CITY OF JASPER
Department of Public Works
P.O. Box 610
Jasper, Texas 75951

Erik Rogers
Water Superintendent

409-383-2215
erogers@jaspertx.org

05/07/2019

Mrs. Denise

Will you please add to the agenda the approval of the water conservation plan and drought contingency plan For the 05/13/2019 council meeting.

Thank you,

Erik Rogers

Water Conservation Plan

05/01/2019

1 GENERAL

1.1 Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and/or to protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the City of Jasper adopts the following water conservation plan.

Water uses regulated or prohibited under 1he Water Conservation Plan (the Plan) are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water subjects the offenders to penalties as established by the City Council of the City of Jasper.

1.2 Definitions

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

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

Commercial and institutional water use: water use much 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 me consumption of water, reduce me loss and/or waste of water, improve me efficiency of me use of water, and increase me recycling and reuse of water so 1hat a supply is conserved and made available for future or alternative uses.

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

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

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

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

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

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

Municipal per capita water use: The sum total of water diverted into a water supply system for residential, commercial, and public and institutional uses divided by actual population served.

Municipal use: The use of potable water within or outside a municipality and its environs whether supplied by a person, privately owned utility, political subdivision, or other entity as well as the use of sewage effluent for certain purposes, including the use of treated water for domestic purposes, fighting fires, sprinkling streets, flushing sewers and drains, watering parks and parkways, and recreational purposes, including public and private swimming pools, the use of potable water in industrial and commercial enterprises supplied by a municipal distribution system without special construction to meet its demands, and for the watering of lawns and family gardens.

Municipal use in gallons per capita per day: The total average daily amount of water diverted or pumped for treatment for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment fur potable use by population served. Indirect reuse volumes shall be credited against total diversion volumes for the purpose of calculating gallons per capita per day for targets and goals.

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 fur 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 ally motor vehicle, motorbike, boat, trailer, airplane or other vehicle
c. Use of water 10 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)
i. Use of water from hydrants for construction purposes or any other purposes other1han fire fighting

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

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

Public water supplier: An individual or entity that supplies water 10 the public for human consumption.

Regional water planning group: A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code, §16.053.

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

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

Water conservation plan: A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a

separate document identified as such or may be contained within another water management documents.

Water loss: The difference between water diverted or treated and water delivered (sold). Water loss can result from:

a. inaccurate or incomplete record keeping,
b. meter error;
c. unmetered uses such as firefighting, line flushing, and water for public buildings and water treatment plants;
d. breaks; and
e. water theft and unauthorized use.

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

1.3 Review and Modification of Plan

This water conservation plan will be reviewed and updated, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The City will review and update its water conservation plan not later than May I, 2009, and every five years after that date to coincide with the regional water planning group.

1.4 Authorization, Implementation and Enforcement

The City Manager, or his/her designee, is hereby authorized and directed to implement and enforce this Water Conservation Plan. Appendix A is a copy of Ordinance No. 41309-1 which formally adopts this plan, outlines the implementation and enforcement authority of the City Manager, and provides for the most recent update.

1.5 Application

The provisions of tills Plan shall apply to all persons, customers and properly utilizing water provided by the City of Jasper. The terms person and customer as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities. This Plan was adopted and placed into effect by the City Council of the City of Jasper in accordance with Ordinance No. 41309-1.

1.6 Severability

It is hereby declared to be the intention of the City Council of the City of Jasper that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the City Council of the City of Jasper with the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

2 Utility Profile

The City of Jasper Utility Profile is found under Appendix B to this Water Conservation Plan.

3 Water Conservation Plan

3.1 Specification of Conservation Goals and Objectives

In accordance with 30 TAG Part I, Chapter 288, Subchapter C, Rule 288.2 (a)(1)(C), the following objectives and five (5) and ten (10) year targets have been established:

The objectives of this water conservation plan are as follows:

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

Five-year targets based on 5-year rolling averages

1. Reduce municipal per capita per day consumption by 3%
~~1.~~2. Reduce residential per capita per day consumption by 3%
~~2.~~3. Reduce the level of unaccounted water losses to 15%

Ten-year targets based on 5-year rolling averages

1. Reduce municipal per capita per day consumption by an additional 3%.
~~1.~~2. Reduce municipal per capita per day consumption by an additional 3%.
~~2.~~3. Reduce the level of unaccounted water losses to 11%.

To accomplish these goals the City of Jasper will utilize the programs and policies in this Plan such as accurate metering devices, universal metering, meter testing and repair, periodic meter

replacement, control of unaccounted water, public education, non-promotional water rates, and leak detection and repair. These programs have already begun or will begin immediately and continue until goals are attained.

3.2 Metering

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

The City practices a meter change-out program whereby meters are changed out every 15 years. Additionally, selected meters are randomly field tested for accuracy. Generally, the city does not use repaired meters in the system.

Each Water Treatment Plant has metering on the well head discharge. The metering is accomplished through turbine meters. Certified calibration is performed annually.

3.3 Determination and Control of Unaccounted-for Water

a. The City makes a monthly accounting of water delivery efficiencies. At the end of each month, the Water Superintendent calculates the difference between water pumped to the system and water delivered through the meters. This calculation is reduced to a percentage of water losses. This is maintained and reviewed on an annual basis to determine effectiveness of 1he water conservation efforts.
b. Leaks are reported by any municipal employee as well as the general public.
c. The Water Treatment Plants monitor system pressures at all times and sizeable leaks are noticeable and reported as soon as noted.
d. All leaks are repaired as soon as practicable.
e. Areas of the water distribution system in which numerous leaks and line breaks occur are targeted for replacement as funds are available.

3.4 Public Education

The continuing public education and information campaign on water conservation includes the following elements:

a. Insert water conservation information with water bills. Inserts will include material developed by City of Jasper staff and material obtained from the TWDB, the TCEQ, and other sources,
b. Encourage local media coverage of water conservation issues and the importance of water conservation
c. Make information on water conservation available on its website and include links to the Texas Smartscape website and to information on water conservation on the TWDB and TCEQ web sites.

3.5 Water Rates

The City of Jasper has water rates in place for various rate classes with block rate structure. When the customer reaches a specified consumption, the rate increases for all usage above the specified gallonage.

Appendix C is a copy of the current water rates from the Code of Ordinances.

The City also has adopted a Drought Contingency Plan, whereby if activated, allows for imposing a water rate surcharge to promote water conservation.

3.6 Reservoir Systems Operations

The City of Jasper obtains its water supply entirely from groundwater wells and does not have surface water supplies for which to implement a reservoir system operation plan.

3.7 Coordination with Regional Water Planning Groups

The water service area of the City of Jasper is located within the Region I Water Planning area and a copy of this Plan has been provided to the Region I Water Planning Group (RWPG).

3.8 Record Management System

a. The Water Superintendent monitors and maintains records of:
   - Water pumped from each of the water wells to the distribution system
   - Water usage within the distribution system other than permanent metered usage - leaks, flushing,
   - fire flows, construction, etc.
   - Water loss calculations

b. The Finance Department and Customer Service Departments maintains records of:
   - Water usage metered within the system
   - Water usage calculations including residential, commercial and industrial.

Beginning in 2009, the City will prepare a water audit for calendar year 2008 in accordance with Texas Water Development Board guidance as required by Section 16.0121 of the Texas Water Code and amended by the 78th Texas Legislature and will prepare such audit each year.

3.9 Wholesale Contracts

The City currently has no Wholesale contracts with any individuals or entities. Every contract for the wholesale sale of water by customers that is entered into, renewed, or extended after the adoption of this water plan will include a requirement that the Wholesale customer and any wholesale customers of that wholesale customer develop and implement a water conservation

plan meeting the requirements of Title 30, Part 1, Chapter 288, Subchapter A, Rule 288.2 of the Texas Administrative Code. The requirement will also extend to each successive wholesale customer in the resale of the water.

3.10 Plumbing Codes

The City operates under the 2003 International Plumbing Code. This code has been formally adopted by the City Council and is included in the City of Jasper Code of Ordinances. See Appendix D "Code of Ordinances, Plumbing and Gas Codes." The City routinely inspects new construction, remodeling, add-ons, etc., through building permits. All new construction is required to meet state and federal rules regarding water -conserving plumbing fixtures.

The City does not offer a program for the replacement or retrofit of water-conserving plumbing fixtures in existing structures other than what would be required through the permitting process for re- models and building upgrades.

3.11 Recycling and Reuse

The City has no program regarding the recycling of wastewater plant effluent nor the reuse of gray water.

3.12 Other Conservation Measures

The City recognizes that in order to accomplish the goals and objectives of this water conservation plan, other conservation measures may be required that are not outlined within the body of this document The City is aware of the Water Conservation Best Management Practices Guide published by the Water Conservation Implementation Task Force in November 2004. As deemed necessary, the City will implement other measures either from the BMP guide or as otherwise seen fit to assure compliance with the plan.

Drought Contingency Plan

05/01/2019

A. GENERAL

Jasper obtains its water supply from several deep wells located within the City. Four (4) wells operate regularly. Several older wells have been abandoned and plugged.

The Jasper aquifer supplying the wells outcrops in the northern part of Jasper County where it is recharged. Local water supplies are expected to remain adequate regardless of drought conditions. The intake levels of the wells are 550 to 775 feet below the surface. The water table for the aquifer is reportedly near the elevation of local creeks, or 150 to 200 feet below the highest local elevations.

Local water supplies could be interrupted for a number of reasons, however. The most likely event is local power failure, which could easily affect pumps at all wells. Other possibilities include equipment failure, storage tank failure, severe storm damage, severe freezing conditions and aquifer contamination.

Since all wells are located in the community, there are no major transmission lines subject to breakage. Any break in distribution lines could be isolated and its effect localized.

Any water supply emergency, whether acute or protracted, requires a responsible agency to manage the situation. Such crisis management includes maintenance of the existing supply if possible, controlling or restricting usage in order to conserve water, and obtaining alternate sources of supply if necessary. In most cases, the City, as the water purveyor, will assume this responsibility. In the event of disasters such as major storms, riots, or acts of war, some of the City's functions may be overridden by emergency management authorities.

B. TRIGGER CONDITIONS

1. Goal of Policy
   The trigger conditions listed below are intended as guidelines to help the City determine (a) when it is necessary to implement preliminary or emergency measures, (b) which measures should be implemented, and (c) the extent of such measures. The guidelines can also be used to help decide whether to upgrade, continue, downgrade or terminate the measures which have already been taken in a given situation.

   These guidelines are not intended to be followed automatically and blindly. An automatic approach might be preferable for communities with a recurring problem of a fixed nature, such as limited transportation/treatment capacity or a surface reservoir subject to depletion during a drought. However, in the case of Jasper, no recurrent problems are anticipated in the foreseeable future. In any event, the City needs to be prepared for the unexpected.

   In any water supply emergency, the City must rely chiefly on the judgement of the operator and his assistants, along with any specialized advice which they might obtain. These guidelines are intended to help the City assess a situation and make necessary decisions more easily. In no event are they meant to replace the sound judgement of City personnel.

2. Focus of Emergency Measures

In the event of a water supply emergency, the City will act toward one or more of the following goals:

a. Keeping existing supply and/or distribution systems operative.
b. Preventing further loss or contamination of water.
c. Controlling or restricting usage in order to conserve water.
d. Preventing public health problems which could result from a contaminated water supply.
e. Obtaining alternate sources of water.

3. Basis for Trigger Conditions.

Most trigger conditions for Jasper will be qualitative rather than quantitative. Particular attention, however, must be devoted to two (2) measurable parameters: the rate of total water usage and the levels of water in the ground and elevated storage tanks, along with the duration of critical values for these parameters.

A number of factors can govern system capacity - aquifer capacity, well size and depth, well pumping capacity, treatment capacity and transportation/distribution capacity. The local aquifer which supplies the wells has adequate capacity for the entire community for many years. The well size and depth are more than adequate for the existing pumping capacity

The City is served by four (4) wells located within the community at altitudes in the 240 to 290 foot range. Well No. 6, located on the east edge of town, has a capacity of 1,700 gpm, Well No 8, located north of downtown on the former power plant site, has a capacity of 2,200 gpm, Well No. 9, located on the far east side of town next to the Texas Department of Corrections, has a capacity of 1,350 gpm and Well No. 10, located in the south central part of town near the high school, has a capacity of 2,200 gpm, Depths of the wells are 764 feet for Well No. 6; 802 feet for Well No 8, 998 feet for Well No. 9 and 840 feet for Well No. IO. All four (4) wells are used full time.

Ground and elevated tanks are located on the sites of Wells Nos. 6, 8, 9 and 10. An additional elevated tank and an adjacent ground storage tank are located on a high hill in the north end of town (around elevation 340). Tank capacities are 500,000 gallons each for the ground and elevated tanks for Well No. 6; 400,000 gallons elevated and 750,000 gallons ground at Well No 8, 150,000 gallons elevated and 250,000 gallons ground storage at Well No. 9 site, 750,000 gallons elevated and 750,000 gallons ground storage at Well No. 10 and 100,000 gallons elevated and 250,000 ground storage at the north end tank site.

Construction of the tanks in the north end allowed the City to divide its distribution system into two (2) pressure planes. The upper plane, served by the northernmost elevated tank, covers the far north end of town. The lower plane, covering the remainder of the system, is served by the other elevated tanks. The two (2) planes are separated by pressure reducing valves.

The governing capacity of the system is well pumping capacity. Each of the wells

contains a single submersible pump with an electric motor. Existing pumping capacities are Well No. 6@ 1,700 gpm; Well No. 8 @2,200 gpm; Well No. 9@ 1,350 gpm; Well No. 10@2,200 gpm

There are no problems with transmission of the water from the wells to the system since all wells are located within the community adjacent to developed sections. Distribution capacity is adequate for existing development, although some part of the system may need upgrading before reaching full development. Pressure is adequate throughout the system.

All well sites and the north end tank site each have an emergency generator with auto-transfer switch and weekly exerciser. Each generator is sized to accommodate the site's full-load requirements plus 40%.

Firm (or safe) system capacity can be taken as 5,250 gpm (7,560,000 gpd). This is based on having the largest well out of service for a length of time because of pump failure. Water Usage over the last five years averages approximately 1,483,000 gpd., with a peak daily usage of 4,637,000 gallons during extremely dry weather.

4. Mild Conditions

   a. * Water demand is approaching the safe capacity of the system on a sustained basis. Sustained water usage over 6,000,000 gpd. (five (5) consecutive days) should be taken as a trigger condition for mild conditions.
   b. * Mild contamination is noted in the well water, but water can still be treated by existing facilities by means such as increasing chlorine dosage; or contamination is reported in up dip portions of aquifer.
   c. * Additional well drilling in the vicinity threatens interference with local wells.
   d. ** Water levels in tanks are consistently below 3/4 full (five (5) days uninterrupted).
   e. ** Local power failures are imminent as a result of power station failures, storms or excessive power demand in the area and at least one (1) emergency generator is not functional.
   f. ** Performance of well pumps or other equipment indicates imminent failure.
   g. ** (For north end only) - Performance of north end booster pumps indicates imminent failure.
   h. ** (For north end only) - Transmission line to north end tank site is in danger of imminent failure.
   i. *** Severe freezing conditions are forecast and widespread breakage of home plumbing and/or rupture of distribution lines is anticipated.
   j. *** The Jasper area is under a severe storm warning and falls in the path of the storm.

5. Moderate Conditions

   a. * Water demand occasionally reaches safe limit of system (two (2) days within a 30-day period) and failure of any pump or chlorine feeder could reduce the level of service to the system.

      Safe limit is 7,560,000 gpd. as discussed above.

b. * Contamination of well water is approaching limit of treatability with existing facilities.
c. ** Any two (2) sets of storage tanks are out of service due to structural failure, leakage or contamination.
d. ** Water level in tanks is consistently below half full (three (3) days uninterrupted).
e. ** Two (2) major well pumps (No. 6, 8 or 10) or related facilities) have been damaged from severe storm.
f. ** (For north end only)- The booster pumps for the north end tank have experienced partial or complete failure.

Note: North end can receive service through the main distribution system without use of north end tanks, but pressures may be reduced.

g. ** (For north end only) - The transmission line to the north end tank has failed.
h. *** Severe freezing conditions have resulted in widespread damage to home plumbing and/or poor distribution lines.
i. *** Power failure plus loss of emergency generator power has two (2) major well pumps (No. 6, 8 or 10) out of service.
j. *** Two (2) major well pumps (No. 6, 8 or 10) have failed due to mechanical problems, but at least one (I) major well remains operable.

* Initiated by Council
** Initiated by Operator or Council
*** Initiated by Operator

6. Severe Condition

a. * Water demand is exceeding safe capacity (7,560,000 g.p.d.) on a regular basis (five (5) consecutive days).

b. ** Well water is so contaminated that it cannot be treated with existing facilities, or such contamination is imminent because of nearby aquifer pollution.

c. *** An immediate health or safety hazard could result from actual or imminent failure of system component

d. *** Water levels in storage tanks are too low to provide adequate fire protection (below 1/3 full for a twelve-hour period).

e. *** All sets of major storage tanks are out of service.
f. *** Rupture of distribution lines has resulted in loss of water from storage tanks and the wells are not capable of refilling tanks quickly.

g. *** All well pumps are out of service.
h. *** Storm damage has put all wells out of service.
i. *** Total power loss to the entire community or area and loss of emergency generator power at three (3) or more of the well sites.

* Initiated by Council

** Initiated by Operator or Council
*** Initiated by Operator

7. Termination of Emergencies

Trigger conditions for termination or downgrading of an emergency are not broken down by severity of crisis but are listed as one (1) group. City personnel and/or City Council must use judgement as to whether to upgrade, continue, downgrade or discontinue an emergency. The decision to terminate or downgrade an emergency will normally be made at the level (City Council or Operator) at which the emergency was declared.

a. Water demand has been reduced to safe levels and is expected to remain stable.

b. Actual contamination of water supplies is ended or is under control; or threat of contamination has subsided; or alternate supply has been obtained on temporary or permanent basis,
c. Power has been restored and no additional power failures are anticipated.
d. Failure of system components has been ave1ted or repaired; or, temporary units have been substituted; or alternate supplies have been obtained.
e. Water levels in storage tanks have been restored to normal.
f. Freezing conditions have ended without damaging the water system; or damage has been repaired
g. The storm has passed without damaging the water system; or damage has been repaired.

C. DROUGHT CONTINGENCY MEASURES

1. General

The City ordinance contains measures such as prohibition or restriction of outdoor water use; a standby pricing structure with higher incremental prices than for normal conditions; flow restricting devices; and a standby rationing plan with penalties for metered usage in excess of a preset limit.

Wholesale Contracts

Pro-rata curtailment of water deliveries to or diversions by wholesale water customers shall be in accordance with Texas Water Code 11.039.

The City currently has no wholesale contracts with any individuals or entities. Every contract for the wholesale sale of water by customers that is entered into, renewed, or extended after the adoption of this plan will include a requirement that in case of a shortage of water resulting from drought, the water to be distributed shall be diverted in accordance with Texas Water Code 11.039. The requirement shall also extend to each successive wholesale customer in the resale of the water.

The City has no immediate plans to secure an alternate source of water for the community. The four (4) existing wells are adequate to serve the community now and for future growth. Either major well by itself could presently se1ve the community during an emergency. The City will monitor the adequacy of the existing facilities and may seek alternate supplies in the future if a standby supply should become necessary.

Interconnections with neighboring systems for emergency use do not appear feasible at this time.

All major wells will seldom be out of service for any length of time simultaneously. Only an extraordinary event such as a severe storm, riots, an act of, war, a major fire (or chain of fires), or severe aquifer pollution would put the City in a severe water crisis. In such an event, drinking water would be hauled in until the crisis passed. All of the disasters above (other than aquifer pollution) would probably be managed by emergency management authorities rather than by the water purveyors.

2. Mild Condition Measures

Target: Achieve a 10% reduction in total water usage.

a. Inform all customers that a low level emergency has been reached. In the case of a slowly developing crisis, notice could be through news media in conjunction with mailing. For a more imminent crisis, the news media should be used along with flyers passed out from door to door. Flyers should contain a date and signature along with the message to make it plain that they represent current developments.

   Some situations such as failure of a single piece of equipment could be handled by City personnel without notifying the public.
b. Warm customers to start reducing water use; protect pipes against freezing; and/or store water for emergency use, as appropriate. (May apply only to north end customers for situations affecting only northern pressure plane).
c. Recommend a voluntary lawn watering schedule, if appropriate,
d. Look into possibility of alternate supply, if appropriate,
e. Make or arrange for repairs, if appropriate,
f. Take action against drilling of neighboring wells; if appropriate,
g. Take steps toward increasing system capacity, if usage is rearing safe capacity.
h. Keep customers updated as appropriate.

3. #Moderate Conditions Measures

a. Notify customers of intermediate level emergency by appropriate means.
b. * Impose mandatory lawn watering schedule, if appropriate (in dry weather conditions), under authority of ordinance.
c. * Prohibit wasteful uses (certain uses, mainly outdoor, defined as "Water Waste" in ordinance).
d. In the event of contamination, notify customers so that they can seek bottled drinking water supply or be prepared to purify City water; if needed.
e. Take steps toward obtaining alternate supply, if appropriate,
f. * Impose surcharge system, if appropriate,
g. Make or arrange for repairs, if appropriate.
h. Take action against drilling of neighboring wells, if appropriate.
i. Take measures toward increasing system capacity, if appropriate.
j. Keep customers updated, as appropriate

* See ordinance for various procedures for businesses dependent on outdoor water usage.

Some measures may apply only to north end customers for situations affecting only upper pressure plane.

D. INFORMATION AND EDUCATION

Public Hearing

The City of Jasper held a public hearing on the Drought Contingency Plan on November 15, 200I and City Council Readopted the Drought Contingency Plan on November 19, 200I. (The original Plan was adopted September 18, 199L) The adoption ordinance and other documentation are included in Attachment A

Coordination with Regional Water Planning Groups

The water service area of the City ofJasper is located within the Region I Water Planning area and a copy of this Plan has been provided to the Region I Water Planning Group (RWPG).

Public Notification

One (1) or more of several measures should be taken to inform customers of crisis conditions and to keep them updated. These measures include:

1. Radio and television announcements. (Nearest television station is in Lufkin, nearest radio station is in Jasper).
2. Press releases in Jasper NewsBoy and/or Beaumont Enterprise.
3. Letters or flyers mailed to customers (alone or with monthly bills).
4. Letters or flyers hand-delivered to customers in course of meter reading.
5. Letters of flyers hand-delivered to customers in emergency.
6. Telephone calls in cases where emergency notice must be given at night or when only a small neighborhood is involved.
7. Vehicles with loud speakers in emergencies when telephone service is out or when unusually fast notification is necessary

Selection of notification methods depends on the nature and urgency of the crisis. The notifications would state the nature of the crisis, the actions requested of customers and the anticipated duration (if known).

Customers should be warned through brochures well in advance of any emergency what might be required during an emergency.

E. INITIATION PROCEDURES

1. Authority for Action. Except in catastrophes where actions are governed by emergency management authorities, actions should be taken by the operator and/or City Council as authorized in the Ordinance Controlling Water Usage in Emergencies. The city attorney should be notified in advance of any Council action related to water conservation.

   The responsibility for declaring a water supply emergency depends on the nature and urgency of the situation. For slowly developing situations, a resolution can be passed by

the City Council at a regular monthly meeting. As the urgency increases, action may occur at a special meeting, at an emergency meeting, by the City Manager, by the Director of Public Works or by the operator acting on his own. In situations such as hurricanes or riots, action by emergency management authorities may be the overriding factor.

Each action listed in preceding sections is noted as to whether it should be implemented by the operator, by a higher City official or by the Council.

In Section B above, the various trigger conditions are classified with respect to who should declare the emergency, as follows:

* City Council (in regular, special or emergency meeting, as appropriate)
** City Council, if appropriate under circumstances. Operator (or designated subordinate) should first look at the situation and decide whether to initiate the action on his own or to call for a special Council meeting for that purpose.
*** Operator (or designated subordinate) on his own

Even though the operator has declared an emergency without prior Council approval, certain actions dealing with the crisis must be taken by the Council. These actions include restricting or prohibiting outdoor water use; imposing surcharge or rationing plans; and taking legal action against activities which could reduce or contaminate the City's water supply.

2. Advance Planning

The City should prepare a list of all radio stations, television stations and newspapers which may be called on to assist in public notification. Each station or newspaper should be contacted in advance regarding the possible need for emergency assistance of this nature. For each station or newspaper, one (1) or more contact persons should be designated, together with telephone numbers for 24-hour use, if possible.

Lists of potential repair contractors for vital system components should be maintained. Lists of agencies such as neighboring water departments, neighboring fire departments, police and sheriff departments and many offices performing emergency management functions should also be kept ready for emergency use.

Although many potential crisis situations cannot be foreseen, the City should prepare lists of those situations most likely to occur. At least a rough draft of flyers, letters press releases and broadcast messages should be prepared for the most probable situations.

If the need should become apparent, the City should make arrangements with owners of other water systems for an alternate supply for emergencies.

The City should obtain maps in the event of alternate day restrictions on outdoor water usage since some portions of town may lack a visible house numbering system The City should obtain maps showing all streets, lots, condominiums and commercial and recreational users of water. The maps should be marked so that each user can readily be identified as falling into one (1) of two (2) groups (Monday, Wednesday, Friday or Tuesday, Thursday, Saturday). The maps should be published and/or distributed to appropriate users (in a complete or sectional form) well in advance of any water

emergency. The map should also be kept on display or readily available at the City Hall. The map should be updated as new sections are added to the system

F. TERMINATION NOTIFICATION

Council action is mandatory to rescind specific actions taken by the Council to deal with a crisis, such as restricting or prohibiting outdoor water use; imposing surcharges; or imposing rationing.

Council action is normally needed to downgrade or terminate an emergency if the Council: (1) declared the emergency, and/or (2) took specific action to deal with the emergency

EXCEPTION: Cases where the Council set a specific time limit for the crisis or authorized a City official or the operator to end the crisis at his discretion.

The operator (or his designated subordinate) can announce the end of the crisis if no Council action was involved. The operator should also take any appropriate action in connection with the termination.

Once the termination decision has been made, notification should be prompt. If customers are kept under a crisis notice unnecessarily, they will tend to relax vigilance and will also tend to disregard future notices.

Notification procedures and methods should be similar to those for the onset of a crisis. The Council and/or operator should use discretion in selecting the appropriate procedures.

G. IMPLEMENTATION

1. Ordinance. The basis for emergency surcharges and rationing will be by an existing City ordinance.

2. The City will, if necessary in the future, approach owners of other water systems regarding alternate water supplies in emergencies. Agreements for such supplies would probably be by contract.

3. The City must adopt specific resolutions at the beginning and ending of emergencies to initiate/terminate restrictions on lawn watering, prohibition of lawn
4. watering, surcharge rates and rationing. In an extreme emergency, these resolutions can be passed by simple motion and still be valid.

5. The City attorney will be notified prior to any Council action related to conservation in order to review or recommend proposed action as appropriate