



## **CITY OF ODESSA WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN**

### **SECTION 1 – INTRODUCTION**

The Water Conservation and Drought Contingency Plan (Plan) for the City of Odessa is established in accordance with the requirements of Title 30, Texas Administration Code, Chapter 288 and submitted to the Texas Commission on Environmental Quality. This document will be used by the City of Odessa in its water conservation efforts and to address various levels of water shortages.

The Plan is adopted by Ordinance of the City of Odessa.

### **SECTION 2 – ADMINISTRATION**

The Director of Utilities is designated as the Administrator for the implementation and enforcement of the City of Odessa Water/Conservation and Drought Contingency Plan and is authorized to adopt any necessary administrative regulations and interpret and enforce the requirements of the Plan.

### **SECTION 3 – SERVICE AREA**

The service area for the City of Odessa is within the Region F water planning area. A copy of this Plan has been provided to the Region F Planning Group.

### **SECTION 4 – APPLICATION**

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

### **SECTION 5 – WATER CONTRACTS**

#### **A. Wholesale Water Contracts**

All contracts for the sale of water which are entered into, extended, or renewed after the adoption of this Plan will require that the wholesale customer develop and implement a water conservation plan which includes the elements required by the State and water conservation measures equivalent to those in the City’s Plan. If the customer will resell the water, the contract between the initial supplier and customer will provide that the contract for the resale of water must have water conservation requirements so that each successive customer in the resale of water will be required to implement water conservation measures acceptable to the State and equivalent to those in the City’s Plan.

## B. Other Water Contracts

Contracts with other public utilities, industrial districts, or customers outside the City limits will include provisions requiring the customers served by these contracts to meet the requirements of the City's Water Conservation and Drought Contingency Program.

## SECTION 6 – DEFINITIONS

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

Administrator: Director of Utilities or his/her designee.

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 entity organization using water supplied by the City of Odessa.

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.

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

Non-essential water use: water uses that are neither 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.

## SECTION 7 – WATER CONSERVATION PLAN

### I. INTRODUCTION

This revision of the City of Odessa Water Conservation Plan (Plan) is established to define certain water conservation measures, encourage water customers to conserve available water supplies, and to monitor the effectiveness of the Plan. The Water Conservation Plan is submitted to the Texas Commission on Environmental Quality (TCEQ) in compliance with the requirements of Title 30, Texas Administrative Code, Chapter 288.

### II. SYSTEM PROFILE

#### A. SOURCE WATER

The City of Odessa receives all of its water, untreated, from the Colorado Municipal Water District (CRMWD). The majority of the water is surface water from Lake Ivie, Spence or Thomas. Well water is used to supplement surface water mainly in the warm weather months and is received from Ward County wells. Minimal amounts of water are also received from wells in Ector County.

#### B. WATER TREATMENT

The City of Odessa operates a conventional water treatment plant using coagulation, flocculation, sedimentation, filtration, disinfection and pH adjustment for its surface water treatment. The plant's rated capacity is 50 MGD based on current filter capacity. In addition, approximately 20 MGD of well water can be brought into the plant separate from the surface water and only receives disinfection and pH adjustment. The maximum day since 2000 has not exceeded 40 MGD so currently treatment capacity is not an issue.

#### C. WATER SERVICE POPULATION CHARACTERISTICS

The City of Odessa provides potable water to customers inside the city limits as well as Ector County Utility District, several industrial districts and by contract to other areas outside the city limits. Population served by Odessa's public water system was estimated at 102,201 in 2003. There were approximately 30,984 residential accounts, 3,407 commercial/institution accounts and 6 industrial accounts. Overall per capita usage was 183 gpcd.

D. WASTEWATER TREATMENT

Odessa provides wastewater treatment to its citizens as well as several industrial districts and by contract to other areas outside the city limits. Approximately 2 MGD of wastewater is provided to the Gulf Coast Authority industrial wastewater treatment plant. All other wastewater is treated at the Bob Derrington Water Reclamation Plant. This plant is rated at 12.7 MGD and receives approximately 6 MGD; therefore treatment capacity is not an issue.

E. REUSE

Odessa has a very active reuse program including industrial, irrigation, and residential customers. Contractually, the City has obligated more than the 6 MGD which it receives at its wastewater treatment plant. In reality, however, there is always some amount of wastewater discharged due to the varying needs of our customers and weather related issues. The City is currently working with our water provider, CRMWD, to determine if it is feasible to return the unused effluent to the potable water supply. The existing reuse projects are a major portion of our water conservation program with approximately 440 million gallons conserved from the potable water supply in 2004.

III. GOALS

A. GALLON PER CAPITA PER DAY (gpcd) REDUCTION

The City of Odessa will strive to reduce its gpcd usage by 1 gpcd annually over the next five years and another 0.5 gpcd annually in the subsequent five year period. This would potentially reduce the per capita usage to 176.5 gpcd in 2015. This goal will be reviewed annually and adjusted if needed to compensate for factors such as new or changing industrial users, trends in weather, or available water sources.

B. WATER LOSS REDUCTION

Over the next 5 years, the City will strive to reduce its unaccounted for water to 10% as an annual average and maintain 8 to 10% during the subsequent 5 years.

IV. PLAN ELEMENTS TO REALIZE GOALS

A. PLUMBING CODE

The City of Odessa has adopted the 2000 International Plumbing Code which requires installation of water conserving devices in new construction. New construction will not be certified and issued a Certificate of Occupancy unless it meets the City of Odessa's Plumbing Code requirements.

B. WATER BILLING



1. Water Rate Structure

The City of Odessa has adopted and will maintain a uniform block water rate to encourage water conservation. These rates are evaluated on an annual basis during the budgeting process to ensure that sufficient funds are available to meet financial obligations, capital needs, and operation and maintenance needs.

2. Cut Off For Unpaid Bills

Customers who do not pay for water service have their water service terminated approximately 20 days after the original due date. Service is not reactivated until payment arrangements are made.

3. Water Theft.

When water theft is determined, service is immediately disconnected and will not be reinstated until all fines and fees are paid.

C. METERING

1. Master Meters are currently installed at the Water Treatment Plant and are calibrated monthly. An accuracy of plus or minus 5.0% is required for these meters.

2. Universal metering is required of all customer accounts including City owned and operated facilities. All new construction is required to be metered.

3. The following maintenance schedule is used for system meters.

a. 1 inch and smaller – replaced every 7 years or 700,000 gallons.

b. 1 inch to 4 inches – tested every 7 years and repaired or replaced if necessary.

c. Greater than 4 inches – tested every 2 years and repaired or replaced as necessary.

D. LEAK DETECTION AND REPAIR

1. Customer Leaks

Through its customer billing system, the City of Odessa monitors water consumption, inspects meters which vary significantly from previously established norms, and assists the customer in determining a leak in their system.

2. System Leaks

The City of Odessa monitors for leaks in accordance with its Leak Detection Program. Any reported leaks are isolated and repaired as quickly as possible.

3. Capital Improvements Program

As deemed appropriate during the budgeting process, capital funds will be budgeted for replacement of infrastructure.

E. ACCOUNTING SYSTEM

An accounting system will be maintained which tracks water pumped, water delivered and water metered to the customer. From this information, water losses will be calculated and tracked on a monthly and annual basis. The water losses will be monitored on a regular basis to determine unusual trends and assist in regulating water losses. The use of water will be segregated into the following use classes: residential, commercial, public/institutional and industrial.

F. PUBLIC EDUCATION

The City of Odessa will provide information to its customers on how to conserve water inside homes and buildings, in landscaping and lawn care. This information may be provided through mailouts, information supplied to schools, the City's website or other means.

G. REUSE WATER

Although the City has contractually obligated all of its reuse water, effluent is still discharged. Odessa will seek to find other beneficial uses of this effluent including working with CRMWD to determine the feasibility of returning the water to the drinking water supply.

SECTION 8 – DROUGHT CONTINGENCY PLAN

I. INTRODUCTION

This revision of the Drought Contingency Plan is established to protect the integrity of water supply facilities including domestic uses, sanitation and fire protection, and to protect and preserve public health, welfare and safety and minimize the adverse impacts of water supply shortages or other emergency conditions. The Plan is submitted to the Texas Commission on Environmental Quality in compliance with the requirements of Title 30, Texas Administrative Code, Chapter 288.

Water uses regulated or prohibited under this Drought Contingency Plan (the Plan) are considered to be nonessential and continuation of these uses when the Plan is implemented will constitute a waste of water and will subject the offender to the penalties allowed in Section XI.

II. PUBLIC INVOLVEMENT

The City of Odessa provided opportunity for public input to this Plan by a Public Hearing.

### III. PUBLIC EDUCATION

- A. The City of Odessa will periodically provide the public with information about the Plan including the conditions under which each stage of the Plan will be initiated and terminated and the drought response measures to be implemented in each stage. This information will be provided by means of a mailout and posting on the City's website.
- B. When trigger conditions requiring mandatory restrictions appear to be approaching, the public will be notified through the local newspaper, media, the City's website and the government access channel.
- C. When the trigger conditions have passed, the public will be notified through the local newspaper, media, the City's website and the government access channel that the drought contingency measures can be abated or reduced. Measures will be outlined for any reduced measures.
- D. Through the period of the trigger condition, regular information will be provided to the public to inform them of the cause of the condition and the requirements for water reduction.

### IV. AUTHORIZATION

The Administrator or his/her designee is authorized to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety or welfare. The Administrator also has the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

### V. CRITERIA OF INITIATION AND TERMINATION OF DROUGHT STAGES

The Administrator or his/her designee shall monitor the water supply and demand conditions on frequency sufficient to determine if the trigger conditions are met to initiate or terminate each stage of the Plan.

### VI. TRIGGERS

#### A. MILD CONDITIONS

##### 1. Requirements for initiation

Daily water demands exceed 90% of treatment plant's capacity to produce or pump water for three consecutive days.

##### 2. Requirements for termination

All triggering events have ceased to exist for a time period deemed appropriate by the Administrator.

B. MODERATE CONDITIONS

1. Requirements for initiation

Daily water demands exceed 95% of treatment plant's capacity to produce or pump water for three consecutive days.

2. Requirements for termination

All triggering events have ceased to exist for a time period deemed appropriate by the Administrator.

C. SEVERE CONDITIONS

1. Requirements for initiation

Daily water demands exceed 98% of treatment plant's capacity to produce or pump water for three consecutive days or the moderate conditions have remained in effect for an extended period, as determined by the Administrator.

2. Requirements for termination

All triggering events have ceased to exist for a time period deemed appropriate by the Administrator.

D. EMERGENCY CONDITIONS

1. Requirements for initiation

Emergency conditions can be invoked by the Administrator under the following conditions:

- a. Extended duration of severe conditions.
- b. Extreme operational conditions such as major line breaks, pump or system failures which cause loss of capability to provide normal water service.
- c. Natural or man-made contamination of the water source(s).

2. Requirements for termination

All triggering events have ceased to exist for a time period deemed appropriate by the Administrator.

## E. OTHER TRIGGERS

### 1. Requirements for initiation

The Administrator can take the following conditions into consideration in determining if any of the trigger stages should be implemented:

- a. Water distribution pressures.
- b. Imminent weather conditions.
- c. Treated water storage reservoir levels.
- d. Treatment and transmission facilities conditions.
- e. Request of the Colorado River Municipal Water District due to limitation in available water supplies or their transmission facilities.
- f. Other conditions deemed appropriate by the Administrator.

### 2. Requirements for termination

All triggering events have ceased to exist for a time period deemed appropriate by the Administrator.

## VII. NOTIFICATION

### A. PUBLIC

The Administrator will notify the public that any of the above trigger conditions have been implemented and the actions to be taken by one or more of the following means:

1. Posting in the Odessa American.
2. Public service announcements.
3. TV and radio news stories.
4. Posting on City's website and government access channels.
5. Other means as deemed appropriate.

### B. ADDITIONAL NOTIFICATIONS

1. The Administrator will notify the following entities or individuals as deemed necessary based on the conditions:



- a. Mayor and Council
- b. City Manager
- c. Fire Department
- d. Emergency Management Coordinator
- e. Critical water user list
- f. Major water users
- g. Ector County Utility District, if applicable
- h. TCEQ

**Note: The TCEQ must be notified whenever mandatory restrictions are imposed.**

2. The Administrator will determine the most effective means of notifying the above individuals or entities but the use of phone calls, letters, emails or faxes may be used.

## VIII. TRIGGER CONDITION RESPONSES

### A. MILD CONDITIONS

1. Target  
Achieve a voluntary 1 to 5 percent reduction in daily water demand.
2. Best Management Practices
  - a. Raise public awareness of need to conserve water supply.
  - b. Request voluntary reductions in nonessential water use.
3. Water Use Restrictions
  - a. Inform public through the news media that the trigger condition has been met and customers should look for ways to voluntarily reduce water use and discontinue water use for non-essential purposes.
  - b. Notify major industrial users of the situation and request voluntary water use reductions.



- c. Request that water customers voluntarily limit irrigation of landscaped areas between the hours of midnight and 10:00 am and 5:00 pm to midnight. Designated watering days may also be established by the Administrator.

## B. MODERATE CONDITIONS

### 1. Target

Achieve a 5 to 10% reduction in daily water demand.

### 2. Best Management Plan

- a. Implement mandatory restrictions on nonessential water uses.
- b. Reduce fire hydrant flushing except where needed to maintain water quality.

### 3. Water Use Restrictions

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

- a. Irrigation of landscaped area with hose-end sprinklers and automatic irrigation systems shall be limited to days designated by the Administrator and to the hours of 12:00 midnight until 10:00 am and between 8:00 pm and midnight. However, irrigation of landscaped areas is permitted at any time if it is by means of a hand-held hose, faucet filled bucket or watering can of 5 gallons or less or drip irrigation.
- b. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle must be done with a hand-held bucket or hose equipped with a positive shutoff nozzle. Such washing is prohibited except on designated water days between the hours of midnight and 10:00 am and between 8:00 pm and midnight. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. 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 are 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 water days between the hours of midnight and 10:00 am and between 8 pm and midnight.



- 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. Fountains or ponds supplied by reuse water or other sources than those provided by the City of Odessa are not subject to these regulations.
- 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 Odessa.
- f. Use of water for the irrigation of golf course greens, tees, and fairways is prohibited except on designated watering days between the hours of midnight and 10:00 am and between 8 pm and midnight. However, if the golf course utilizes a water source other than that provided by the City of Odessa, the facility shall not be subject to these regulations.
- g. All restaurants are prohibited from serving water to patrons except upon request of the patron.
- h. 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, unless determined to be essential by the State;
  - 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).

## C. SEVERE CONDITIONS

### 1. Target

Achieve a 10 – 15 % reduction in daily water demand.

### 2. Best Management Practices



- a. Implement ban on certain types of non-essential water uses.
- b. Consider implementation of a surcharge for excess water usage.
- c. Discontinue all fire hydrants flushing except where critical to maintaining water quality.
- d. Reduce or, if necessary, discontinue irrigation of public landscaped areas irrigated with the raw or potable water sources.

### 3. Water Use Restrictions

- a. Irrigation of landscaped areas except on designated days between the hours of 6:00 am to 10:00 am and between 8:00 pm and midnight shall be prohibited. All watering must be by hand-held hoses, buckets or drip irrigation. Use of hose-end or hand-held sprinklers and permanently installed automatic sprinklers are prohibited at all times.
- b. At the discretion of the Administrator, due to continued or extremely severe conditions, watering of all landscaped areas may be prohibited.
- c. Public water use for the following non-essential uses will be prohibited:
  - 1) Street washing;
  - 2) Filling swimming pools;
  - 3) Washing of cars and other vehicles except required for public health and safety;
  - 4) Construction uses from fire hydrants.
- d. Other limits for water use for industrial, commercial, and residential customers as deemed necessary by the Administrator.

## D. EMERGENCY CONDITIONS

### 1. Target

Reduce water usage as deemed necessary by the Administrator to alleviate the Emergency Conditions, maintain fire flows, and/or State requirements for the maintenance of distribution systems.

### 2. Best Management Practices

Implement emergency response procedures appropriate for the type and anticipated duration of the emergency.

3. Water Use Restrictions

- a. Contact all large water users to require that they cease all landscape irrigation and reduce all other water uses as much as possible.
- b. Implement Severe Condition restrictions as needed and practical in time frame of emergency for all other customers.
- c. Implement Emergency Response Program as appropriate.

E. WATER ALLOCATIONS

In the event a water shortage threatens public health, safety and welfare, City Council may implement a surcharge system for water usage over specified volume for residential, commercial and industrial customers.

IX. UPDATE OF TRIGGER CONDITIONS

The City of Odessa will periodically examine its water production requirements and its ability to maintain these requirements to determine if trigger conditions should be revised. If it is determined that trigger conditions need to be revised, the Texas Commission on Environmental Quality will be contacted.

X. VARIANCE

The Administrator 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 the Plan shall file a petition for variance with the City of Odessa within 5 days after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the Administrator 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 Plan.
- E. Description of the relief requested.
- F. Period of time for which the variance is sought.
- G. Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
- H. Other pertinent information.

Variances granted by the City of Odessa shall be subject to the following conditions, unless waived or modified by the Administrator or his/her designee:

- A. Variances granted shall include a timetable for compliance.
- B. Variance can be terminated if the terms of the variance are not met by the customer.
- C. Variances granted shall expire when the Plan is no longer in effect.

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

## XI. ENFORCEMENT AND PENALTIES

- A. No person shall knowingly or intentionally allow the use of water from the City of Odessa for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this, the Odessa Water Conservation and Drought Contingency 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 Administrator, in accordance with provisions of this Plan.
- B. Any person, including a person classified as a water customer of the City of Odessa, 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.

- C. Any person who violates this Plan is guilty of a misdemeanor and, upon conviction shall be punished by a fine of not more than Two Thousand and no/100 Dollars (\$2,000). 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 Administrator shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of a reconnection charge, established by City policy, and any other costs incurred by the City of Odessa in discontinuing service and all assessed fines. In addition, suitable assurance must be given to the Administrator 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.
- D. Any employee of the City of Odessa, police officer, or other person designated by the City Manager, may issue a citation to a person he/she reasonably believes to be in violation of this Plan. 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 municipal court on the date shown on the citation for which the date shall not be less than 3 days nor more than 5 days from the date the citation was issued. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of a violator, or to a person over 14 years of age who is a member of the violator's immediate family or is a resident of the violator's residence. The alleged violator shall appear in municipal court to enter a plea of guilty or not guilty for the violation of this Plan. If the alleged violator fails to appear in municipal court, a warrant for his/her arrest may be issued. A summons to appear may be issued in lieu of an arrest warrant. These cases shall be expedited and given preferential setting in municipal court before all other cases.