

**WATER CONSERVATION  
AND  
DROUGHT CONTINGENCY PLAN  
FOR THE  
SANTO SPECIAL UTILITY DISTRICT**

## **SECTION H: DROUGHT CONTINGENCY AND EMERGENCY WATER DEMAND MANAGEMENT PLAN**

### **1. INTRODUCTION**

The goal of this plan is to cause a reduction in water use in response to drought or emergency conditions so that the water availability can be preserved. Since emergency conditions can occur rapidly, responses must also be enacted quickly. This plan has been prepared in advance considering conditions that will initiate and terminate the rationing program.

A Drought/Emergency Management committee consisting of two board members and the system manager will monitor usage patterns and public education efforts and will make recommendations to the board on future conservation efforts, demand management procedures or any changes to this plan. The committee will develop public awareness notices, bill stuffers, and other methods that will begin and continue as a constant type of reminder that water should be conserved at all times, not just during a drought or emergency. This committee will also review and evaluate any needed amendments or major changes due to changes in the District service area population, distribution system or supply. This review and evaluation will be done on a regular basis of five years unless conditions necessitate more frequent amendments.

The plan will be implemented according to the three stages of rationing as imposed by the board. Paragraph 3 describes the conditions that will trigger these stages.

### **2. PUBLIC INVOLVEMENT**

Opportunity for the public to provide input into the preparation of the plan was provided by the board by scheduling and providing public notice of a public meeting to accept input on the plan. Notice of the meeting was provided to all customers. In the adoption of this plan, the board considered all comments from customers.

### **3. TRIGGER CONDITIONS**

The triggering criteria described below are based on a statistical analysis of the vulnerability of the water source under drought conditions. Weather conditions are to be considered in drought classification determination. Predicted long, cold or dry periods are to be considered in impact analysis.

#### **A. Stage 0 – No Water Shortage Conditions**

The Santo Special Utility District will recognize that no water shortage condition exists when:

1. Water stored in Lake Palo Pinto is more than 13,780 acre-feet or 860 ft. MSL (50% of storage capacity).

#### **B. Stage I – Mild Water Shortage Conditions**

The Santo Special Utility District will recognize that a mild water shortage condition exists when:

1. Water stored in Lake Palo Pinto is equal to or less than 13,780 acre-feet or 860 ft. MSL (50% of storage capacity) and more than 6,279 acre feet or 854 ft. MSL.
2. When total daily water demand equals or exceeds 90% of the safe operating capacity of the system for three consecutive days or 95% of system capacity on a single day.
3. Any mechanical failure of pumping equipment which will require more than 24 hours to repair when no water shortage conditions exist.
4. Water consumption has reached 80 percent of daily maximum supply for three (3) consecutive days.
5. Water supply is reduced to a level that is only 20 percent greater than the average consumption for the previous month.
6. There is an extended period (at least eight (8) weeks) of low rainfall and daily use has risen 20 percent above the use for the same period during the previous year.

Requirements for termination – Stage I of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 10 consecutive days. Upon termination of Stage I, Stage 0 becomes operative. The Santo Special Utility District will notify its customers of the termination of Stage I.

#### **C. Stage II – Moderate Water Shortage Conditions**

The Santo Special Utility District will recognize that a moderate water shortage condition exists when:

1. Water stored in Lake Palo Pinto is equal to or less than 6,279 acre-feet or 854 ft. MSL (25% of storage capacity) and more than 3,392 acre feet or 849 ft. MSL.
2. Average daily water consumption reaches 100% of the safe operating capacity of the system for three consecutive days.
3. Average daily water consumption will not enable storage levels to be maintained.
4. System demand exceeds available high service pump capacity.
5. Any mechanical failure of pumping equipment, which will require more than 12 hours to repair if a mild drought is in progress.
6. Water consumption has reached 90 percent of the amount available for three consecutive days.
7. The water level in any of the water storage tanks cannot be replenished for three (3) consecutive days.

Requirements for termination – Stage II of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 10 consecutive days. Upon termination of Stage II, Stage I becomes operative. The Santo Special Utility District will notify its customers of the termination of Stage II in the same manner as the notification of initiation of Stage I of the Plan.

#### **D. Stage III – Severe Water Shortage Conditions**

The Santo Special Utility District will recognize that a severe water shortage condition exists when:

1. Water stored in Lake Palo Pinto is equal to or less than 3,392 acre-feet or 849 ft. MSL (12.5% of storage capacity).
2. Average daily water consumption reaches 110% of production capacity for a 24-hour period.
3. Any mechanical failure of pumping equipment, which will require more than 12 hours to repair if a moderate drought is in progress.
4. Failure of a major component of the system or an event which reduces the minimum residual pressure in the system below 20 psi for a period of twenty-four (24) hours or longer.
5. Water consumption of 95 percent or more of the maximum available for three (3) consecutive days.
6. Water consumption of 100 percent of the maximum available and the water storage levels in the system drop during one 24-hour period.
7. Natural or man-made contamination of the water supply source(s).
8. The declaration of a state of disaster due to drought conditions in a county or counties served by the District.
9. Reduction of wholesale water supply due to drought conditions.
10. Other unforeseen events which could cause imminent health or safety risks to the public.

Requirements for termination – Stage III of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of 10 consecutive days. Upon termination of Stage III, Stage II becomes operative. The Santo Special Utility District will notify its customers of the termination of Stage III in the same manner as the notification of initiation of Stage II of the Plan.

#### ***4. STAGE LEVELS OF WATER ALOCATIONS***

The stage levels of water allocations are to be placed in effect by the triggers in Paragraph 3. The District shall institute monitoring and enforce penalties for violations of the drought plan for each of the stages listed below. The water allocation measures are summarized below.

##### **a. Stage I - Mild Conditions**

- 1) Alternate day, time of day, or duration restrictions for outside water usage allowed. (District will notify Customers which restriction is in effect)
- 2) The District will reduce flushing operations.
- 3) Reduction of customers' water use will be encouraged through notices on bills or other method.

##### **b. Stage II - Moderate Conditions**

- 1) All outside water use is prohibited (except for a livestock or other exemption or variance granted under this section).

##### **c. Stage III - Severe Conditions**

- 1) All outside watering prohibited.

- 2) Water use will be restricted to a percentage of each customer's prior month usage. This percentage may be adjusted as needed according to demand on the system. Notice of this amount will be sent to each customer.
- 3) District shall continue enforcement and educational efforts.

**NOTE:**

- Refer to your water purchase contract for additional restrictions/requirements that may be imposed by stipulations from the wholesale supplier.
- There may be additional restrictions imposed by governmental entities.
- Meters will be read as often as necessary to ensure compliance with this program for the benefit of all the customers.

### ***5. INITIATION AND TERMINATION PROCEDURES***

Once a trigger condition occurs, the District, or its designated responsible representative, shall, based on recommendation from the chairperson of the Drought Emergency Management Committee, decide if the appropriate stage of rationing shall be initiated. The initiation may be delayed if there is a reasonable possibility the water system performance will not be compromised by the condition. If water allocation is to be instituted, written notice to the customers shall be given.

Written notice of the proposed water allocation measure shall be mailed or hand-delivered to each affected customer upon the initiation of each stage. Notice may be provided electronically if the District has access to an affected customer's email address. If notice is mailed, the water use restrictions can be enforced seventy-two (72) hours after mailing. If hand-delivered or emailed, enforcement can begin twenty-four (24) hours after notice is provided. In addition, upon adoption of Stage II or Stage III, a notice will be placed in a local newspaper or announced on a local radio or television station. The customer notice shall contain the following information:

- a. The date water allocation shall begin,
- b. The expected duration,
- c. The stage (level) of water allocations to be employed,
- d. Penalty for violations of the water allocation program, and
- e. Affected area or areas.

A sample customer notice of water allocation conditions is included in Miscellaneous Transaction Forms of this district service policy.

If the water allocation program extends 30 days then the chairperson of the Drought Emergency Management Committee or manager shall present the reasons for the allocations at the next scheduled board meeting and shall request the concurrence of the board to extend the allocation period.

When the trigger condition no longer exists then the responsible official may terminate the water allocations provided that such an action is based on sound judgment. Written notice of the end of

allocations shall be given to customers. A water allocation period may not exceed 60 days without extension by action of the board.

## **6. PENALTIES FOR VIOLATIONS**

- a. First Violation** – The customer will be notified by a written notice of their specific violation and may result in termination of service. Reconnection will require payment for the service call to restore service. The notice will also inform the customer that additional violations will trigger more severe penalties and may result in termination of service.
- b. Second Violation** - The District may install a flow restricting device in the customer's service line to limit the amount of water that will pass through the meter in a 24 hour period. The cost of this shall be the actual cost to do the work and shall be paid by the customer.
- c. Subsequent Violations** – The District may terminate service for up to 7 days and charge for the service call to restore service. These provisions apply to all customers of the District.

## **7. EXEMPTIONS OR WAIVERS**

The Drought Emergency Management Committee 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 or sanitation for the public or the person requesting such variance and if one or more of the following conditions are met:

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

Persons requesting an exemption from the provisions of this plan shall file a petition for variance with the Drought Emergency Management Committee within 5 days after the plan or a particular drought response stage has been invoked or after a condition justifying the variance first occurs. All petitions for variances shall be reviewed by the committee and shall include the following:

- Name and address of the petitioner(s).
- Purpose of water use.
- Specific provision(s) of the plan from which the petitioner is requesting relief.
- 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.
- Description of the relief requested.
- Period of time for which the variance is sought.
- 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.

- Other pertinent information, as requested by the committee.

Variations granted by the committee shall be subject to the following conditions, unless specifically waived or modified by the committee or board of directors:

- Variations granted shall include a timetable for compliance.
- Variations granted shall expire when the water allocation is no longer in effect, unless the petitioner has failed to meet specified requirements. No variance allowed for a condition requiring water allocation will continue beyond the termination of water allocation under Section F. Any variance for a subsequent water allocation must be petitioned again. The fact that a variance has been granted in response to a petition will have no relevance to the committee's decision on any subsequent petition.

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

## **8. *IMPLEMENTATION***

The board establishes a Drought Emergency Management Committee by resolution, the chairperson of which will be the responsible representative to make drought and emergency water management actions. This committee will review the procedures in this plan annually or more frequently. Modifications may be required to accommodate system growth, changes in water use demand, available water supply and/or other circumstances.

## **APPENDIX A**

# **PUBLIC INFORMATION SUGGESTIONS**

This section has been reproduced, in part, from  
Texas Water Development Board Bulletin, titled  
“Water...Half-A-Hundred Ways to Save It”.

## POSSIBLE SAVINGS WITH WATER CONSERVATION

For approximately \$10.00 to \$15.00 the average homeowner can install two low flow showerheads, place dams or bottles in the toilet tanks, put low-flow aerators on the faucets, and repair dripping faucets and leaking toilets. This could save from 10,000 to 25,000 gallons/year for a family of four, and would pay for itself, in less than a year. Even more water could be saved if good outdoor water conservation is practiced for lawn and gardens,

## CONSERVATION TIPS

### A. In the Bathroom:

1. Take a shower instead of filling the tub and taking a bath. Showers usually use less water than tub baths.
2. Install a low-flow showerhead, which restricts the quantity of flow at 60 psi to no more than 3.0 gallons per minute.
3. Take short showers and install a cutoff valve or turn the water off while soaping and back on again only to rinse.
4. 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 only be added when hands are especially dirty.
5. Reduce the level of water being used in a bathtub by one or two inches if a shower is not available.
6. Turn water off when brushing teeth until it is time to rinse.
7. 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. A cutoff valve may also be installed on the faucet.
8. Shampoo hair in the shower. Shampooing in the shower takes only a little more water than is used to shampoo hair during a bath and much less than shampooing and bathing separately.
9. Hold hot water in the basin when shaving instead of letting the faucet continue

to run.

10. Test toilets for leaks. To test for a leak, 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 appears in the bowl within a few minutes. If it does, the fixture needs adjustment or repair.
11. Use a toilet tank displacement device. A one-gallon plastic milk bottle can be filled with stones or with water, recapped, and placed in the toilet tank. This will reduce the amount of water in the tank, but still provide enough for flushing. (Bricks, which some people use for this purpose, are not recommended, since they crumble eventually and could damage the working mechanism, necessitating a call to the plumber). Displacement devices should never be used with low-volume flush toilets.
12. Install faucet aerators to reduce water consumption.
13. Never use toilet to dispose of cleaning tissues, cigarette butts, or other trash. This can waste a great deal of water and also place an unnecessary load on the sewage treatment plant or septic tank.
14. Install a new low-volume flush toilet that uses 3.5 gallons or less per flush when building a new home or remodeling a bathroom.

B. In the Kitchen

1. Use 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.
2. 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.
3. Use the sink disposal sparingly, and never use it for just a few scraps.
4. Keep a container of drinking water in the refrigerator. Running water from the tap until it is cool is wasteful. Better still; keeping cold water in a plastic jug on a kitchen counter to avoid opening the refrigerator door frequently can save both water and energy.
5. Use a small pan of cold water when cleaning vegetables rather than letting the faucet run.

6. Use only a little water in the pot and put a lid on it for cooking most food. Not only does this method save water, but food is more nutritious since vitamins and mineral are not poured down the drain with the extra cooking water.
7. Use a pan of water for rinsing when hand washing dishes rather than running the faucet.
8. Always keep water conservation in mind, and think of other ways to save in the kitchen. Small kitchen savings from not making too much coffee or letting ice cubes melt in a sink can add up in a year's time.

C. In the Laundry

1. Wash only a full load when using an automatic washing machine (32 to 59 gallons are required per load).
2. Use the lowest water level setting on the washing machine for light loads whenever possible.
3. 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 better for clothing made of today's synthetic fabrics.)

D. For Appliances and Plumbing

1. Check water requirement of various models and brands when considering purchasing any new appliance that uses water. Some use less water than others
2. Check all water line connections and faucets for leaks. If the cost of water is \$1.00 per 1,000 gallons, one could be paying a large bill for water that simply goes down the drain because of leakage. A slow drip can waste as much as 170 gallons of water EACH DAY, or 5,000 gallons per month, and can add as much as \$5.00 per month to the water bill.
3. 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 amount saved in plumbing and water bills.
4. Check for water leakage that the customer may be entirely unaware of, such as a leak between the water meter and the house. To check, all indoor and outdoor faucets should be turned off, and the water meter should be checked. If it continues to run or turn, a leak probably exists and needs to be located.
5. Insulate all hot water pipes to avoid the delays (and wasted water) experienced while waiting for the water to "run hot".

6. 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.
7. Use a moisture meter to determine when houseplants need water. More plants die from over-watering than from being on the dry side.

E. Out-of-Door Use:

1. 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.
2. Use a sprinkler that produces large drops of water rather than a fine mist, to avoid evaporation.
3. Turn soaker hoses so the holes are on the bottom to avoid evaporation.
4. Water slowly for better absorption, and never water in high winds.
5. Forget about watering the streets, walks or driveways. They will never grow a thing.
6. Condition the soil with compost before planting grass or flowerbeds so that water will soak in, rather than run off.
7. Fertilize lawns at least twice a year for root stimulation. Grass with a good root system makes better use of less water.
8. Learn to know when grass needs watering. If it has turned a dull gray-green or if footprints remain visible, it is time to water.
9. Do not water too frequently. Too much water can overload the soil so that air cannot get to roots and can encourage plant diseases.
10. Do not over-water. Soil can absorb so much moisture and the rest simply runs off. A timer will help, and either a kitchen timer or an alarm clock will do. An inch and one-half of water applied once a week will keep most Texas grasses alive and healthy.
11. Operate automatic sprinkler systems only when the demand on the town's water supply is lowest. Set the system to operate between 4:00 a.m. and 6:00 a.m.
12. Do not scalp lawns when mowing during hot weather. Taller grass holds moisture better. Rather, grass should be cut fairly often, so that only  $\frac{1}{2}$  to  $\frac{3}{4}$  inch is trimmed off. A better-looking lawn will result.

13. Use a watering can or hand water with the hose in small areas of the lawn that need more frequent watering (those near walks or driveways, or in especially hot, sunny spots).
14. Learn what types of grass, shrubbery, and 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 plants that are adapted to arid or semi-arid climates should be chosen.
15. Consider decorating areas of the lawn with rocks, gravel, wood chips, or other materials now available that require no water at all.
16. Do not “sweep” walks and driveways with the hose. Use a broom or rake instead.
17. Use a bucket of soapy water and use the hose only for rinsing when washing the car.

## **APPENDIX B**

# **SANTO SPECIAL UTILITY DISTRICT WATER RATE STRUCTURE**

**MONTHLY WATER RATES**

The table below summarizes the monthly water rates charged by the Santo Special Utility District. All rates are subject to revision by the Santo Special Utility District board of Directors.

Minimum charge:

<u>Tap Size</u>	<u>Charge</u>
3/4" X 5/8"	\$ 22.50
3/4"	\$ 33.75
1"	\$ 56.25 1
1/2"	\$ 112.50
2"	\$ 188.00

All water use each month shall be charged and billed at the following rates:

<i>Volume charge per 1,000 gallons</i>	<i>Residential</i>	<i>Commercial</i>	
0 - 10,000 gallons	\$8.25	\$8.25	
All over 10,000 gallons	\$18.00	\$18.00	

## Water Conservation and Drought Contingency Plan Summary

STAGE	Lake Level (MSL)	% of Capacity	% Reduction	Comments
Stage 0	867' – 860'	100%-50%	10%	Only allow 2 days per week for outside watering. Time of day restrictions apply.
Stage I	860' – 854'	50%-25%	20% total	Only allow 1 day per week for outside watering.
Stage II	854' – 849'	25% - 12.5%	25% total	No outside water use allowed.
Stage III	849' and below	12.5% and below	30% total	No outside water use allowed. Bring RO units online.

### Stage 0

- A. Achieve 10% reduction in total use.
- B. Unattended landscape watering will be permitted two (2) days per week. Other outside use is permitted.
  - Even Account Numbers on Tuesdays & Saturdays
  - Odd Account Numbers on Thursdays & Sundays
- C. No landscape watering on any day between the hours of 10 am and 6 pm.
- D. Hand watering of landscaping, shrubs, gardens, and grass is permissible on any day, subject to time of day restrictions.

### Stage I

- A. Achieve additional 10% reduction in total use (20%).
- B. Unattended landscape and maintaining swimming pool levels will be permitted one (1) day per week. Other outside use is permitted.
  - Even Account Numbers on Tuesdays & Saturdays
  - Odd Account Numbers on Thursdays & Sundays
- C. Draining and refilling of swimming pools will not be allowed.
- D. No landscape watering on any day between the hours of 10 am and 6 pm.
- E. Hand watering of landscaping, shrubs, gardens, and grass is permissible on any day, subject to time of day restrictions.

### Stage II

- A. Achieve 25% reduction in total use.
- B. No outside water use permitted.
- C. The only outside watering exception is for animals.
- D. Construction projects shall use only reuse water.
- E. Commercial uses not listed will be controlled to the extent directed by the Santo SUD Manager.

### Stage III

- A. Achieve 30% reduction in total use.
- B. All conditions of Stage II apply.

