



DROUGHT CONTINGENCY & WATER CONSERVATION PLAN 2014

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Updated by:



with the assistance of City of Vernon Water Department personnel.

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INTRODUCTION

The City of Vernon is the county seat of Wilbarger County, Texas. The residential population is 11,005 and the permanent population served, including wholesale customers, is 12,500. Currently, the City serves 4,298 metered connections.

The source of water for the City of Vernon is 100% groundwater from the Seymour Aquifer. The City operates 4 well fields (Winston, Odell, Schmoker, and Orbison Park) totaling 40 individual wells. The City primarily produces water from the Winston and Odell well fields for municipal uses. The Schmoker well field is used seasonally to supply some industrial uses. The Orbison Park field is used for emergencies only. Normal production capacity is 8,000,000 gallons per day.

Single-family residential and industrial uses are the primary water use sectors for the City. In 2012, 45% of the City's metered retail water use was for single-family residential and 38% was for industrial use. The remaining 17% was commercial, and institutional uses. There are no agricultural uses of water produced by the City.

The City of Vernon also provides wholesale water to Northside WSC, Paradise Water Supply, Lockett Water System, Oklaunion WSC, Box Community Water System, and Hinds Wildcat Water System. Wholesale use represents less than 10% of water produced.



DROUGHT CONTINGENCY PLAN

Drought Contingency Plan--A strategy or combination of strategies for temporary supply and demand management responses to temporary and potentially recurring water supply shortages and other water supply emergencies.

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 Vernon hereby adopts the following regulations and restrictions on the delivery and consumption of water by City Ordinance.

Water uses regulated or prohibited under this Drought Contingency Plan are considered to be non-essential or discretionary 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 the Enforcement of Drought Contingency Plan section of this Plan.

AUTHORIZATION

The City Manager 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 City Manager 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.

APPLICATION

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

PUBLIC INVOLVEMENT

Opportunity for the public to provide input into the preparation and subsequent revisions of this Plan is provided by the City of Vernon by means of:

- City Commission meetings
- Direct mailing and email
- Phone
- Personal correspondence

PUBLIC EDUCATION (DROUGHT)

The City of Vernon will periodically provide the public with information about this Drought Contingency Plan, including information and/or notification 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. Water conservation tips and information will also be provided. This information will be provided by means of:

- Posting a Notice of Drought Conditions at the City Hall
- General circulation to newspapers
- Notifying local radio and television stations
- Handouts to customers, schools, civic groups, and clubs upon request
- The plan will be posted on the City’s website and Social Media

A copy of this Plan will be available at the City Hall during business hours. The Plan will also be available electronically.

WATERING SCHEDULE

THE CITY OF VERNON WATERING SCHEDULE				
ADDRESS ENDING IN:				
STAGE	COMPLIANCE	HOURS	ODD #	EVEN #
1	Voluntary	8PM-10AM	Mon/Wed/Fri	Tue/Thu/Sat
2	Voluntary	8PM-10AM	Mon/Wed	Tue/Thu
3	Mandatory	8PM-10AM	Mon/Wed	Tue/Thu
4	Mandatory	8PM-10AM	Monday	Thursday
5	Mandatory	NONE	No watering	No watering

DROUGHT TRIGGERS AND RESPONSES

The City Manager or his/her 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. During times of high demand or distribution limitations, the City Manager or his/her designee may implement the appropriate Drought Response Stage. The City shall notify the public by the means of notification described in the Public Education section of this plan.

The City of Vernon's watering restrictions apply to all residential, commercial, industrial, institutional, and wholesale accounts, including private water well users. All City of Vernon water users will be asked to save, or cut back, a corresponding percentage in each drought stage based upon the usage from their water bill for the same period of the last year of normal conditions. At no time will customers using less and 135 gallons per customer per day (GPCD) be subject to surcharges or penalties for water usage.

During times when this Drought Contingency Plan is in effect, water customers are requested to continue to practice water conservation and to minimize or discontinue water use for non-essential or discretionary purposes. It is a violation of this Plan for any person, firm, corporation, or entity to irrigate landscapes at prohibited times during drought conditions.

As appropriate, the City Manager or his/her designee shall notify of stages directly, or cause to be notified directly, the following individuals and entities:

- City Fire Chief
- City/County Emergency Management Coordinators
- Municipal Court Judge
- County Judge
- DPS, Division of Emergency Management, (512) 424-2208
- TCEQ, Water Supply Division, (512) 239-4697

STAGE 1 – Mild Water Shortage Condition

Requirements for initiation: Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses listed below when low aquifer levels result in a 15% loss of normal production capability or pumping capacity* (6,800,000 gallons per day (GPD) for a 24 hour period) from the City's Winston/Odell and Schmoker water well fields for a period of forty five (45) days.

* Normal production capability or pumping capacity is 8,000,000 GPD for a period of 24 hours.

Requirements for termination: Stage 1 of this Plan may be rescinded when the aquifer level increases back to normal capacity for a period of forty five (45) days.

Target for water-use reduction: Achieve a 15% reduction in total water use as compared to three-year average usage prior to latest drought condition through increased public awareness.

Voluntary Water-Use Restrictions:

- A. Water customers are requested to comply with the City of Vernon's Stage 1 Watering Schedule. Customers with odd numbered addresses may only water Mon/Wed/Fri and customers with even numbered addresses may only water Tue/Thu/Sat. Landscape irrigation may only occur from 8:00PM to 10:00AM. No watering on Sunday;
- B. Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes;
- C. The City of Vernon will curtail flushing of distribution lines except when necessary to protect the health and welfare of the public;
- D. The City of Vernon will limit watering of public areas to the hours between 7:00AM and 10:00AM;
- E. The City Manager, or his/her designee, will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate Stage 1 voluntary measures to reduce water use by 15%.

STAGE 2 – Moderate Water Shortage Conditions

Requirements for initiation: Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses listed below when low aquifer levels result in a 20% loss of normal production capability or pumping capacity* (6,400,000 GPD for a 24 hour period) from the City's Winston/Odell and Schmoker water well fields for a period of forty five (45) days.

* Normal production capability or pumping capacity is 8,000,000 GPD for a period of 24 hours.

Requirements for termination: Stage 2 of this Plan may be rescinded when the aquifer level increases back to Stage 1 or normal capacity for a period of forty five (45) days.

Target for water-use reduction: Achieve a 20% reduction in total water use.

Voluntary Water-Use Restrictions:

- A. Water customers are requested to comply with the City of Vernon's Stage 2 Watering Schedule. Customers with odd numbered addresses may only water Mon/Wed and customers with even numbered addresses may only water Tue/Thu. Landscape irrigation may only occur from 8:00PM to 10:00AM;
- B. No landscape irrigation taps will be made;
- C. The City Manager, or his/her designee, will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate Stage 2 voluntary measures to reduce water use by 20%.

STAGE 3 – Severe Water Shortage Conditions

Requirements for initiation: Customers shall be required to adhere to the prescribed restrictions on certain water uses listed below when low aquifer levels result in a 25% loss of normal production capability or pumping capacity* (6,000,000 GPD for a 24 hour period) from the City's Winston/Odell and Schmoker water well fields for a period of forty five (45) days.

* Normal production capability or pumping capacity is 8,000,000 GPD for a period of 24 hours.

Requirements for termination: Stage 3 of this Plan may be rescinded when the aquifer level increases back to Stage 2, 1, or normal capacity for a period of forty five (45) days.

Target for water-use reduction: Achieve a 25% reduction in total water use.

Mandatory Water-Use Restrictions:

- A. Water customers are required to comply with the City of Vernon's Stage 3 Watering Schedule. Customers with odd numbered addresses may only water Mon/Wed and customers with even numbered addresses may only water Tue/Thu. Landscape irrigation may only occur from 8:00PM to 10:00AM;
- B. Washing of automobiles, trucks, trailers, boats, airplanes, or any other type of mobile equipment shall only occur on Tue/Thu/Sat from 8:00PM to 10:00AM;
 - a. Commercial car washes, detail shops, and car dealerships may request a variance;
 - b. Washing, when allowed, must be performed with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses;
 - c. This restriction does not apply to automobiles, trucks, trailers, boats, airplanes, or any other type of mobile equipment such as garbage trucks, vehicles transporting food or perishables, or emergency

vehicles when the washing is necessary on a more frequent basis in order to protect the health, safety, and welfare of the public;

- d. Charity car washes are prohibited;
- C. Use of water to fill, refill, or add to any indoor/outdoor swimming, wading, or Jacuzzi type pool is prohibited except on designated watering days from 8:00PM to 10:00AM;
- D. The washing of dwelling, office buildings, and/or industrial equipment or machinery is prohibited;
- E. The use of water for any ornamental or aesthetic water fountain or water feature is prohibited;
- F. The use of water for washing sidewalks, driveways, parking areas, streets, tennis courts, patios, or other paved or impervious areas, except to alleviate immediate health or fire hazards, is prohibited. Fast food restaurants may spot wash these areas;
- G. No fire hydrant meters will be used unless specifically approved by the City Manager or his/her designee;
- H. The City Manager, or his/her designee, will contact wholesale water customers to discuss water supply and/or demand conditions and will require that wholesale water customers initiate Stage 3 mandatory measures to reduce water use by 25%;
- I. Persons using private water wells for irrigation must post a sign visible from the street stating "water well";
- J. No person shall allow water from private wells or city sources to drain onto city streets or right-of-way in an amount causing damage to city property or in a manner that is perceived to be wasteful.

STAGE 4 – Critical Water Shortage Conditions

Requirements for initiation: Customers shall be required to adhere to the prescribed restrictions on certain water uses listed below when low aquifer levels result in a 30% loss of normal production capability or pumping capacity* (5,600,000 GPD for a 24 hour period) from the City's Winston/Odell and Schmoker water well fields for a period of forty five (45) days.

* Normal production capability or pumping capacity is 8,000,000 GPD for a period of 24 hours.

Requirements for termination: Stage 4 of this Plan may be rescinded when the aquifer level increases back to Stage 3, 2, 1, or normal capacity for a period of forty five (45) days.

Target for water-use reduction: Achieve a 30% reduction in total water use.

Mandatory Water-Use Restrictions:

- A. All requirements of Stage 3 shall remain in effect during Stage 4 (where Stage 3 and Stage 4 requirements conflict, Stage 4 prevails);
- B. Water customers are required to comply with the City of Vernon's Stage 4 Watering Schedule. Customers with odd numbered addresses may only water Mondays and customers with even numbered addresses may only water Thursdays. Landscape irrigation is limited to watering can, bucket, or hose end sprayer with shut-off nozzle only and may only occur from 8:00PM and 10:00AM. Outdoor irrigation with hose-end sprinklers and automatic sprinkler systems is prohibited. Irrigation utilizing drip systems and soaker hoses may be used to water trees and shrubs during designated times only. Water lawns by sprinklers is prohibited;
- C. Knowingly permitting the loss of water or failure to fix a known plumbing fixture leak is prohibited;
- D. All water using industries will be asked to curtail water by 30%;
- E. The City Manager, or his/her designee, will contact wholesale water customers to discuss water supply and/or demand conditions and will require that wholesale water customers initiate Stage 4 mandatory measures to reduce water use by 30%;
- F. Customers not meeting a 30% reduction may be subject to surcharges of up to 3X normal rates for usage amounts that exceed the 30% reduction level.

STAGE 5 – Emergency Water Shortage Conditions

Requirements for initiation: Customers shall be required to adhere to the prescribed restrictions on certain water uses listed below when low aquifer levels result in a 50% loss of normal production capability or pumping capacity* (4,000,000 GPD for a 24 hour period) from the City’s Winston/Odell and Schmoker water well fields for a period of forty five (45) days.

* Normal production capability or pumping capacity is 8,000,000 GPD for a period of 24 hours.

Requirements for termination: Stage 5 of this Plan may be rescinded when the aquifer level increases back to Stage 4, 3, 2, 1, or normal capacity for a period of forty five (45) days.

Target for water-use reduction: Achieve a 50% reduction in total water use.

Mandatory Water-Use Restrictions:

- A. All requirements of Stage 3 and 4 shall remain in effect during Stage 5 (where Stage 3/4 and Stage 5 requirements conflict, Stage 5 prevails);
- B. Water customers are required to comply with the City of Vernon’s Stage 5 Watering Schedule. All outdoor and non-essential water use is prohibited;
- C. The City Manager, or his/her designee, will contact wholesale water customers to discuss water supply and/or demand conditions and will require that wholesale water customers initiate Stage 5 mandatory measures to reduce water use by 50%;
- D. Customers not meeting a 50% reduction may be subject to surcharges of up to 3X normal rates for usage amounts that exceed the 50% reduction level;
- E. Additional emergency responses:
 - a. Emergency water shortage: In the event of an identified water shortage declaration, the City will distribute water to wholesale customers according to Texas Water Code, §11.039* and initiate water allocation to municipal water customers;
 - b. Supply source contamination: In the event of a contamination event, appropriate emergency procedures will be implemented and appropriate emergency response officials will be notified immediately;

- c. In the event of a backflow incident, loss of pressure, or an Acute Maximum Contaminant Level coliform violation, a Boiled Water Notice will be implemented as prescribed in 30 TAC Chapter 290;
- d. System outage due to the failure or damage of major water system components: In the event of a catastrophic failure due to natural or man-made events, appropriate emergency procedures will be implemented and appropriate emergency response officials will be notified as appropriate;
- e. Alternative Sources: In the event of an emergency loss of water supply, the city will consider purchasing water by the truckload or in bottles for the health and public safety of the City's residents.

The City of Vernon will include a provision in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code, §11.039*.

*** Texas Water Code, 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 Commission on Environmental Quality 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 Commission on Environmental Quality 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.

VARIANCES

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

1. 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.
2. 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 of Vernon after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by City Manager and Public Works Director and shall include the following:

1. Name and address of the petitioner(s).
2. Purpose of water use.
3. Specific provision(s) of the Plan from which the petitioner is requesting relief.
4. 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.
5. Description of the relief requested.
6. Period of time for which the variance is sought.
7. 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.
8. Other pertinent information.

The City Manager shall, within five days, notify petitioner as to whether the request is approved or denied. Decisions of the City Manager may be appealed to the City Commission.

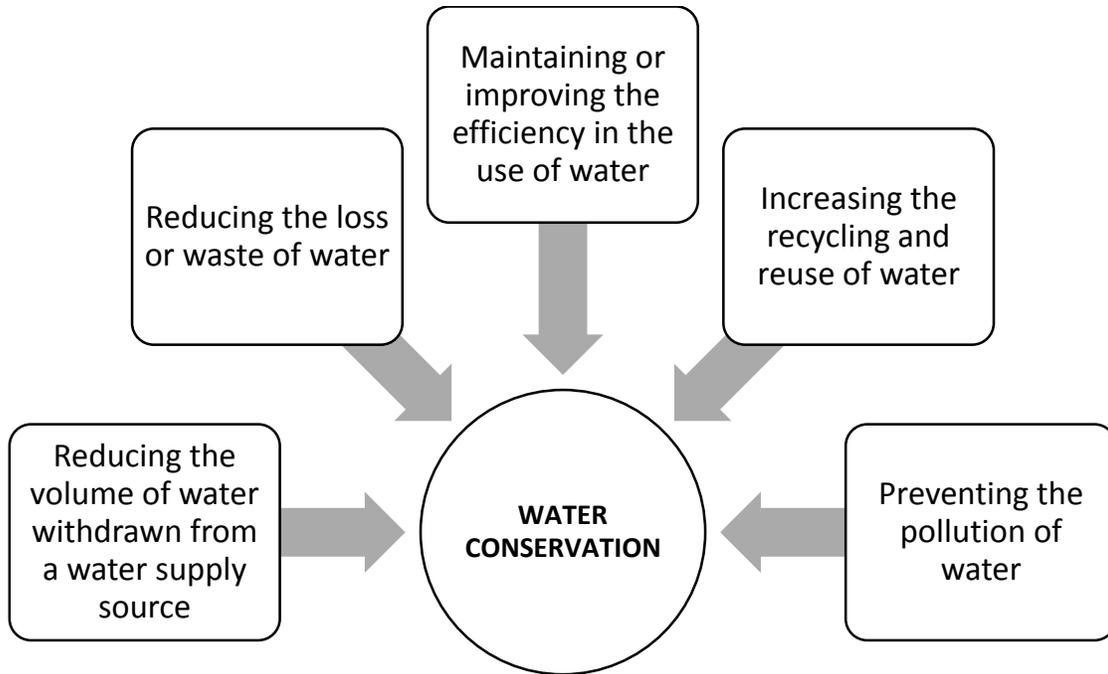
ENFORCEMENT

Enforcement

1. No person or entity shall knowingly or intentionally allow the use of water from the City of Vernon for residential, commercial, institutional, industrial, agricultural, governmental, recreational, wholesale, 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 City Manager or his/her designee, in accordance with provisions of this Plan;
2. A City of Vernon Water Department staff member designated by the City Manager or his/her designee, may issue a written Notice of Violation to a person or entity he/she reasonably believes to be in violation of this Plan. For subsequent violations following written notice:
 - a. The utility may issue a citation (Class C misdemeanor);
 - b. The utility may install a flow restricting device in the line to limit the amount of water which will pass through the meter in a 24-hour period. The utility may charge the customer for the actual cost of installing and removing the flow restricting device;
 - c. The utility may discontinue service at the meter for a period of seven (7) days, or until the end of the calendar month, whichever is LESS. The normal reconnect fee of the utility will apply for restoration of service;
3. Any water customer who violates this Plan is guilty of and may be charged with a misdemeanor and, upon conviction shall be punished by a fine of five hundred dollars (\$500.00) or as amended in ordinance. 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 or his/her designee shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of a re-

- connection charge and any other costs incurred by the City of Vernon in discontinuing service. In addition, suitable assurance must be documented with the City Manager or his/her designee that the same action shall not be repeated while the Plan is in effect. Compliance with this plan may also be sought through injunctive relief in the district court;
4. Any water customer of the City of Vernon, 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.

WATER CONSERVATION PLAN

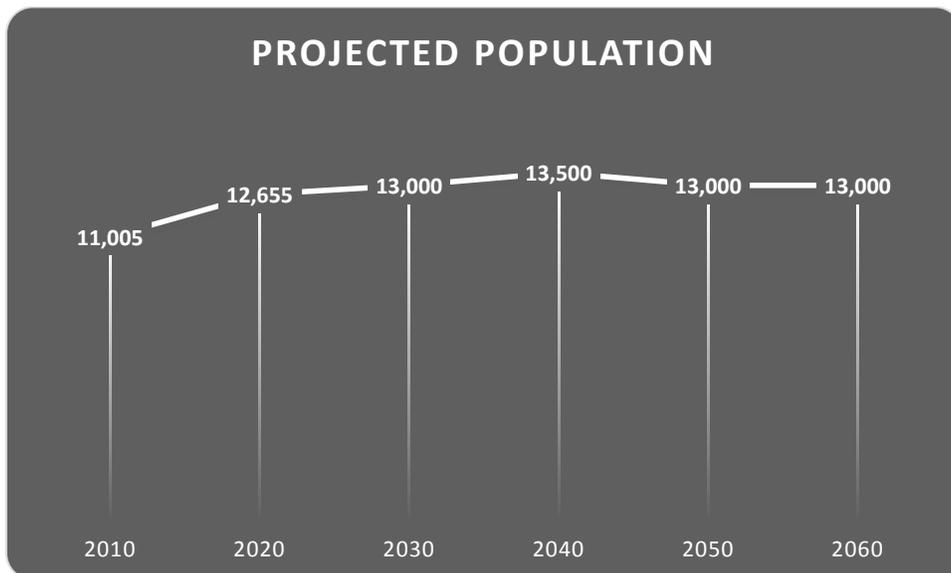
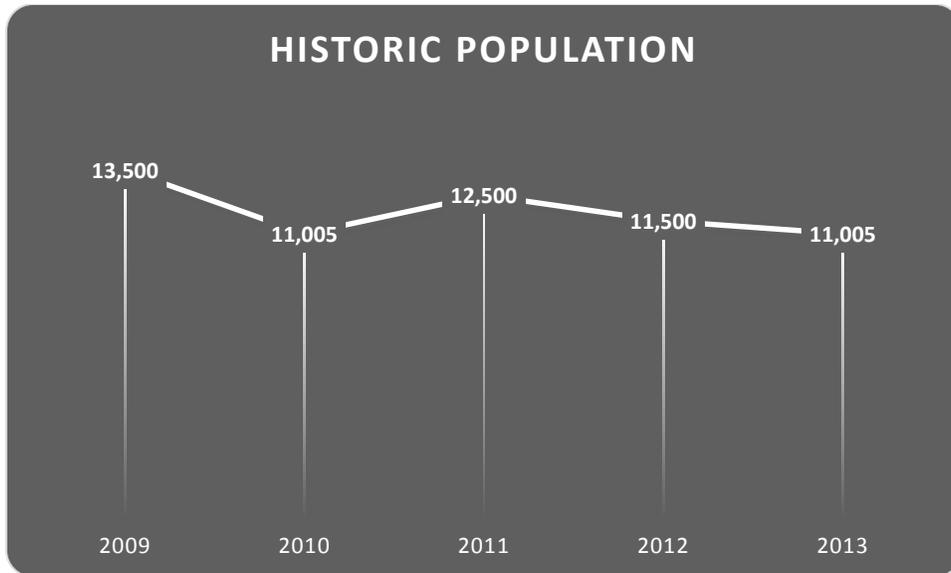


UTILITY PROFILE

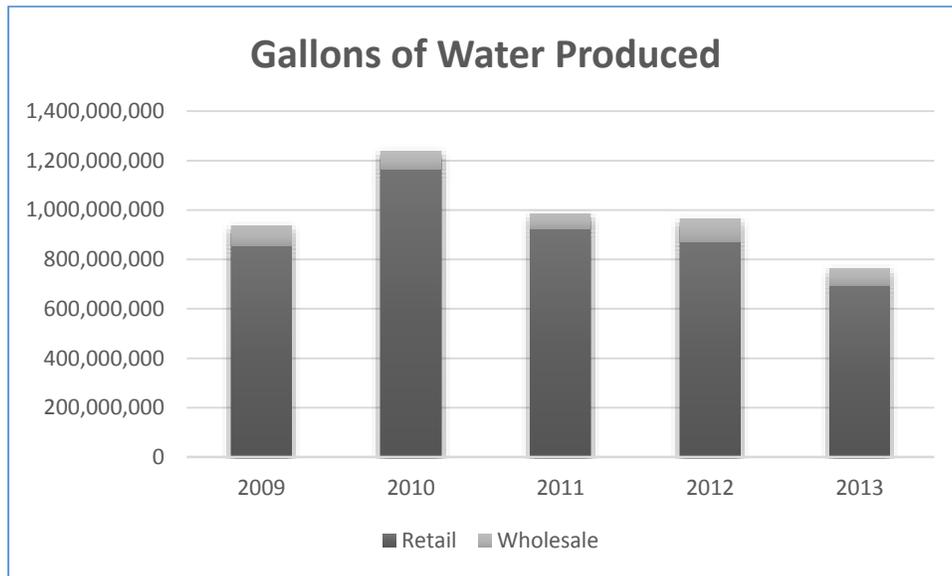
A completed TWDB Utility Profile can be found in Appendix C.

CCN#	10600
PWS#	2440001
WW ID#	WQ0010377001
RWPG	Region B Water Planning Group
COUNTY	Wilbarger
SERVICE AREA	8.1 Square Miles
WATER SOURCE	Seymour Aquifer
PRODUCTION CAPACITY	8.5 MGD
STORAGE CAPACITY	1 MG Elevated, 3MG Ground
WW CAPACITY	2 MGD

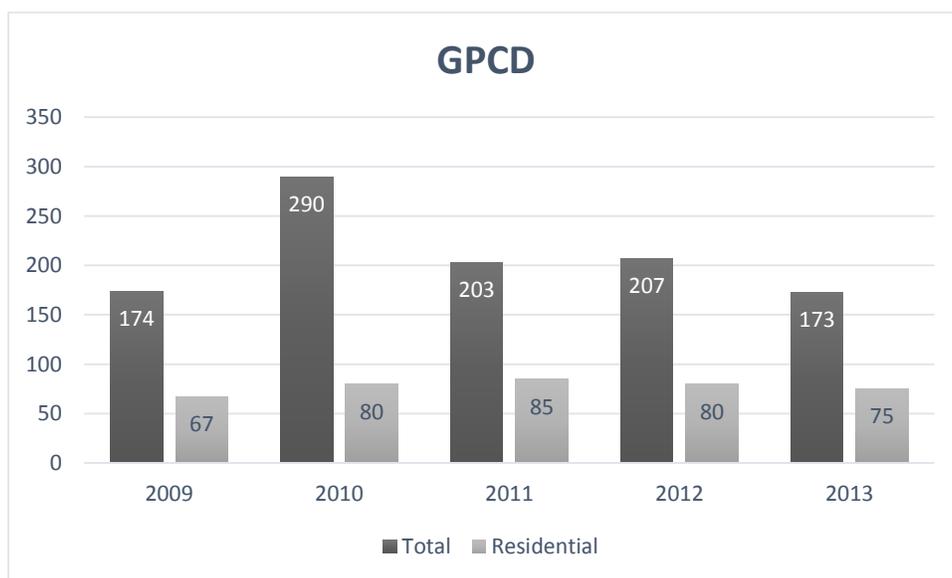
The population of a city is dependent upon many factors including economics and water availability. Despite a slight decline in population in recent years, the City expects to maintain a stable and slight incline in population over a 50 year planning horizon. The city is currently pursuing the development of additional water supplies.



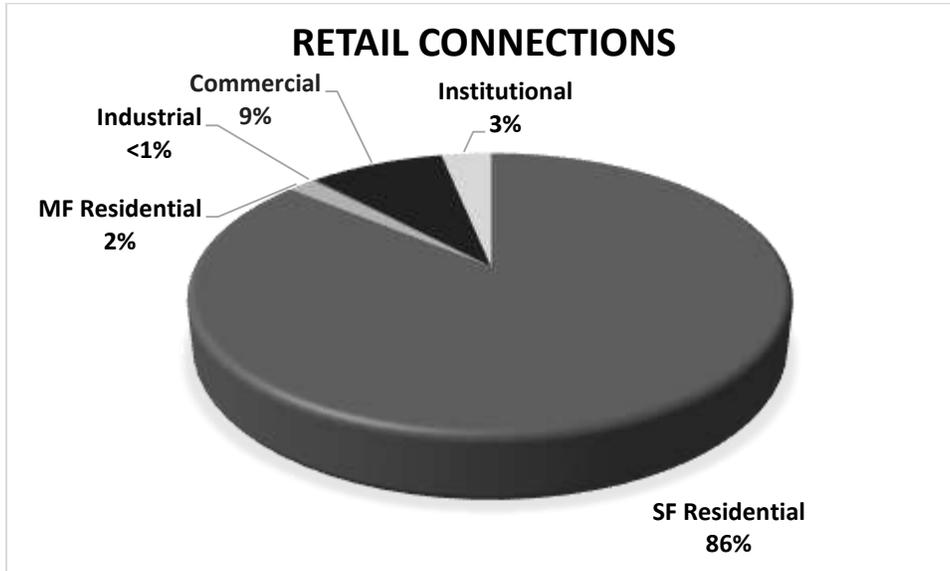
Over the previous 5 years, the City has averaged 976 million gallons of water produced annually from the Seymour Aquifer. Water sold to other retail providers (wholesale customers) represents less than 10% of the overall water produced. In 2013, the City produced 763 million gallons of water.



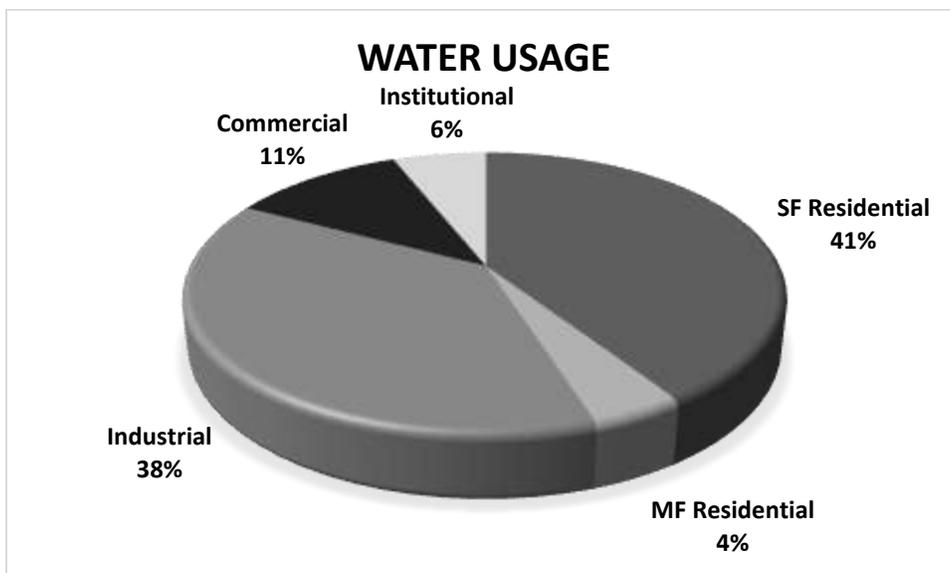
Per capita use is expressed in gallons per customer per day (GPCD). The total GPCD of Vernon, which includes industrial, commercial, and institutional uses, has fluctuated between 173 and 290 over the previous 5 years. The residential GPCD, which includes single-family and multi-family uses, has fluctuated between 67 and 85.



In 2013, the City had 4,298 retail connections. Single-Family (SF) Residential use represented 86% of the total connections. The remaining 14% of retail connections were Multi-Family (MF) Residential, Industrial, Commercial, and Institutional users.

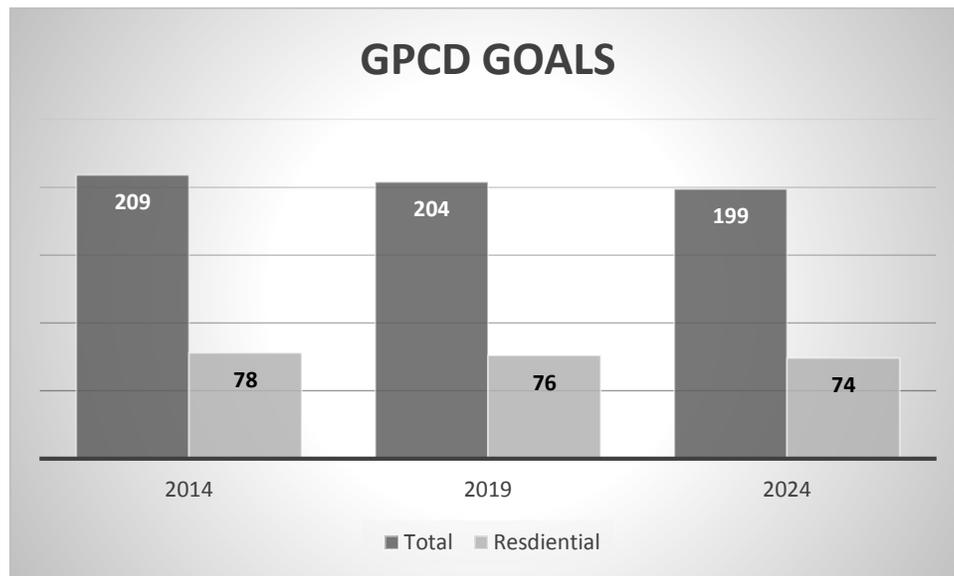


The total water usage for the City in 2013 was predominately for Single-Family Residential (41%) and Industrial (38%) uses. The remaining 21% was for Multi-Family Residential, Commercial, and Institutional users.



WATER CONSERVATION GOALS

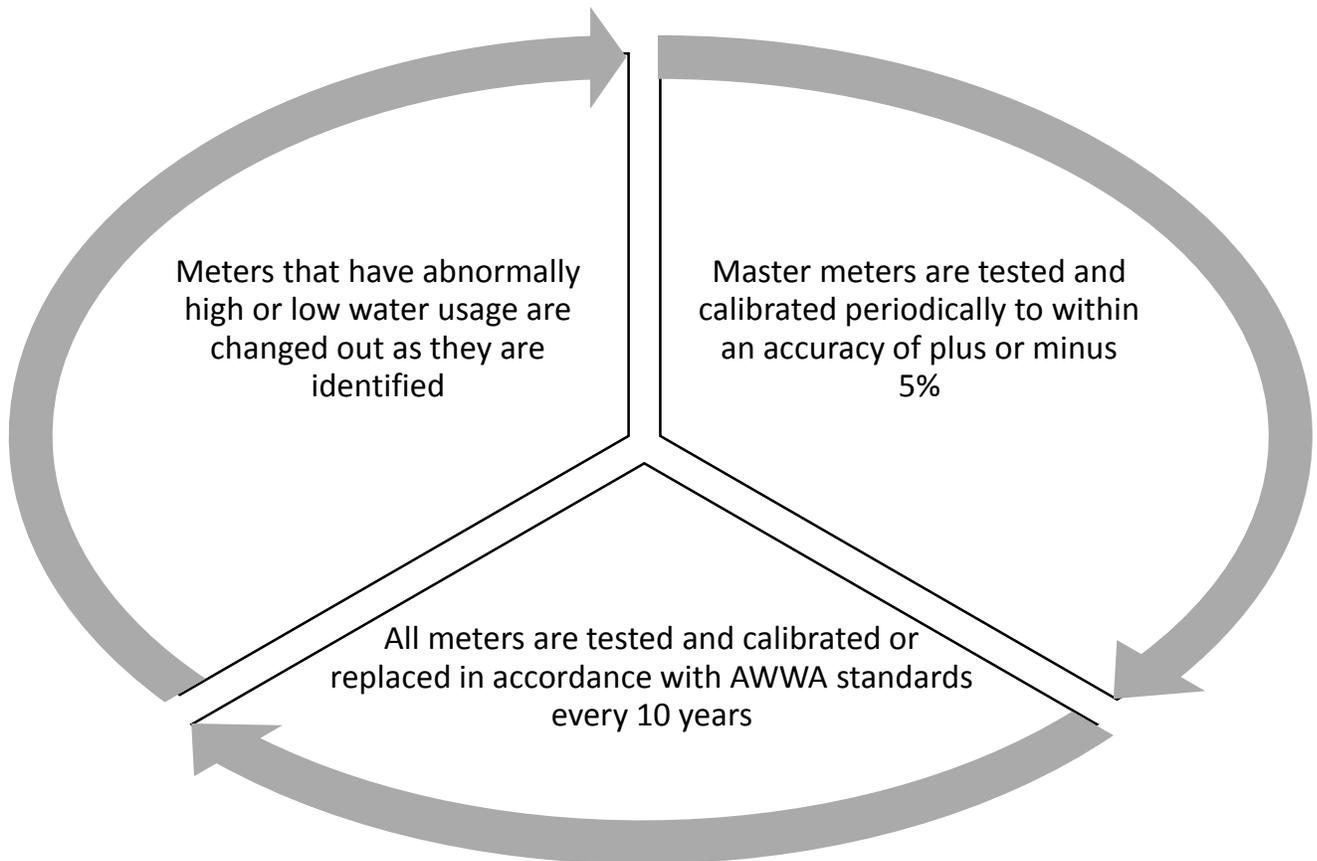
Water use can be influenced by a number of factors including annual variations in temperature and rainfall as well as water production limitations, high demand, and subsequent water-use restrictions. The goals for the City are based upon an average of the previous 5 years. Using the recommendation from the Water Conservation Task Force of Texas of a 0.5% reduction in GPCD per year, the Water Conservation Goals for the City of Vernon are as follows:



The City Manager will assess the progress in achieving the stated goals and assess the effectiveness of water conservation activities on an annual basis.

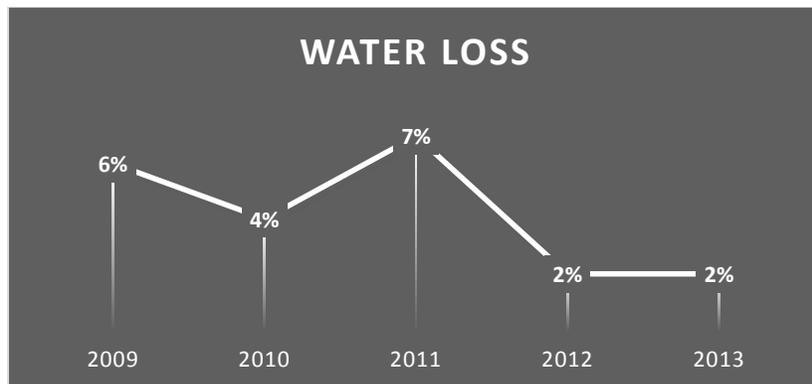
METERING DEVICES

The City of Vernon meters 100% of water use in residential, industrial, commercial, and institutional accounts. Meters are tested upon customer request. Per the City's meter testing, repair, and 10-year replacement program:



WATER LOSS

The City of Vernon maintains an ongoing program of leak detection and repair. In 2013, water loss for the City was calculated to be 2%. Much of the water loss in recent years can be attributed to leaks caused by ground shifting and structure fires, both associated with severe drought conditions. The long term goal is to maintain less than 5% water loss.



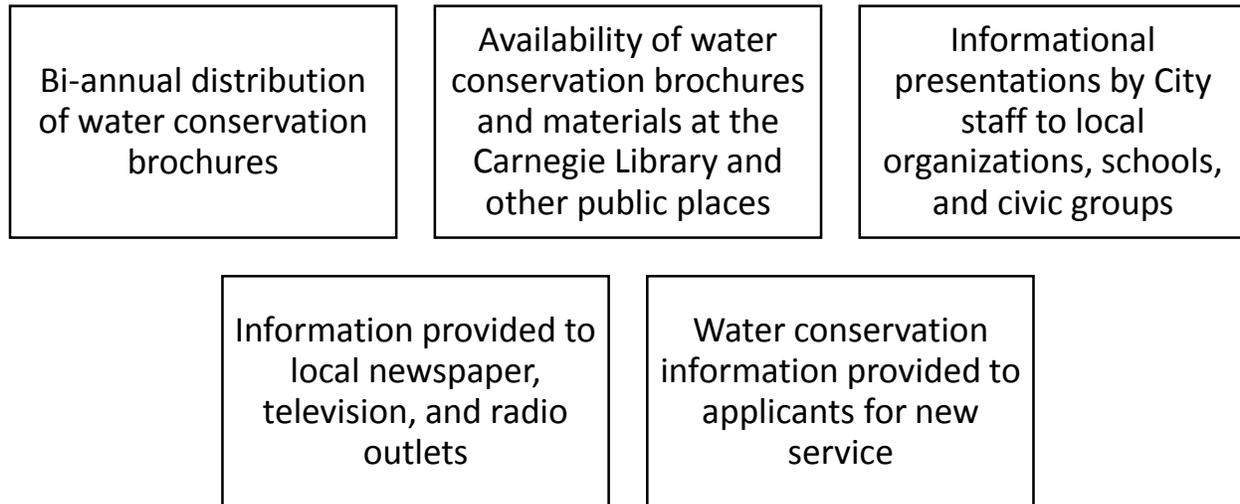
An annual internal water audit measures water loss by comparing sold vs. purchased water. Any abnormalities are investigated by the Utility Department staff using leak detection equipment. Water lines found to have leaks are replaced as quickly as practical. The City is required by TCEQ to use a CL-17 chlorine analyzer that uses 3,200 gallons/month and an ion-exchange nitrate removal system that uses between 28,000 and 56,000 gallons/day.

Elevated tanks are monitored by a supervisory control and data acquisition (SCADA) system that will alarm utility staff if water flow from the tanks indicate a possible water main break, a tank overflow, or any other abnormalities in the system. Visual inspections are performed routinely by meter readers and utility staff. Customers with abnormally high usage indicating excessive usage or a plumbing fixture leak are informed.

The City is well within the range of “acceptable” water loss which is generally less than 15% across the State of Texas. The City, however, will continue to maximize efforts to reduce water loss. The City continues to explore state-of-the-art techniques and practices that can help to identify water loss and achieve conservation.

PUBLIC EDUCATION (CONSERVATION)

The City of Vernon conducts a program of ongoing public education that includes:



The City will consider adopting Best Management Practices for Public Information and Education Programs during the next planning cycle.

WATER RATES

Within the city limits, the City of Vernon has a uniform water rate structure in place for all residential, commercial, and industrial users inside the city limits. This rate structure is cost based and does not encourage the excessive use of water. The minimum monthly bill (first 1,000 gallons) is \$25.62 and each additional 1,000 gallons is \$2.86. Raw water customers have a minimum (first 1,000 gallons) of \$25.62 and pay \$2.02 for each additional 1,000 gallons.

Outside the city limits, customers have an inclining block rate structure. Treated water customers have a minimum (first 2,000 gallons) of \$39.83, pay \$3.57 for each 1,000 gallons up to 20,000 gallons, and pay \$3.77 for each additional 1,000 gallons. Raw water customers have a minimum (first 2,000 gallons) of \$27.19, pay \$2.66 for each 1,000 gallons up to 20,000 gallons, and pay \$2.80 for each additional 1,000 gallons.

PLUMBING FIXTURES

The State of Texas has recently adopted more stringent water saving performance measures for plumbing fixtures, found in the Health & Safety Code, Chapter 372. The following maximum flow standards are subsequently listed in the Texas Administrative Code Title 30 Chapter 290 Subchapter G:

				
Faucet 2.2 gpm	Shower head 2.5 gpm	Toilet 1.28 gpf	Urinal 0.5 gpf	Pre-rinse spray valve 1.6 gpm

Customers in existing buildings that do not have water saving plumbing fixtures are encouraged through educational materials to retrofit their old plumbing fixtures.

WATER CONSERVATION LANDSCAPING

The City has a program to provide mulch for residential landscapes. Additional mulch in tree and flower beds allow landscapes to more efficiently utilize landscape irrigation. Informational brochures about efficient landscape irrigation will be provided periodically.

WATER WASTE

Water waste is prohibited and enforceable at all times*

Water waste is defined as:

- Failure to repair a controllable leak, including:
 - Irrigation systems;
 - Plumbing fixtures;
 - Pipes.
- Operating a permanently installed irrigation system with:
 - A broken or missing head;
 - A head that is out of adjustment where the arc of the spray head is over a street, parking area, or other impervious surface.
- During irrigation:
 - Allowing water to run off a property such that there is a trail of water running in a street, parking area, or other impervious surface for a distance of 50 feet or greater;
 - Allowing water to pond to a depth greater than $\frac{1}{4}$ of an inch in a street, parking area, or other impervious surface;
 - Watering landscapes between 10AM and 6PM.

* The above requirements are also applicable to those who are irrigating with private water wells.

Each instance of a violation is a separate offense and a Class C misdemeanor that may be punishable by fines.

DISCRETIONARY/NON-ESSENTIAL USES



Wash down of any sidewalks, driveways, parking lots, or other hard-surfaced areas



Use of water to wash down buildings or structures for purposes other than immediate fire protection



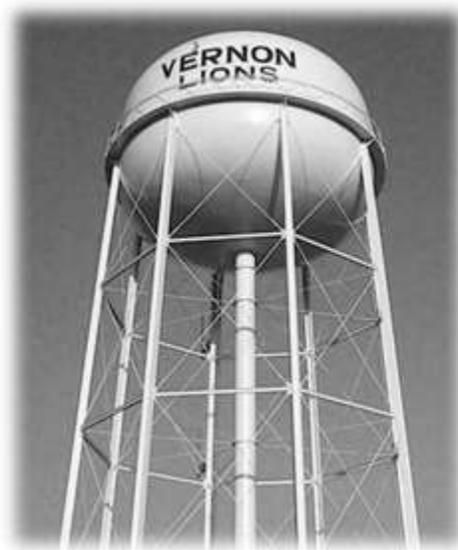
Use of water for dust control



Residential use of water for washing vehicles



Failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).



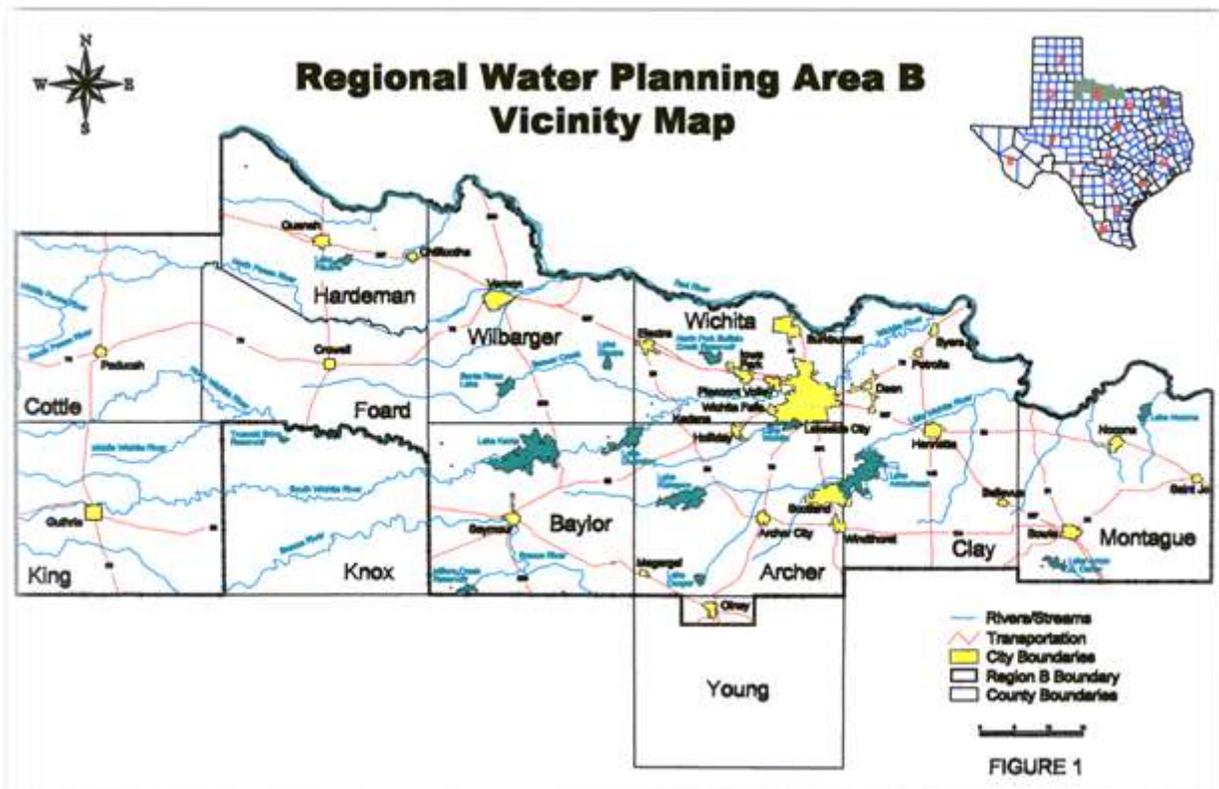
WHOLESALE CONTRACTS

The City of Vernon will include a requirement in every wholesale water supply contract entered into or renewed after official adoption of the plan and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements in this chapter. If the customer intends to resell the water, the contract between the initial supplier and customer must provide that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with the provisions 30 TAC Chapter 288.

COORDINATION WITH REGION B

The service area of the City of Vernon is located within the Region B Water Planning Group and the City will provide a copy of this Plan to the Region B Planning Group at:

Red River Authority
3000 Hammond Road
Wichita Falls, TX 76310



ORDINANCE

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF VERNON, TEXAS, ADOPTING A WATER CONSERVATION & DROUGHT CONTINGENCY PLAN; ESTABLISHING DATA, INFORMATION, AND POLICY FOR WATER CONSERVATION PROGRAMS; 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 Vernon, Texas recognizes that the amount of water available to the City and its water utility customers is limited and subject to depletion during periods of extended drought;

WHEREAS, Section 13.146 of the Texas Water Code and applicable rules of the Texas Water Development Board require a retail public utility that provides potable water service to 3,300 or more connections to submit to the executive administrator of the board a water conservation plan based on specific targets and goals developed by the retail public utility and using appropriate best management practices as defined by Section 11.002, which defines “conservation” as those practices, techniques, and technologies that will reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a water supply is made available for future or alternative uses;

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 11.1272 of the Texas Water Code and applicable rules of the Texas Commission on Environmental Quality require all public water supply systems in Texas to prepare a drought contingency plan; and

WHEREAS, as authorized under law, and in the best interests of the citizens of Vernon, Texas, the City Council deems it expedient and necessary to establish certain rules and policies for the ongoing conservation of water and 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 VERNON, TEXAS:

SECTION 1.

That the City of Vernon, Texas Water Conservation & Drought Contingency Plan 2013 attached hereto and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the City.

SECTION 2.

That all ordinances that are in conflict with the provisions of this ordinance be, and the same are hereby, repealed and all other ordinances of the City not in conflict with the provisions of this ordinance shall remain in full force and effect.

SECTION 3.

Should any paragraph, sentence, subdivision, clause, phrase, or section of this ordinance be adjudged or held to be unconstitutional, illegal or invalid, the same shall not affect the validity of this ordinance as a whole or any part or provision thereof, other than the part so declared to be invalid, illegal or unconstitutional.

SECTION 4.

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

DULY PASSED BY THE CITY OF VERNON, TEXAS, on the _____ day of _____, 20____.

APPROVED:

MAYOR

ATTESTED TO:

CITY SECRETARY

APPROVED AS TO FORM:

CITY ATTORNEY

APPENDIX A – REPORTING REQUIREMENTS

Water Conservation Plan (TWDB)

For retail public water suppliers providing water service to 3,300 or more connections, a water conservation plan meeting the minimum requirements of Subchapter A of 30 TAC Ch. 288 and using appropriate best management practices must be developed, implemented, and submitted to the executive administrator of the Texas Water Development Board not later than May 1, 2014, and every five years after that date to coincide with the regional water planning process.

Annual Report (TWDB)

Entities with 3,300 connections or more and municipal, industrial/mining, and other non-agricultural water right holders of 1,000 acre-feet of water per year or more are required to submit an Annual Report to TWDB each year on May 1.

Water Use Survey (TCEQ)

The water uses survey is a tool used to document yearly water usage by industrial (including mining, manufacturing, and steam electric) and municipal water users across the state. In addition, the Water Use Survey team evaluates the data to create yearly state-wide water use estimates.

Water Use Report (TWDB)

Holders of water-right permits, issued by the TCEQ, are required to submit a water-use report each year.

Water Loss Audit (TWDB)

Retail water suppliers with more than 3,300 connections are required to submit a Water Loss Audit to TWDB annually. The annual water loss audits for the year 2013 are due May 1, 2014. Additionally, a retail public water utility required to file a

water audit with the TWDB is required to notify each of the utility's customers of the water loss reported in the water audit.

Drought Contingency Plan (TCEQ)

The next revision of the drought contingency plans for retail public water suppliers serving 3,300 or more connections, wholesale public water suppliers, and irrigation districts must be submitted no later than May 1, 2014, and every five years thereafter to coincide with the regional water planning group process. Any new or revised plans must be submitted to the TCEQ within 90 days of adoption by the governing body of the entity.

APPENDIX B – WATER CONSERVATION TIPS

Bathroom:

- Take a shower instead of filling the tub and taking a bath. Showers usually use less water than a tub baths.
- Install a low- flow shower head which restricts the quantity of the flow.
- Take short showers and install a cutoff valve or turn the water off while soaping and back on again only to rinse off.
- Do not use hot water when cold will do, Water and energy can be saved by washing hands with soap and cold water; hot water should be only added when hands are especially dirty.
- Reduce the level of the water being used in a bathtub by one or two inches if a shower is not available.
- Turn water off when brushing teeth until it is time to rinse.
- Do not let the water run when washing hands. Instead, hands should be wet, and water should be turned off while soaping and scrubbing and turned on again to rinse.
- Shampoo hair in the shower. Shampooing in the shower takes only a little more than is used to shampoo hair during a bath and much less than shampooing and bathing separately.
- Hold hot water in the basin when shaving instead of letting the faucet continue to run.
- Test toilets for leaks. To test for leaks, a few drops of food coloring can be added to the water in the tank. The toilet should not be flushed. The customer can then watch to see if the coloring disappears in the bowl within a few minutes. If it does, the fixture needs adjustment or repair.
- Install faucet aerators to reduce water consumption.
- Never use the toilet to dispose of cleansing tissues, cigarette butts, or other trash. This can waste a great deal of water and also places an unnecessary load on the sewage treatment plant or septic tank.

- Install a new low-volume flush toilet that uses 1.28 gallons or less per flush when building a new home or remodeling a bathroom.

Kitchen:

- Using a pan of water (or place a stopper in the sink) for rinsing pots and pans and cooking implements when cooking rather than turning on the water faucet each time a rinse is needed.
- Never run the dishwasher without a full load. In addition to saving water, expensive detergent will last longer and a significant energy saving will appear on the utility bill.
- Use the sink disposal sparingly, and never use it for scraps.
- Keep a container of drinking water in the refrigerator, running water from the tap until it is cool is wasteful. Better still, save both water and energy by keeping cold water in a picnic jug on the kitchen counter to avoid opening the refrigerator door frequently.
- Use a small pan of cold water when cleaning vegetables rather than letting the faucet run.
- Use only a little water in the pot and put a lid on it for cooking most foods. Not only does this method save water, but food is more nutritious since vitamins and minerals are not poured down the drain with the extra cooking water.
- Use a pan of water for rinsing when washing dishes by hand rather than running the faucet.
- Always keep water conservation in mind, and think of other ways to save in the kitchen. Small kitchen savings, such as not making too much coffee or letting ice cubes melt in the sink can add up in a year's time.

Laundry:

- Wash only a full load when using an automatic washing machine (automatic washers require 32 to 59 gallons per load).

- Use the lowest water level setting on the washing machine for a light loads whenever possible.
- Use cold water as often as possible to save energy and to conserve the hot water for uses which cold water cannot serve. (This is also for clothing made of today's synthetic fabrics).

Appliances and plumbing:

- Check water requirements of various models and brands when considering purchasing any new appliance that uses water. Some use less water than others.
- Check all waterlines connections and faucets for leaks. If the cost of water is \$2.62 per 1000 gallons, one could pay a large bill for water that simply goes down the drain because of the leakage. A slow drip can waste as much 170 gallons of water each day, or 5000 gallons per month, and can add as much as \$13.00 per month to the water bill.
- Learn to replace faucet washers so that drips can be corrected promptly. It is easy to do, costs very little, and can represent a substantial savings in plumbing and water bills.
- Check for water leakage that the customer may be entirely unaware of, such as a leak between the water meters in the house. To check, turn off all indoor and outdoor faucets. If the water meter continues to run or turn, a leak probably exists and needs to be located.
- Insulate all hot water pipes to avoid the delays (and waste water experienced while waiting for the water to run hot).
- Be sure the hot water heater thermostat is not set too high. Extremely hot settings waste water and energy because the water often has to be cooled with cold water before it can be used.
- Use a moisture meter to determine when house plants need water. More plants die from over-watering than being on the dry side.

Outdoor Use:

- Water lawns early in the morning during the hotter summer months. Much of the water used on the lawn can simply evaporate between the sprinkler and the grass.
- Use a sprinkler that produces large drops of water, rather than a fine mist, to avoid evaporation.
- Turn soaker hoses so the holes are on the bottom to avoid evaporation.
- Water slowly for better absorption, and never water in high winds.
- Forget about watering the streets, sidewalks or driveways. They will never grow a thing.
- Condition the soil with compost before planting grass or flower beds so that water will soak in rather than run off.
- Fertilize lawns at least twice a year for root stimulation. Grass with a good root system makes better use of less water.
- Learn to know when grass needs watering. If it has turned dull grey-green or if footprints remain visible, it is time to water.
- Do not water frequently. Too much water can overload the soil so that air cannot get to the roots and can encourage plant diseases.
- Do not over-water. Soil can absorb only so much moisture and the rest simply runs off. A timer may help, and either a kitchen timer or an alarm clock will do. An inch of water applied once a week will keep most Texas grasses alive and healthy.
- Operate automatic sprinkler systems only when the demand on the City of Vernon water supply is lowest. Set the system to operate between four and six a.m.
- Do not scalp lawns when mowing during the hot weather. Taller grass holds moisture better. Rather, grass should be cut fairly often, so that only ½ to ¾ inches is trimmed off. A better looking lawn will result.

- Using a watering can or hand water with the hose in a small area of the lawn that need more frequent watering (those near walks or driveways or in especially hot, sunny spots).
- Learn what type of grass, shrubbery, plants do best in the area and in which parts of the lawn, and then plant accordingly. If one has a heavily shaded yard, no amount of water will make roses bloom. In especially dry sections of the state, attractive arrangements of plant that are adapted to arid or semi-arid climates should be chosen.
- Consider decorating areas of the lawn with rocks, gravel, wood chips, or other materials now available that require no water at all.
- Do not “sweep” walks and driveways with the hose. Use a broom or rake instead.
- Use a bucket of soapy water and use the hose only for rinsing when washing the car.
- Applying 1-inch of water per week is sufficient for maintaining turf grasses and plants.

APPENDIX C – UTILITY PROFILE

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



UTILITY PROFILE FOR RETAIL WATER SUPPLIER

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

CONTACT INFORMATION

Name of Utility: City of Vernon

Public Water Supply Identification Number (PWS ID): 2440001

Certificate of Convenience and Necessity (CCN) Number: 10600

Surface Water Right ID Number: N/A

Wastewater ID Number: WQ0010377001

Completed By: David Templeton Title: Water Distribution Supervisor

Address: 1725 Wilbarger Street City: Vernon Zip Code: 76384

Email: dtemp@vermontx.gov Telephone Number: 940-552-9961

Date: 02/25/2014

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

Groundwater Conservation District: N/A [Map](#)

Check all that apply:

- Received financial assistance of \$500,000 or more from TWDB
- Have 3,300 or more retail connections
- Have a surface water right with TCEQ

Utility Profile
 TWDB Form No. 1945 - R
 Revised on: 9/1/13



Section I: Utility Data

A. Population and Service Area Data

1. Current service area size in square miles: 8
 (Attach or email a copy of the service area map.)
2. Provide historical service area population for the previous five years, starting with the most current year.

Year	Historical Population Served By Retail Water Service	Historical Population Served By Wholesale Water Service	Historical Population Served By Wastewater Service
2009	13,500	1,470	13,500
2010	11,005	1,494	11,005
2011	12,500	1,500	12,500
2012	11,500	1,510	11,500
2013	11,005	1,520	11,005

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

Year	Projected Population Served By Retail Water Service	Projected Population Served By Wholesale Water Service	Projected Population Served By Wastewater Service
2020	12,655	1,525	12,655
2030	13,000	1,550	13,000
2040	13,500	1,560	13,500
2050	13,000	1,570	13,000
2060	13,000	1,570	13,000

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

Population projections were obtained from the approved 2011 Region B Water Plan.

Utility Profile
 TWDB Form No. 1965 - 0
 Revised on: 9/1/13



B. System Input

Provide system input data for the previous five years.

Total System Input = Self-supplied + Imported – Exported

Year	Self-supplied Water in Gallons	Purchased/Imported Water in Gallons	Exported Water in Gallons	Total System Input	Total GPCD
2009	933,844,000	0	76,492,000	857,152,000	174
2010	1,236,700,500	0	72,913,000	1,163,787,500	290
2011	984,950,400	0	60,979,000	923,971,400	203
2012	963,448,000	0	93,744,000	869,704,000	207
2013	763,187,448		67,362,000	695,825,448	173
Historic 5-year Average	976,386,070	0	74,298,000	902,088,070	209

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

1. Designed daily capacity of system _____ **4,000,000 gallons** per day.
2. Storage Capacity:
 Elevated _____ **1,000,000 gallons**
 Ground _____ **3,000,000 gallons**
3. List all current water supply sources in gallons.

Water Supply Source	Source Type*	Total Gallons
Seymour Aquifer	Ground	763,187,448
	Choose One	

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

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

Utility Profile
TWDB Form No. 1965 - R
Revised on: 9/1/13



D. Projected Demands

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

Year	Population	Water Demands (gallons)
2014	11,500	900,000,000
2015	11,700	925,000,000
2016	11,850	950,000,000
2017	12,000	975,000,000
2018	12,200	1,000,000,000
2019	12,450	1,250,000,000
2020	12,655	1,500,000,000
2021	12,460	1,750,000,000
2022	12,470	1,850,000,000
2023	12,480	2,000,000,000

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

Utility Profile
 TWDB Form No. 1965 - R
 Revised on: 9/1/13



E. High Volume Customers

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

Retail Customer	Water Use Category*	Annual Water Use	Treated or Raw
Solvey	Industrial	181,507,000	Treated
Tyson	Industrial	72,038,000	Treated
Waggoner Ranch	Commercial	11,465,000	Treated
Tx.MHMR	Commercial	8,330,000	Treated
Wilbarger General Hospital	Commercial	4,915,000	Treated

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

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

Wholesale Customer	Water Use Category*	Annual Water Use	Treated or Raw
Red River Water Authority	Municipal	47,596,000	Choose One
Northside WSC	Municipal	14,599,000	Raw
Oklunion WSC	Municipal	5,167,000	Treated
City of Paradise	Municipal	898,000	Raw
	Choose One		Choose One

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

F. Utility Data Comment Section

Provide additional comments about utility data below.

Utility Profile
 TWD6 Form No. 1965 - #
 Revised on: 9/1/13



Section II: System Data

A. Retail Connections

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

Water Use Category*	Active Retail Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Residential – Single Family	3,635		3,635	86%
Residential – Multi-family (units)	74		74	2%
Industrial	7		7	0%
Commercial	368		368	9%
Institutional	135		135	3%
Agricultural	0		0	0%
TOTAL	4,219	0	4,219	

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

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

Water Use Category*	Net Number of New Retail Connections				
	2009	2010	2011	2012	2013
Residential – Single Family	0	0	73	28	1
Residential – Multi-family (units)	0	0	0	5	0
Industrial	0	0	0	0	0
Commercial	0	0	0	0	3
Institutional	0	0	0	0	0
Agricultural	0	0	0	0	0
TOTAL	0	0	73	33	4

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

Utility Profile
 TWDB Form No. 1965 - R
 Revised on: 9/11/13



B. Accounting Data

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

Water Use Category*	Total Gallons of Retail Water				
	2009	2010	2011	2012	2013
Residential - Single Family	295,947,000	286,089,000	350,224,000	307,905,000	274,000,000
Residential - Multi-family	34,598,000	35,371,000	37,891,000	31,235,000	28,693,000
Industrial	259,800,000	301,624,000	277,885,000	284,685,000	253,545,000
Commercial	81,993,000	74,384,000	84,446,000	81,989,000	75,331,000
Institutional	56,911,000	58,003,000	55,171,000	50,356,000	40,524,000
Agricultural					
TOTAL	729,249,000	755,471,000	805,617,000	756,170,000	672,093,000

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

C. Residential Water Use

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

Water Use Category*	Residential GPCD				
	2009	2010	2011	2012	2013
Residential - Single Family	60	71	77	73	68
Residential - Multi-family	7	9	8	7	7
TOTAL	67	80	85	80	75

D. Annual and Seasonal Water Use

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

Month	Total Gallons of Treated Retail Water				
	2009	2010	2011	2012	2013
January	56,462,000	60,142,000	57,636,000	41,917,000	51,159,000
February	60,060,000	54,882,000	63,610,000	50,675,000	45,356,000
March	57,461,000	60,740,000	61,739,000	62,244,000	52,323,000
April	59,396,000	83,745,000	76,453,000	71,350,000	77,423,000
May	108,196,000	95,063,000	73,650,000	88,963,000	62,509,000
June	87,525,000	96,627,000	64,502,000	70,641,000	70,896,000
July	58,941,000	55,508,000	66,658,000	55,743,000	61,457,000
August	66,848,000	77,090,000	57,088,000	49,082,000	50,435,000
September	58,514,000	64,954,000	51,415,000	52,327,000	45,156,000
October	50,719,000	90,903,000	47,506,000	54,139,000	44,366,000
November	56,377,000	22,159,000	50,203,000	59,886,000	52,742,000
December	51,675,000	56,927,000	71,868,000	55,031,000	58,488,000
TOTAL	774,194,000	818,740,000	742,348,000	711,998,000	672,310,000

Utility Profile
 TWDB Form No. 1965 - R
 Revised on: 9/1/13



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

Month	Total Gallons of Raw Retail Water				
	2009	2010	2011	2012	2013
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL	0	0	0	0	0

3. Summary of seasonal and annual water use.

Water Use	Seasonal and Annual Water Use					Average in Gallons
	2009	2010	2011	2012	2013	
Summer Retail (Treated + Raw)	213,314,000	229,225,000	188,248,000	175,466,000	182,788,000	197,808,200 <i>5yr Average</i>
TOTAL Retail (Treated + Raw)	774,194,000	818,740,000	742,348,000	711,998,000	672,310,000	743,918,000 <i>5yr Average</i>

E. Water Loss

Provide Water Loss data for the previous five years.

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

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

Year	Total Water Loss in Gallons	Water Loss in GPCD	Water Loss as a Percentage
2009	48,870,778	10	6%
2010	42,934,123	11	4%
2011	60,241,780	13	7%
2012	19,428,500	5	2%
2013	22,622,448	6	3%
5-year average	38,819,526	9	4%

Utility Profile
 TWD8 Form No. 1965 - R
 Revised on: 9/1/13



F. Peak Water Use

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

Year	Average Daily Use (gal)	Peak Day Use (gal)	Ratio (peak/avg)
2009	2,557,928	3,630,838	1.42
2010	3,388,220	3,452,566	1.02
2011	2,698,494	2,731,766	1.01
2012	2,639,583	3,066,129	1.16
2013	2,090,924	2,725,566	1.30

G. Summary of Historic Water Use

Water Use Category	Historic 5-year Average	Percent of Connections	Percent of Water Use
Residential SF	302,833,000	86%	41%
Residential MF	33,557,600	2%	5%
Industrial	275,507,800	0%	37%
Commercial	79,628,600	9%	11%
Institutional	52,193,000	3%	7%
Agricultural	0	0%	0%

H. System Data Comment Section

Provide additional comments about system data below.

Utility Profile
 TWDB Form No. 1965 - R
 Revised on: 9/1/13



Section III: Wastewater System Data

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

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

1. Design capacity of wastewater treatment plant(s): 2,000,000 gallons per day.
2. List the active wastewater connections by major water use category.

Water Use Category*	Active Wastewater Connections			
	Metered	Unmetered	Total Connections	Percent of Total Connections
Municipal			0	0%
Industrial			0	0%
Commercial			0	0%
Institutional			0	0%
Agricultural			0	0%
TOTAL	0	0	0	

2. What percent of water is serviced by the wastewater system? 0%
3. For the previous five years, enter the number of gallons of wastewater that was treated by the utility.

Month	Total Gallons of Treated Wastewater				
	2009	2010	2011	2012	2013
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
TOTAL	0	0	0	0	0

Utility Profile
 TWDB Form No. 1965 - R
 Revised on: 9/1/13



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

B. Reuse Data

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

Type of Reuse	Total Annual Volume (in gallons)
On-site irrigation	
Plant wash down	
Chlorination/de-chlorination	
Industrial	
Landscape irrigation (parks, golf courses)	
Agricultural	
Discharge to surface water	
Evaporation pond	
Other	
TOTAL	0

C. Wastewater System Data Comment

Provide additional comments about wastewater system data below.

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

APPENDIX D – 2013 ANNUAL REPORT

Water Conservation Plan Annual Report – Retail Water Supplier
 TWDB Form No. 1356
 Revised 8/13/2013 2:08 PM

Water Conservation Plan Annual Report Retail Water Supplier

CONTACT INFORMATION

Name of Entity: City of Vernon
 Public Water Supply Identification Number (PWS ID): 2440001
 Certificate of Convenience and Necessity (CCN) Number: 10600
 Surface Water Rights ID Number: N/A
 Wastewater ID Number: WQ0010377001

Check all that apply:

- Retail Water Supplier
- Wholesale Water Supplier
- Wastewater Treatment Utility

Address: 1725 Wilbarger Street City: Vernon Zip Code: 76384

Email: dtemp@vernontx.gov Telephone Number: 940-552-9961

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

Groundwater Conservation District: [Map](#)

Form Completed By: David Templeton Title: Water Distribution Superviso

Date: 02/25/2014

Reporting Period (check only one):

- Fiscal Period Begin (mm/yyyy) _____ Period End (mm/yyyy) _____
- Calendar Period Begin (mm/yyyy) 01/2013 Period End (mm/yyyy) 12/2013

Check all of the following that apply to your entity:

- Receive financial assistance of \$500,000 or more from TWDB
- Have 3,300 or more retail connections
- Have a water right with TCEQ

Water Conservation Plan Annual Report – Retail Water Supplier
 TWD6 Form No.1966
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SYSTEM DATA

Retail Customer Categories*

- > Residential Single Family
- > Residential Multi-family
- > Industrial
- > Commercial
- > Institutional
- > Agricultural

**Recommended Customer Categories for classifying your customer water use. For definitions, refer to [Guidance and Methodology on Water Conservation and Water Use](#).*

1. For this reporting period, select the category(s) used to classify customer water use:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Residential Single Family | <input checked="" type="checkbox"/> Commercial |
| <input checked="" type="checkbox"/> Residential Multi-family | <input checked="" type="checkbox"/> Institutional |
| <input checked="" type="checkbox"/> Industrial | <input type="checkbox"/> Agricultural |

2. For this reporting period, enter the gallons of **metered retail water** used by each customer category. If the Customer Category does not apply, enter zero or leave blank.

Retail Customer Category	Number of Connections	Gallons Metered
Residential Single Family	3,635	274,000,000
Residential Multi-family	74	28,693,000
Industrial	7	253,545,000
Commercial	368	75,331,000
Institutional	135	40,524,000
Agricultural		
Total Retail Water Metered¹	4,219	672,093,000

1. Residential + Industrial + Commercial + Institutional + Agricultural = Total Retail Water Metered

Water Conservation Plan Annual Report - Retail Water Supplier
 TWDB Form No. 1965
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Water Use Accounting

	Total Gallons During the Reporting Period
Water Produced: Water from permitted sources such as rivers, lakes, streams, and wells. <i>Same as line 14 of the water loss audit.</i>	763,187,448
Wholesale Water Imported: Purchased wholesale water transferred into the system. <i>Same as line 15 of the water loss audit.</i>	
Wholesale Water Exported: Wholesale water sold or transferred out of the system. <i>Same as line 16 of the water loss audit.</i>	68,260,000
System Input: Total water supplied to system and available for retail use. <small>Produced + Imported - Exported = System Input</small>	694,927,448
Total Retail Water Metered	672,093,000
Other Authorized Consumption: Water that is authorized for other uses such as the following: This water may be metered or unmetered. <i>Same as the total of lines 19, 20, and 21 of the water loss audit.</i> <ul style="list-style-type: none"> - back flushing - line flushing - storage tank cleaning - municipal golf courses/parks - fire department use - municipal government offices 	8,686,593
Total Authorized Use: All water that has been authorized for use. <small>Total Retail Water + Other Authorized Consumption = Total Authorized Use</small>	680,779,593
Apparent Losses: Water that has been consumed but not properly measured or billed. <i>Same as line 28 of the water loss audit.</i> <i>(Includes losses due to customer meter accuracy, systematic data discrepancy, unauthorized consumption such as theft)</i>	15,453,502
Real Losses: Physical losses from the distribution system prior to reaching the customer destination. <i>Same as line 29 of the water loss audit.</i> <i>(Includes physical losses from system or mains, reported breaks and leaks, or storage overflow)</i>	4,425,769
Unidentified Water Losses: Unreported losses not known or quantified. <small>System Input - Total Authorized Use - Apparent Losses - Real Losses = Unidentified Water Losses</small>	(5,731,416)
Total Water Loss	14,147,855
	<small>Apparent + Real + Unidentified = Total Water Loss</small>

Water Conservation Plan Annual Report – Retak Water Supplier
 TWDB Form No. 1966
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Targets and Goals

Provide the **specific and quantified five and ten-year targets** as listed in your current Water Conservation Plan. Target dates and numbers should match your current Water Conservation Plan.

Achieve Date	Target for Total GPCD	Target for Water Loss (expressed in GPCD)	Target for Water Loss Percentage (expressed in percentage)
Five-year target date: 2013	180	24	11%
Ten-year target date: 2018	175	24	11%

Gallons Per Capita per Day (GPCD) and Water Loss

Provide current GPCD and water loss totals. To see if you are making progress towards your stated goals, compare these totals to the above targets and goals. Provide the population and residential water use of your service area.

Total System Input in Gallons	Permanent Population ¹	Total GPCD
694,927,448 <small>Water Produced + Wholesale Imported - Wholesale Exported</small>	11,005	173 <small>(System Input + Permanent Population) ÷ 365</small>

1. Permanent Population is the total permanent population of the service area, including single family, multi-family, and group quarter populations.

Residential Use in Gallons (Single Family + Multi-family)	Residential Population ¹	Residential GPCD
302,693,000	11,005	75 <small>(Residential Use + Residential Population) ÷ 365</small>

1. Residential Population is the total residential population of the service area, including only single family and multi-family populations.

Total Water Loss	Permanent Population	Water Loss	
		GPCD ¹	Percent ²
14,147,855 <small>Apparent + Real + Unidentified = Total Water Loss</small>	11,005	4	2%

1. $(\text{Total Water Loss} \div \text{Permanent Population}) \div 365 = \text{Water Loss GPCD}$
 2. $(\text{Total Water Loss} \div \text{Total System Input}) \times 100 = \text{Water Loss Percentage}$

Water Conservation Plan Annual Report - Retail Water Supplier
 TWDB Form No. 1766
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Water Conservation Programs and Activities

As you complete this section, review your utility's water conservation plan to see if you are making progress towards meeting your stated goals.

1. What year did your entity adopt or revise the most recent Water Conservation Plan? 2009
2. Does The Plan incorporate [Best Management Practices](#)? Yes No
3. Using the table below select the types of Best Management Practices or water conservation strategies actively administered during this reporting period and estimate the savings incurred in implementing water conservation activities and programs. Leave fields blank if unknown.

Methods and techniques for determining gallons saved are unique to each utility as they conduct internal effective cost analyses and long-term financial planning. Texas Best Management Practices can be found at TWDB's Water Conservation Best Management Practices [webpage](#). The [Alliance for Water Efficiency Water Conservation Tracking Tool](#) may offer guidance on determining and calculating savings for individual BMPs.

Best Management Practice	Check if Implemented	Estimated Gallons Saved
Conservation Analysis and Planning		
Conservation Coordinator	<input type="checkbox"/>	
Cost Effective Analysis	<input type="checkbox"/>	
Water Survey for Single Family and Multi-family Customers	<input type="checkbox"/>	
Financial		
Wholesale Agency Assistance Programs	<input type="checkbox"/>	
Water Conservation Pricing	<input type="checkbox"/>	
System Operations		
Metering New Connections and Retrofitting Existing Connections	<input type="checkbox"/>	
System Water Audit and Loss Control	<input type="checkbox"/>	
Landscaping		
Landscape Irrigation Conservation and Incentives	<input type="checkbox"/>	
Athletic Fields Conservation	<input type="checkbox"/>	
Golf Course Conservation	<input type="checkbox"/>	
Park Conservation	<input type="checkbox"/>	
Education and Public Awareness		
School Education	<input type="checkbox"/>	
Public Information	<input type="checkbox"/>	
Rebate, Retrofit, and Incentive Programs		
Conservation Programs for ICI Accounts	<input type="checkbox"/>	
Residential Clothes Washer Incentive Program	<input type="checkbox"/>	
Water Wise Landscape Design and Conversion Programs	<input type="checkbox"/>	

Water Conservation Plan Annual Report – Retail Water Supplier
 TWD8 Form No.1566
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Showerhead, Aerator, and Toilet Flapper Retrofit	<input type="checkbox"/>	
Residential Toilet Replacement Programs	<input type="checkbox"/>	
ICI Incentive Programs	<input type="checkbox"/>	
Conservation Technology		
Water Reuse	<input type="checkbox"/>	
New Construction Graywater	<input type="checkbox"/>	
Rainwater Harvesting and Condensate Reuse	<input type="checkbox"/>	
Regulatory and Enforcement		
Prohibition on Wasting Water	<input type="checkbox"/>	
Other, please describe:		
Total Gallons of Water Saved		0

4. For this reporting period, provide the estimated gallons of direct or indirect reuse activities.

Reuse Activity	Estimated Volume (in gallons)	
On-site irrigation		
Plant wash down		
Chlorination/de-chlorination		
Industrial		
Landscape irrigation (parks, golf courses)		
Agricultural		
Other, please describe:		
Total Volume of Reuse		0

5. For this reporting period, estimate the savings from water conservation activities and programs.

Gallons Saved/Conserved	Gallons Recycled/Reused	Total Volume of Water Saved ¹	Dollar Value of Water Saved ²
	0	0	

1. Estimated Gallons Saved/Conserved + Estimated Gallons Recycled/Reused = Total Volume Saved
 2. Estimate this value by taking into account water savings, the cost of treatment or purchase of water, and deferred capital costs due to conservation.

Water Conservation Plan Annual Report – Retail Water Supplier
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6. During this reporting period, did your rates or rate structure change? Yes No

Select the type of rate pricing structures used. Check all that apply.

<input checked="" type="checkbox"/>	Uniform Rates	<input type="checkbox"/>	Water Budget Based Rates	<input type="checkbox"/>	Surcharge - seasonal
<input type="checkbox"/>	Flat Rates	<input type="checkbox"/>	Excess Use Rates	<input type="checkbox"/>	Surcharge - drought
<input type="checkbox"/>	Inclining/Inverted Block Rates	<input type="checkbox"/>	Drought Demand Rates	Other, please describe:	
<input type="checkbox"/>	Declining Block Rates	<input type="checkbox"/>	Tailored Rates		
<input type="checkbox"/>	Seasonal Rates	<input type="checkbox"/>	Surcharge - usage demand		

7. For this reporting period, select the public awareness or educational activities used.

	Implemented	Number/Unit
<i>Example: Brochures Distributed</i>	√	10,000/year
<i>Example: Educational School Programs</i>	√	50 students/month
Brochures Distributed	<input type="checkbox"/>	_____
Messages Provided on Utility Bills	<input type="checkbox"/>	_____
Press Releases	<input checked="" type="checkbox"/>	10
TV Public Service Announcements	<input checked="" type="checkbox"/>	3
Radio Public Service Announcements	<input checked="" type="checkbox"/>	5
Educational School Programs	<input type="checkbox"/>	_____
Displays, Exhibits, and Presentations	<input type="checkbox"/>	_____
Community Events	<input type="checkbox"/>	_____
Social Media campaigns	<input type="checkbox"/>	_____
Facility Tours	<input type="checkbox"/>	_____
Other :	<input type="checkbox"/>	_____

Water Conservation Plan Annual Report – Retail Water Supplier
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Leak Detection and Water Loss

1. During this reporting period, how many leaks were repaired in the system or at service connections? 273

Select the main cause(s) of water loss in your system.

- Leaks and breaks
- Un-metered utility or city uses
- Master meter problems
- Customer meter problems
- Record and data problems
- Other: Fires
- Other: _____

2. For this reporting period, provide the following information regarding meter repair:

Type of Meter	Total Number	Total Tested	Total Repaired	Total Replaced
Production Meters	1			
Meters larger than 1 1/2"	105	1		
Meters 1 1/2" or smaller	4,114			65

3. Does your system have automated meter reading? Yes No

Water Conservation Plan Annual Report - Retail Water Supplier
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Program Effectiveness and Drought

1. In your opinion, how would you rank the effectiveness of your conservation activities?

Customer Classification	Less Than Effective	Somewhat Effective	Highly Effective	Does Not Apply
Residential Customers	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Industrial Customers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Institutional Customers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commercial Customers	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

2. During the reporting period, did you implement your Drought Contingency Plan?

Yes No

If yes, how many days were water use restrictions in effect? 518

If yes, check the reason(s) for implementing your Drought Contingency Plan.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Water Supply Shortage | <input type="checkbox"/> Equipment Failure |
| <input type="checkbox"/> High Seasonal Demand | <input type="checkbox"/> Impaired Infrastructure |
| <input type="checkbox"/> Capacity Issues | <input type="checkbox"/> Other: |

3. Select the areas for which you would like to receive more technical assistance:

- | | |
|---|--|
| <input type="checkbox"/> Best Management Practices | <input type="checkbox"/> Educational Resources |
| <input type="checkbox"/> Drought Contingency Plans | <input type="checkbox"/> Water Conservation Annual Reports |
| <input type="checkbox"/> Landscape Irrigation | <input type="checkbox"/> Water Conservation Plans |
| <input type="checkbox"/> Leak Detection and Equipment | <input type="checkbox"/> Water IQ: Know Your Water |
| <input type="checkbox"/> Rainwater Harvesting | <input type="checkbox"/> Water Loss Audits |
| <input type="checkbox"/> Rate Structures | <input type="checkbox"/> Recycling and Reuse |

SUBMIT

TEXAS WATER DEVELOPMENT BOARD
 P.O. BOX 13231, CAPITOL STATION
 AUSTIN, TX 78711-3231
2013 Water Audit Report

D. Water Losses

23. **Water Losses** 14,147,855 gallons
 (Line 17 minus Line 22)

E. Apparent Losses

24. Average Customer Meter Accuracy (Enter percentage)	98.00 %	4
25. Customer Meter Accuracy Loss	13,716,184 gallons	
26. Systematic Data Handling Discrepancy	0 gallons	0
27. Unauthorized Consumption	1,737,319 gallons	4
28. Total Apparent Losses	15,453,502 gallons	

F. Real Losses

29. Reported Breaks and Leaks (Estimated volume of leaks & breaks repaired during the audit period)	4,425,769 gallons	4
30. Unreported Loss (Includes all unknown water loss)	-5,731,416 gallons	2
31. Total Real Losses (Line 29, plus Line 30)	-1,305,647 gallons	
32. Water Losses (Apparent + Real) (Line 28 plus Line 31) = Line 23	14,147,855 gallons	
33. Non-revenue Water (Water Losses + Unbilled Authorized Consumption) (Line 32, plus Line 20, plus Line 21)	22,834,448 gallons	

G. Technical Performance Indicator for Apparent Loss

34. Apparent Losses Normalized
 (Apparent Loss Volume / # of Retail Service Connections/365) 10 gallons

H. Technical Performance Indicators for Real Loss

35. Real Loss Volume (Line 31)	-1,305,647 gallons	
36. Unavoidable Annual Real Losses, volume (calculated)	24,502,815 gallons	
37. Infrastructure Leakage Index (calculated) (Equals real loss volume divided by unavoidable annual real losses)	-0.05330	
38. Real Losses Normalized (Real Loss Volume / # of Service Connections / 365) (This indicator applies if service connection density is greater than 32 / mile)	0 gallons	

TEXAS WATER DEVELOPMENT BOARD
 P.O. BOX 13231, CAPITOL STATION
 AUSTIN, TX 78711-3231
2013 Water Audit Report

39. Real Losses Normalized _____ 0 gallons
 (Real Loss Volume/Miles of Main Lines/365)
 (This indicator applies if service connection density is less than 32/mile)

I. Financial Performance Indicators		Assessment Scale
40. Total Apparent Losses (Line 28)	15,453,502 gallons	
41. Retail Price of Water	\$0.00431	0
42. Cost of Apparent Losses (Apparent loss volume multiplied by retail cost of water, Line 40 x Line 41)	\$66,635.50	
43. Total Real Losses (Line 31)	-1,305,647.39	
44. Variable Production Cost of Water* (*Note: in case of water shortage, real losses might be valued at the retail price of water instead of the variable production cost.)	\$0.00054	0
45. Cost of Real Losses (Real Loss multiplied by variable production cost of water, Line 43 x Line 44)	(\$707.66)	
46. Total Assessment Scale		28
47. Total Cost Impact of Apparent and Real Losses	\$65,927.84	
48. Comments		
49. Total Water Loss %	2.04 %	