, for each additional 1,000 gallons over allocation up through a third 1,000 gallons for each dwelling unit.

Surcharges shall be cumulative.

Commercial Customers

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

- \$2.00 per thousand gallons for the first 10,000 gallons over allocation.
- \$4.00 per thousand gallons for the second 10,000 gallons over allocation.
- \$6.00 per thousand gallons for each additional 1,000 gallons over allocation.

The surcharges shall be cumulative.



Industrial Customers

The MAYOR, or his/her designee, shall establish a monthly water allocation for each industrial customer using water for processing purposes. The industrial customer's allocation shall be approximately 90 PERCENT of the customer's water usage baseline. Ninety (90) days after the initial imposition of the allocation for industrial customers, the industrial customer's allocation shall be further reduced to 80 PERCENT of the customer's water usage baseline. The industrial customer's water use baseline will be computed on the average water use for the 24-MONTH period ending prior to the date of implementation of Stage 2 of the Plan. If the industrial water customer's billing history is shorter than 24 MONTHS, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exists. The MAYOR shall give his/her best effort to see that notice of each industrial customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the CITY to determine the allocation, and the allocation shall be fully effective notwithstanding the lack of receipt of written notice. Upon request of the customer or at the initiative of the MAYOR, the allocation may be reduced or increased, (1) if the designated period does not accurately reflect the customer's normal water use because the customer had shutdown a major processing unit for repair or overhaul during the period, (2) the customer has added or is in the process of adding significant additional processing capacity, (3) the customer has shutdown or significantly reduced the production of a major processing unit, (4) the customer has previously implemented significant permanent water conservation measures such that the ability to further reduce water use is limited, (5) the customer agrees to transfer part of its allocation to another industrial customer, or (6) if other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the ELDORADO CITY COUNCIL. Industrial customers shall pay the following surcharges:

- \$2.00 per thousand gallons for the first 100,000 gallons over allocation.
- \$4.00 per thousand gallons for the second 100,000 gallons over allocation.
- \$6.00 per thousand gallons for each additional 1,000 gallons over allocation.

The surcharges shall be cumulative.

Section X: Enforcement

- (a) No person shall knowingly or intentionally allow the use of water from the CITY OF ELDORADO for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by the MAYOR, or his/her designee, in accordance with provisions of this Plan.
- (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 FIFTY DOLLARS (\$50.00) and not more than FIVE HUNDRED DOLLARS (\$500.00). 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 (3) or more distinct violations of this Plan, the MAYOR shall, upon due notice to the

customer, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of a re-connection charge, hereby established at FIFTY DOLLARS (\$50.00), and any other costs incurred by the CITY OF ELDORADO in discontinuing service. In addition, suitable assurance must be given to the MAYOR 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 ELDORADO, in apparent control of the property where a violation occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the person's property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation, but any such person shall have the right to show that he/she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children and proof that a violation, committed by a child, occurred on property within the parents' control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she had previously directed the child not to use the water as it was used in violation of this Plan and that the parent could not have reasonably known of the violation.
- (d) Any employee of the CITY OF ELDORADO, law enforcement officer, or other Individual designated by the MAYOR, may issue a citation to a person he/she reasonably believes to be in violation of this Ordinance. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if known, the offense charged, and shall direct him/her to appear in the ELDORADO MUNICIPAL COURT on the date shown on the citation for which the date shall not be less than 3 days nor more than 5 days from the date the citation was issued. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of a violator, or to a person over 14 years of age who is a member of the violator's immediate family or is a resident of the violator's residence. The alleged violator shall appear in the ELDORADO 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 ELDORADO MUNICIPAL COURT, a warrant for his/her arrest may be issued. A summons to appear may be issued in lieu of an arrest warrant.

Section XI: Variances

The MAYOR, or his/her designee, may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency 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 condition for which the Plan is in effect.

- (b) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the CITY within 5 days after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the MAYOR, or his/her 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 shall be subject to the following conditions, unless waived or modified by the MAYOR or his/her designee:

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

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

Appendix A
Water Conservation Utility Profile
TWDB Form 1965





TEXAS WATER DEVELOPMENT BOARD
UTILITY PROFILE (TWDB - 1965)
(Formerly WRD 264)

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* (TWDB-1968) for information on other water conservation plan provisions. You may contact the Municipal Water Conservation Unit of the TWDB at 512.463.7955 or wcpteam@twdb.state.tx.us for assistance.

APPLICANT DATA

Name of Utility: City of Eldorado

Public Water Supply Identification Number (PWS ID): 2070001

Address: P.O. Box 713 City: Eldorado

State: TX Zip Code: 76936 Email: cityofeldorado@gmail.com

Telephone Number: (325) 853-2691 Fax: (325) 853-3353

Regional Water Planning Group: F

Groundwater Conservation District: Plateau Underground Water Conservation Supply District

Form Completed By: Adam M. Luke, P.E. Title: Project Engineer

Signature: *Adam M. Luke* Date: 4/8/11

Contact information for the person or department responsible for implementing the water conservation program:

Name: Mr. Floyd Fay Phone: (325) 650-0587

Email: _____

UTILITY DATA

A. Population and Service Area Data

1. Current population of service area: 1,951

2. Current population served by utility: Water: 2,090

Wastewater: 1,800

3. Population served by water utility for the previous five years starting with the most recent year:

Year	Population
2010	1,951
2009	1,922
2008	1,945
2007	1,980
2006	2,001

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

Year	Population
2010	2,077
2020	2,228
2030	2,510
2040	2,639
2050	2,691

5. List source(s)/method(s) for the calculation of current and projected population:

U.S. Census - American Fact Finder
 2011 TWDB Regional Water Plan City Projections
 Carolyn Mayo, City Secretary

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 ☐

Water User Type*	Metered	Un-metered	Total
Residential Single Family	799	0	799
Residential Multi-family	45	0	45
Commercial/Institutional	129	0	129
Industrial	0	0	0
Other (please describe):			0

* See Appendix A #1.

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

Water User Type*	2010	2009	2008
Residential Single Family	3	6	1
Residential Multi-family	0	0	0
Commercial/Institutional	0	1	1
Industrial	0	0	0
Other (please describe):			
Public	1	1	0

* See Appendix A #1.

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	Water User Type*	Annual Water Use (in gallons)	Treated	Raw
Schleicher County ISD	Commercial/Institutional	9,745	☒	☐
Schleicher County	Commercial/Institutional	4,872	☒	☐
Eldorado Housing Authority	Residential - Multi-Family	1,899	☒	☐
FNB of Eldorado	Commercial/Institutional	1,051	☒	☐
Schleicher County Medical Center	Commercial/Institutional	951	☒	☐

* See Appendix A #1

D. Water Supply System

- Design daily capacity of system: 1,956,500 gallons per day
- Storage Capacity: Elevated 100,000 gallons per day
Ground 500,000 gallons per day
- If surface water, do you recycle filter backwash to the head of the plant?
Yes ☐ No ☐. If yes, approximately _____ gallons per day.

E. Water Accounting Data

- Amount of water use in gallons for previous five years.
Please indicate whether: Treated Water ☒ or Raw Water ☐

YEAR	2010	2009	2008	2007	2006
January	6,494	7,449	6,063	7,031	7,584
February	5,406	8,371	8,751	6,577	8,158
March	4,702	9,301	8,201	7,067	8,014
April	7,764	10,082	8,743	7,145	8,693
May	8,669	8,377	13,142	8,157	10,942
June	13,809	10,162	21,144	6,618	21,430
July	14,545	19,574	15,777	7,492	18,362
August	17,281	14,678	21,991	12,542	19,429
September	13,718	16,449	11,805	8,751	11,354
October	11,336	8,844	10,262	9,702	11,242
November	9,832	6,847	9,522	9,908	8,784
December	7,902	6,274	6,725	6,487	7,422
TOTAL	121,457	126,408	142,127	97,477	141,412

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).

Information was collected from a Master Meter at each well site.

2. Amount of water sold in gallons as recorded by Water User Type for the previous five years (See Appendix A #1)

Year	Residential Single Family	Residential Multi Family	Commercial/ Institutional	Industrial	Other	Wholesale	Total Sold
2010					108,292		108,292
2009					115,363		115,363
2008					128,341		128,341
2007					92,027		92,027
2006					132,010		132,010

3. GPCD and Seasonal Water Use for the previous five years

Year	Population	Total Water Use	Total gallons per capita per day (GPCD)*	Residential GPCD**	SEASONAL WATER USE***	
					Winter per capita per day	Summer per capita per day
2010	1,951	121,457	0	0	0	0
2009	1,922	126,408	0	0	0	0
2008	1,945	142,127	0	0	0	0
2007	1,980	97,477	0	0	0	0
2006	2,001	141,412	0	0	0	0
Five Year Average	1,960	125,776	0	0	0	0

* Total GPCD (See Appendix A #2):

** Residential GPCD (See Appendix A #3):

*** Seasonal Water Use (See Appendix A #4)

4. Water Loss Data for the previous five years (See Appendix A #5)

Year	Water Loss expressed in gallons	Water Loss expressed in GPCD	Water Loss expressed as a percentage
2010	29,415	0	24.22%
2009	33,209	0	26.27%
2008	25,331	0	17.82%
2007	31,844	0	32.67%
2006	13,661	0	9.66%
Five Year Average	26,692	0	22.13%

5. Peak Day Use (in gallons) to Average Daily Use (in gallons) Ratio for the previous five years
(See Appendix A #6)

Year	Average Daily Use	Peak Day Use	Ratio
2010	333	1,103	3.31
2009	346	1,992	5.75
2008	389	1,092	2.80
2007	267	882	3.30
2006	387	1,098	2.83

F. Projected Demands

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

Year	Population	Water Demand (in gallons)
2010		189,319,683
2011		191,372,547
2012		193,425,411
2013		195,478,275
2014		197,531,139

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

Demands are based on the TWDB 2011 Regional Water Plan City Water Demand Projections for 2010-2060.

G. Wastewater System Data

1. Design capacity of wastewater treatment plant(s): 385,000 gallons per day
2. Is treated effluent used for:

Use	Total Annual Volume (in gallons)
On-site irrigation	
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Other (please describe):	

Could treated effluent be substituted for certain potable water now being used? Yes ☐ No ☒

H. Wastewater Data for Service Area

1. Percent of water service area served by wastewater system: 93 %
2. Monthly wastewater volume in gallons, treated for previous five years.

YEAR	2010	2009	2008	2007	2006
January	1,042	4,523	3,719		
February	1,105	2,870	3,248		
March	1,156	3,497	3,522		
April	4,810	3,133	5,998		
May	4,112	1,579	4,962		
June	4,667	1,658	4,622		
July	4,710	1,693	3,952		
August	3,044	1,781	4,247		
September	1,412	1,641	3,699		
October	4,069	1,259	4,240		
November	3,621	1,059	6,212		
December	3,305	1,231	3,950		
TOTAL	37,053	25,924	52,371	0	0

Submit Form by Email

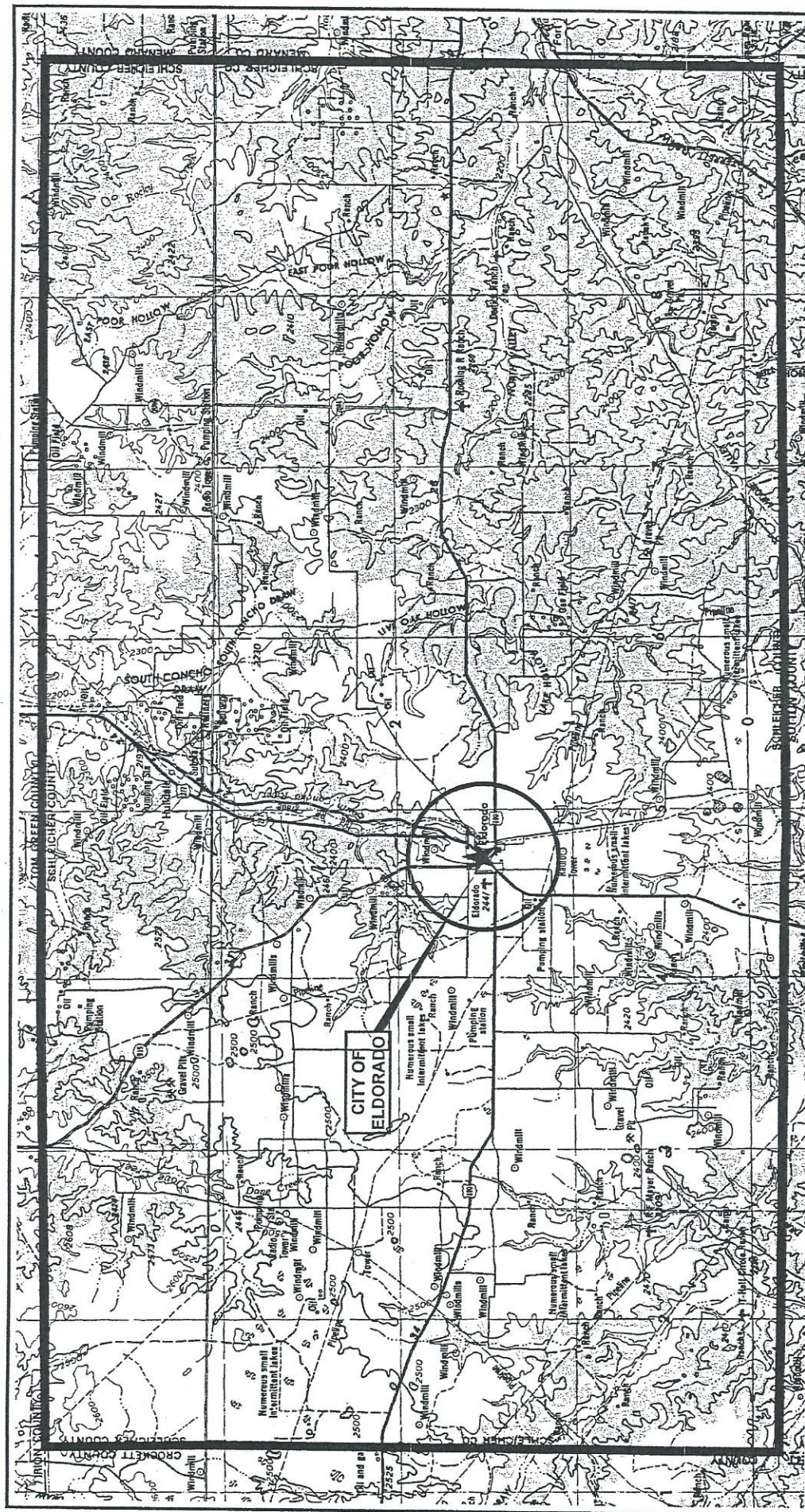
Print Form

Reset Form

Appendix A

Definitions of Utility Profile Terms

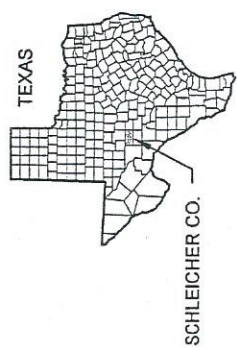
1. **Residential – Single Family** should include water sold to single family and duplexes.
Residential – Multi-Family should include water sold to this class of customers only.
Commercial/Institutional sales should include water sold to retail businesses, offices, hospitals, etc.
Industrial sales should include water sold to manufacturing and other heavy industry.
Wholesale sales should include water sold to another utility for resale to the public.
Other water sales should be noted as necessary.
2. **Total use in gallons per capita per day** is defined as total average daily amount of water treated or raw water provided for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment by population served. 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 treated or raw water.
3. **Residential use in gallons per capita per day** is calculated by dividing the total single family plus multi-family residential water sales by the population served and then dividing by 365.
4. **Seasonal water use** is the difference between winter daily per capita use and summer daily per capita use. To calculate the **winter daily per capita use**, add the monthly diversions for December, January, and February, and divide by 90. Then divide this figure by the population. To calculate the **summer daily per capita use**, use the months of June, July, and August.
5. **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 use, metered and unmetered, such as firefighting, line flushing, and water for public buildings and water treatment plants. Water loss can result from:
 1. Inaccurate or incomplete record keeping;
 2. Meter error;
 3. Leaks; and
 4. Water theft and unauthorized use.
6. The **peak-day to average-day ratio** is calculated by dividing the maximum daily pumpage by the average daily pumpage. Average daily pumpage is the total pumpage for the year divided by 365.



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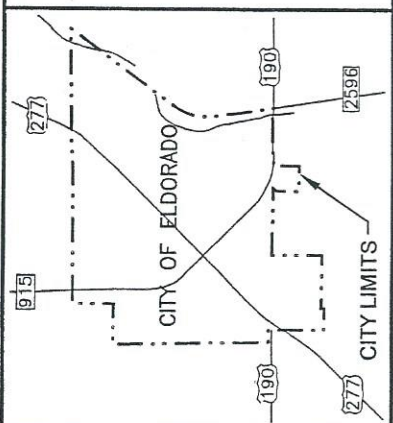
FIGURE 1
GENERAL LOCATION MAP
CITY OF ELDORADO
SCHLEICHER COUNTY, TEXAS

Drawn By:	RPS	Appr. By:	FRC	Scale:	N.T.S.	Dwg. NO.:	8627A01	Sheet
Checked By:	FRC	Project No.:	8627	Date:	09/12/11	Rev.:	09/12/11	of

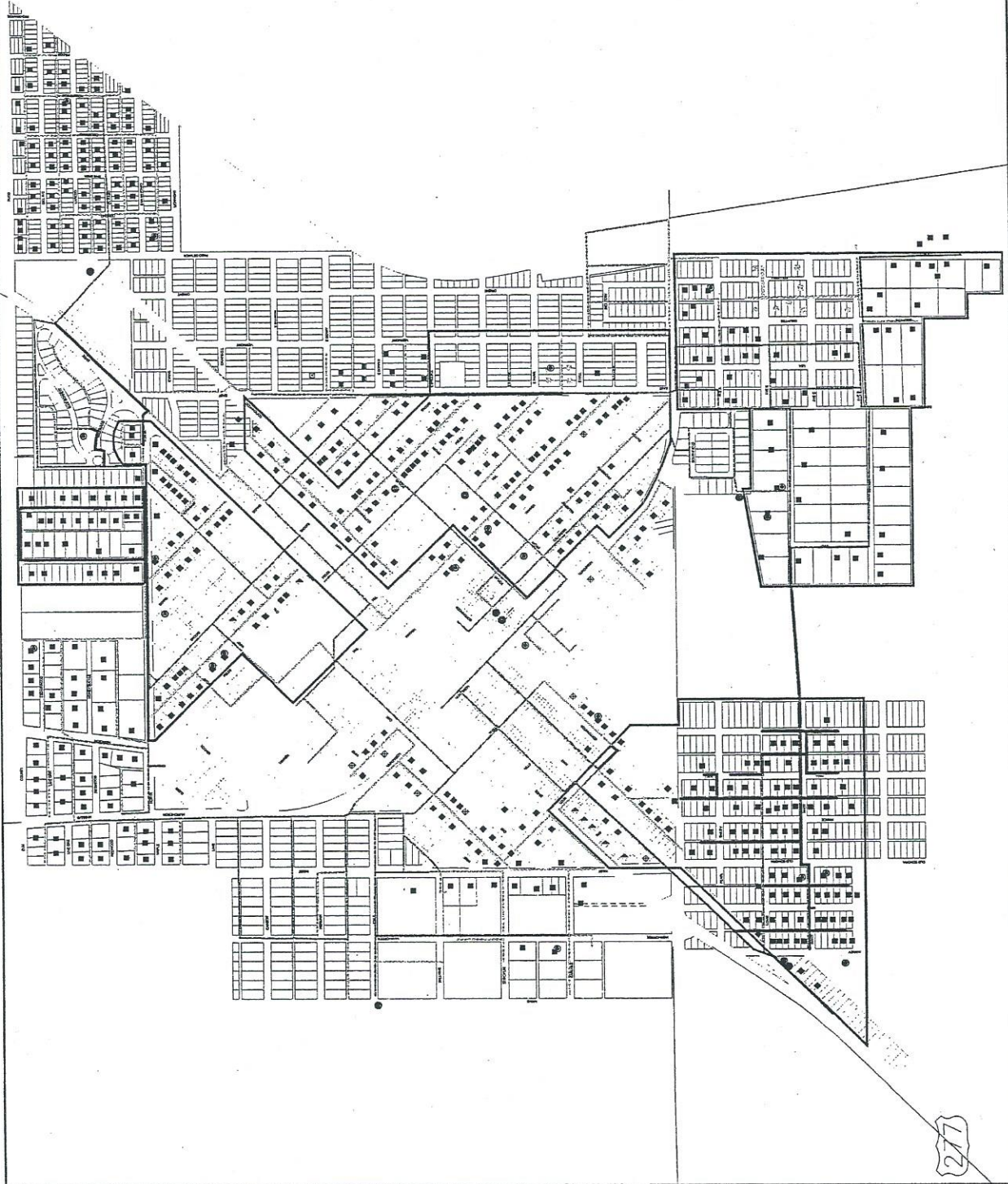


NOT TO SCALE

Map Source: USGS 250k Maps - SAN ANGELO & SONORA.



Map Source: Existing City of Eldorado, Water System Map, SA Engineering, Dec. 1985.



LEGEND

EXISTING WATERLINES

- EXISTING 2" WATERLINE
- EXISTING 3" WATERLINE
- EXISTING 4" WATERLINE
- EXISTING 6" WATERLINE
- EXISTING 8" WATERLINE

- RESIDENTIAL UNIT NOT PART OF PROPOSED IMPROVEMENTS
- COMMERCIAL UNIT NOT PART OF PROPOSED IMPROVEMENTS
- RESIDENTIAL UNIT NOT EDAP ELIGIBLE
- RESIDENTIAL UNIT
- COMMERCIAL UNIT
- COMPLAINT (FILED WITH CITY IN FALL 2009)
- ELEVATED STORAGE TANK
- WATER WELL

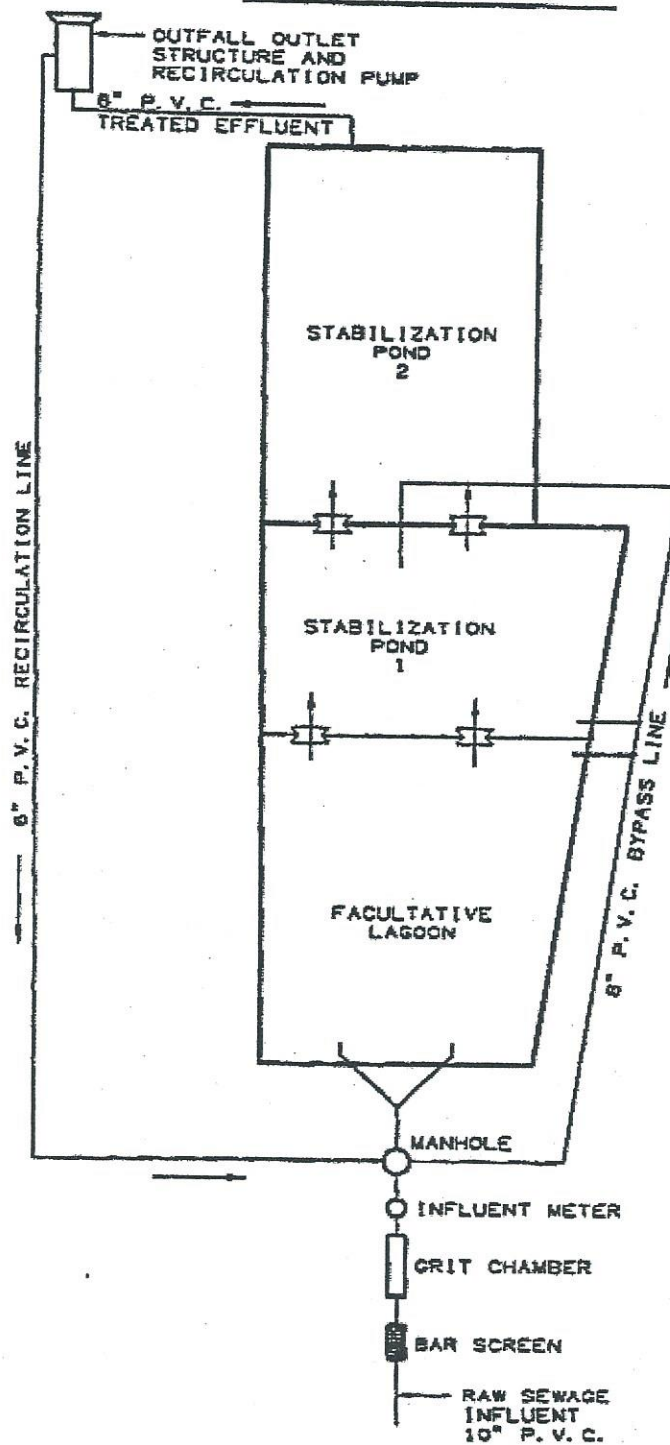
NEI Naismith Engineering, Inc.
ENGINEERING & ENVIRONMENTAL SURVEYING
TYPE REGISTERED FIRM NO. F-335

FIGURE 2

CITY OF ELDORADO WATER SYSTEM
CITY OF ELDORADO
SCHLEICHER COUNTY, TEXAS

Drawn By: RPS	Check By: FRC	Scale: AS SHOWN	Drawn No: 8827001	Drawn Date: 09/12/11
Project No: 8827	Project No: 8827	Project No: 8827	Project No: 8827	Project No: 8827

ELDORADO WWTP



FLOW DIAGRAM
WASTEWATER TREATMENT PLANT
CITY OF ELDORADO, TEXAS



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FIGURE 3

CITY OF ELDORADO WWTP LAYOUT
CITY OF ELDORADO
SCHLEICHER COUNTY, TEXAS

Appendix B
Water Conservation Program Annual Report
TWDB Form WRD-265



Appendix D
Schedule and Tracking Form

