

Llano County Municipal Utility District #1

Drought Contingency Plan

**Approved by the Board of Directors
March 22, 2011**

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STANDARD DROUGHT CONTINGENCY PLAN FOR MUNICIPAL WATER USE

1.0 Declaration of Policy, Purpose, and Intent

The Lower Colorado River Authority (LCRA) provides contracts to customers for water supply. In cases of extreme drought, periods of abnormally high usage, system contamination, or extended reduction in ability to supply water due to equipment failure, LCRA may require water customers to institute temporary restrictions to limit non-essential water usage. This Drought Contingency Plan (Plan) is designed to protect the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation and fire protection during the periods or other water supply emergencies.

Water uses regulated or prohibited under this Plan are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply conditions are deemed to constitute a waste of water.

2.0 Authorization

The General Manager or official of **Llano County MUD #1** is hereby authorized and directed to implement the applicable provisions of this plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The General Manager or official of **Llano County MUD #1** shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan. This authorization was designated as part of the plan's approval by the **Llano County MUD #1** Governing Board (*See Appendix D*).

3.0 Public Education

The General Manager or official of **Llano County MUD #1** will periodically provide its employees, members, and the general public with information about this Plan, including the importance of the Plan, information about the conditions under which each stage of the Plan is to be initiated, processes used to reduce water use, and impending or current drought conditions.

4.0 Coordination with Regional Planning Groups

Llano County MUD #1 has provided a copy of this Plan to the Lower Colorado Regional Planning Group (Region K).

5.0 Notice Requirements

Llano County MUD #1 shall notify the executive director of the Texas Commission on Environmental Quality and LCRA General Manager in writing within five (5) business days of the implementation of any mandatory provisions of the Drought Contingency Plan.

6.0 Permanent Water Use Restrictions

The following restrictions apply to all of **Llano County MUD #1** water utility system(s) on a year-round basis, regardless of water supply or water treatment plant production conditions. According to the restrictions, a water user must not:

- 1) Fail to repair a controllable leak, including a broken sprinkler head, a leaking valve, leaking or broken pipes, or a leaking faucet;
- 2) Operate an irrigation system with:
 - a broken head;
 - a head that is out of adjustment and the arc of the spray head is over a street or parking area; or
 - a head that is fogging or misting because of excessive water pressure.
- 3) During irrigation, allow water:
 - to run off a property and form a stream of water in a street for a distance of 50 feet or greater; or
 - to pool in a street or parking lot to a depth greater than one-quarter of an inch.

7.0 Initiation and Termination of Response Stages

The **Llano County MUD #1** General Manager or official shall monitor water supply and demand conditions on a regular basis and shall determine when conditions warrant initiation and termination of each stage of this Plan in accordance with LCRA's Water Management Plan. Water supply conditions will be determined by the source of supply, system capacity, and weather conditions. Water demand will be measured by the peak daily demands on the system.

Public notification of the initiation or termination of drought response stages shall be by a variety of ways, examples include: bill inserts, e-mail and automated telephone calls, signs posted at entry points to the service area or a combination of these methods.

The following triggering criteria shall apply to **Llano County MUD #1's** water utility system and customer service area:

7.1 Triggering Criteria for Initiation and Termination of Drought Response Stages

(1) STAGE 1 - Mild Water Shortage Conditions (Voluntary Measures)

A. **Requirements for initiation** - Customers shall be requested to adhere to the Stage 1 Drought Response Measures when one or a combination of such triggering criteria occurs:

1. Treatment Capacity:

- For surface water systems, when total daily water demand equals or exceeds 80 percent of the total operating system treatment capacity for three consecutive days, or 85 percent on a single day.

2. Water Supply:

- Combined storage of Lakes Travis and Buchanan reaches 1.4 million acre-feet in accordance with the LCRA Drought Contingency Plan for Firm Water Customers (DCP).

B. **Requirements for termination** - Stage 1 of the plan may be rescinded when:

1. Treatment Capacity:

- The water treatment plant capacity condition listed above as a triggering event for Stage 1 has ceased to exist for five consecutive days.

2. Water Supply:

- LCRA announces that voluntary restrictions by its firm raw water customers are no longer needed in accordance with the LCRA DCP.

(2) STAGE 2 - Moderate Water Shortage Conditions (Mandatory Measures)

A. **Requirements for initiation** - Customers shall be required to adhere to the Stage 2 Drought Response Measures when one or a combination of such triggering criteria occurs:

1. Treatment Capacity:

- For surface water systems, when total daily water demand equals or exceeds 93 percent of the total operating system treatment capacity for three consecutive days, or 95 percent on a single day.

2. Water Supply:

- Combined storage of Lakes Travis and Buchanan reaches 900,000 acre-feet in accordance with the LCRA DCP.

B. **Requirements for termination** - Stage 2 of the Plan may be rescinded when:

1. Treatment Capacity:

- The water treatment plant capacity condition listed above as a triggering event for Stage 2 has ceased to exist for five consecutive days.

2. Water Supply:

- LCRA announces that voluntary compliance to implement a utility's mandatory water restrictions are no longer needed in accordance with the LCRA DCP.

Upon termination of Stage 2, Stage 1 becomes operative.

(3) STAGE 3 - Severe Water Shortage Conditions (Mandatory Measures)

A. **Requirements for initiation** - Customers shall be required to adhere to the Stage 3 Drought Response Measures when one or a combination of such triggering criteria occurs:

1. Treatment Capacity:

- For surface water systems, when total daily water demand equals or exceeds 95 percent of the total operating system treatment capacity for three consecutive days, or 97 percent on a single day.

2. Water Supply:

- Combined storage of Lakes Travis and Buchanan reaches 600,000 acre-feet, in accordance with the LCRA DCP, or
- The LCRA Board declares a drought worse than the Drought of Record or other water supply emergency and orders the mandatory curtailment of firm water supplies.

B. **Requirements for termination** - Stage 3 of the Plan may be rescinded when:

1. Treatment Capacity:

- The water treatment plant capacity condition listed above as a triggering event for Stage 3 has ceased to exist for five consecutive days.

2. Water Supply:

- LCRA announces that mandatory water restrictions for firm water customers are no longer required in accordance with the LCRA DCP.

Upon termination of Stage 3, Stage 2 becomes operative.

(4) STAGE 4- Emergency Water Conditions

A. **Requirements for initiation** - Customers shall be required to adhere to the Stage 4 Drought Response Measures when one or a combination of such triggering criteria occurs:

1. Treatment Capacity:

- Major water line breaks, loss of distribution pressure, or pump system failures that cause substantial loss in its ability to provide water service.

2. Water Supply:

- Natural or man-made contamination of the water supply source; or
- Any other emergency water supply or demand conditions that the LCRA general

manager or the LCRA Board determines that either constitutes a water supply emergency or is associated with the LCRA Board declaration of a drought worse than the drought of record.

B. Requirements for termination - Stage 4 of the Plan may be rescinded when:

1. Treatment Capacity:
 - The water treatment plant capacity condition listed above as a triggering event for Stage 4 has ceased to exist for five consecutive days; or
2. Water Supply:
 - LCRA announces that mandatory water restrictions for firm water customers are no longer required in accordance with the LCRA DCP.

Upon termination of Stage 4, Stage 3 becomes operative.

8.0 Drought Response Measures

8.1 Targets for Water-Use Reductions

(1) STAGE 1 - Mild Water Shortage Conditions (Voluntary Measures)

System Capacity Reduction Target: Limit daily water demand to no more than 80% capacity for three days or 85% for one day.

Water Supply Reduction Target: Achieve a 5% reduction in water use.

(2) STAGE 2 - Moderate Water Shortage Conditions (Mandatory Measures)

System Capacity Reduction Target: Limit daily water demand to no more than 80% capacity for three days or 85% for one day.

Water Supply Reduction Target: Achieve a 10-20% reduction in water use.

(3) STAGE 3 - Severe Water Shortage Conditions (Mandatory Measures)

System Capacity Reduction Target: Limit daily water demand to no more than 80% capacity for three days or 85% for one day.

Water Supply Reduction Target: Achieve a minimum 20% reduction in water use.

(4) STAGE 4 - Severe Water Shortage Conditions (Mandatory Measures)

System Capacity Reduction Target: Limit daily water demand to no more than 80% capacity for three days or 85% for one day.

Water Supply Reduction Target: As determined by the LCRA Board.

8.2 Retail Customers Measures

(1) STAGE 1 - Mild Water Shortage Conditions (Voluntary Measures)

A. Supply Management Measures: **Llano County MUD #1** will review system operations and identify ways to improve system efficiency and accountability.

B. Demand Management Measures:

1. Ask customers to voluntarily comply with the water-use restrictions outlined in Stage 2 of this plan, including watering landscapes no more than twice per week; and
2. Actively promote drought related issues and the need to conserve.

(2) STAGE 2 - Moderate Water Shortage Conditions (Mandatory Measures)

A. Supply Management Measures:

1. Apply all water-use restrictions prescribed for Stage 2 of the plan for **Llano County MUD #1's** utility owned facilities and properties;
2. Discontinue water main and line flushing unless necessary for public health reasons; and
3. Keep customers informed about issues regarding current and projected water supply and demand conditions.

B. Demand Management Measures: Under threat of penalty, the following water-use restrictions shall apply to all retail water customers:

1. Irrigation of Landscaped Areas:

- a. **If the combined water storage of lakes Buchanan and Travis are less than 900,000 AF but greater than 750,000 AF** - Irrigation of landscaped areas with hose-end sprinklers or in-ground irrigation systems shall be limited to a no more than a TWICE weekly watering schedule determined by **Llano County MUD #1** and based on the nature of the current drought or water emergency. Irrigation of commercial landscapes and recreational areas may apply for a variance but must still develop a schedule where no part of the landscape is watered more than twice per week. *See Appendix A - Llano County MUD #1 Water System - Recommended Watering Schedule.*
- b. **If the combined water storage of lakes Buchanan and Travis are less than or equal to 750,000 AF** - Irrigation of landscaped areas with hose-end sprinklers or in-ground irrigation systems shall be limited to a no more than a ONCE weekly watering schedule as determined by **Llano County MUD #1** and based on the nature of the current drought or water emergency. Irrigation of commercial landscapes and recreational areas may apply for a variance but must still develop

a schedule where no part of the landscape is watered more than once per week.

- c. Outdoor watering hours will be limited to between midnight and 10 a.m. and between 7 p.m. and midnight on designated days. This prohibition does not apply to irrigation of landscaped areas if it is by means of:
 - i. a hand-held hose; or
 - ii. a faucet-filled bucket or watering can of five gallons or less.
- d. New landscapes may be installed and re-vegetation seeding performed under these specific criteria:
 - i. A completed variance form for new landscapes has been submitted to the **Llano County MUD #1** and has been approved prior to the installation of the landscape, or re-vegetation seed application
 - ii. Irrigation of the new landscape follows the schedule identified in the new landscape variance. The schedule will be developed to minimize water waste.
 - iii. Areas being re-vegetated for soil stabilization must also comply with the (i) and (ii) specific criteria above. Options for re-vegetation may be available in times of low water supply. Specific information regarding options is available in the LCRA Highland Lakes Watershed Ordinance Technical Manual.
 - iv. Variances for new landscapes may be issued for a period of no more than 30 days from the day of issuance. A variance is not an exemption from compliance with the permanent water use restrictions under Section 9.2 of this plan. Variances will not be granted for seasonal “color bed” or temporary grass installation (overseeding).

2. Vehicle Washing:

Use of water to wash any motor vehicle, such as a motorbike, boat, trailer, or airplane is prohibited except on designated watering days between the hours of midnight and 10 a.m. and between 7 p.m. and midnight. Such activity, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle. A vehicle may be washed any time at a commercial car wash facility or commercial service station. Further, this activity is exempt from these regulations if the health, safety, and welfare of the public are served by washing the vehicle, such as a truck used to collect garbage or used to transport food and perishables.

3. Pools:

- a. Filling of all new and existing swimming pools, hot tubs, wading pools, is prohibited. Replenishing to maintenance level is permitted. Draining is permitted only onto pervious surfaces or onto a surface where water will be transmitted directly to a pervious surface, and only if:
 - i. Draining excess water from pool due to rain in order to lower water to maintenance level;
 - ii. Repairing, maintaining or replacing pool components that have become hazardous; or
 - iii. Repair of a pool leak.

4. Outside Water Features:

Operation of outside water features, such as, but not limited to, fountains, splash pad type fountains or outdoor misting systems, is prohibited, except where such features are used to sustain aquatic life or maintain water quality. (This provision includes fountains associated with aesthetic ponds and swimming pools).

5. Ponds:

Ponds used for aesthetic, amenity, and/or storm water purposes may maintain water levels only necessary to preserve the integrity of the liner and operating system. **Llano County MUD #1** may request specific design documentation regarding a pond and the intended purpose.

6. Events:

Events involving the use of water such as: car washes, festivals, parties, water slides, and other activities involving the use of water are permitted, if the water being used drains to a re-circulating device, or onto a pervious surface to prevent water waste.

7. Fire Hydrants:

Use of water from fire hydrants shall be limited to firefighting and activities necessary to maintain public health, safety, and welfare.

8. Recreational areas (includes parks and athletic fields):

The areas can only be used for designated or scheduled events or activities. Unnecessary foot traffic must be discouraged. Watering must follow a no more than twice per week schedule. A variance can be obtained if watering cannot be completed on the designated two day schedule.

9. Water Waste:

The following non-essential uses of water are prohibited at all times during periods in which restrictions have gone into effect:

- a. Washing sidewalks, walkways, driveways, parking lots, street, tennis courts, and other impervious surfaces is prohibited except for immediate health and safety;
- b. Washing buildings, houses or structures with a pressure washer or garden hose is prohibited for aesthetic purposes but allowable for surface preparation of maintenance work to be performed;
- c. Flushing gutters or flooding gutters is prohibited except for immediate health and safety; and
- d. Controlling dust is prohibited, unless there is a demonstrated need to do so for reasons of public health and safety, or as part of an approved construction plan.

(3) **STAGE 3 - Severe Water Shortage Conditions (Mandatory Measures)**

A.

Supply Management Measures: In addition to measures implemented in the preceding stages

of the plan, affected **Llano County MUD #1** water utility systems will explore additional emergency water supply options.

B. Demand Management Measures: Under threat of penalty, all retail customers are required to further reduce non-essential water uses as follows. All requirements of Stage 2 shall remain in effect during Stage 3, with the following modifications and additions.

1. Irrigation of Landscaped Areas:

a. Irrigation of landscaped areas is prohibited, except with hand-held hoses, hand-held buckets, or drip irrigation. The use of hose-end sprinklers or in-ground irrigation systems are prohibited at all times during Stage 3.

b. No new landscapes may be installed.

2. Vehicle Washing:

Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane, or other vehicle is prohibited. A vehicle can be washed at any time at a commercial car wash facility or commercial service station that recycles its water. Further, this activity is exempt from these regulations if the health, safety, and welfare of the public are served by washing the vehicle, such as a truck used to collect garbage or used to transport food and perishables.

3. Pools:

Installation of swimming pools is prohibited. The filling or replenishing of water to swimming pools, hot tubs, wading pools, and other types of pools is prohibited. Public/community swimming pools may be exempt from this prohibition to maintain safe levels of water quality for human contact.

4. Events:

Events involving the use of water such as: car washes; festivals; parties; water slides; and other activities involving the use of water are prohibited.

5. Recreational areas (includes parks and athletic fields):

The areas can only be used for designated or scheduled events or activities. Unnecessary foot traffic must be discouraged. Watering is prohibited except with a hand-held hose.

(4) STAGE 4 - Emergency Water Conditions

Under threat of penalty for violation, all retail customers are required to reduce nonessential water uses during an emergency. All requirements of Stages 1 through 3 are also in effect during stage 4, with the following modifications and additions:

A. Irrigation of landscaped areas is prohibited.

B. Use of water from fire hydrants shall be limited to firefighting and activities necessary to maintain public health, safety, and welfare only.

- C. No applications for new, additional, expanded, or larger water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be allowed or approved.

Upon declaration of Stage 4 - Emergency Water Conditions, water use restrictions outlined in Stage 4 Emergency Response Measures shall immediately apply.

In the event that Stage 4 is declared, **Llano County MUD #1** has identified and will initiate the following emergency interconnects and/or alternative water supply arrangements:

Emergency interconnect with the City of Horseshoe Bay.

9.0 Enforcement

9.1 Enforcement Provisions

The following enforcement provisions shall apply to all **Llano County MUD #1** water customers:

[X] *Appendix B – Enforcement Provisions for Municipalities*

9.2 Variances

- (1) **Llano County MUD #1** staff may grant variances:
- A. From specific applications of the outdoor water schedule, providing that the variances do not increase the time allowed for watering but rather alter the schedule for watering; and
 - B. Allowing the use of alternative water sources (i.e., ground water, reclaimed wastewater) that do not increase demand on potable water sources for outdoor use. Variance requests may be submitted to staff and need not meet the requirements of subsection below.
- (2) The general manager, or his designee, may grant in writing temporary variances for existing water uses otherwise prohibited under this plan if it is determined that failure to do so would cause an emergency adversely affecting the public health, sanitation, or fire protection, and if one or more of the following conditions are met:
- A. Compliance with this plan cannot be accomplished during the duration of the time the plan is in effect; or
 - B. Alternative methods can be implemented that will achieve the same level of reduction in water use.
- (3) Persons requesting a variance from the provisions of this plan shall file a petition for variance with the **Llano County MUD #1's** water utility system any time the plan or a particular drought response stage is in effect. The general manager or his designee will review petitions for variances. The petitions shall include the following:
- Name and address of the petitioner
 - Purpose of water use

- Specific provision 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 the petitioner or others will sustain 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
- (4) Variances granted by **Llano County MUD #1's** water utility system shall be subject to the following conditions, unless waived or modified by the general manager, or his designee:
- A. Variances granted shall include a timetable for compliance.
 - B. Variances granted shall expire when the plan, or its requirements, is no longer in effect, unless the petitioner has failed to meet specified requirements.
- (5) No variance shall be retroactive or otherwise excuse any violation occurring before the variance was issued.

9.3 Plan Updates

The plan will be reviewed and updated as needed to meet both TCEQ and LCRA drought contingency plan rules.

10 Appendices

Appendix A – Watering Schedule, No More Than Twice Per Week

Llano County MUD #1 Water System

Irrigate outdoors using an in-ground irrigation system or hose-end sprinkler no more than **TWICE per week** and only during scheduled days and times as indicated below:

Residential

Odd number addresses: Wednesdays and Saturdays

Even number addresses: Thursdays and Sundays

Commercial (including large landscapes such as HOA common areas)

Tuesdays and Fridays

Watering Hours:

Midnight to 10 a.m. and 7 p.m. to midnight

Appendix B – Enforcement Provisions for Municipalities

Enforcement for Retail Customers

The following enforcement provisions shall apply to all **Llano County MUD #1** retail water customers:

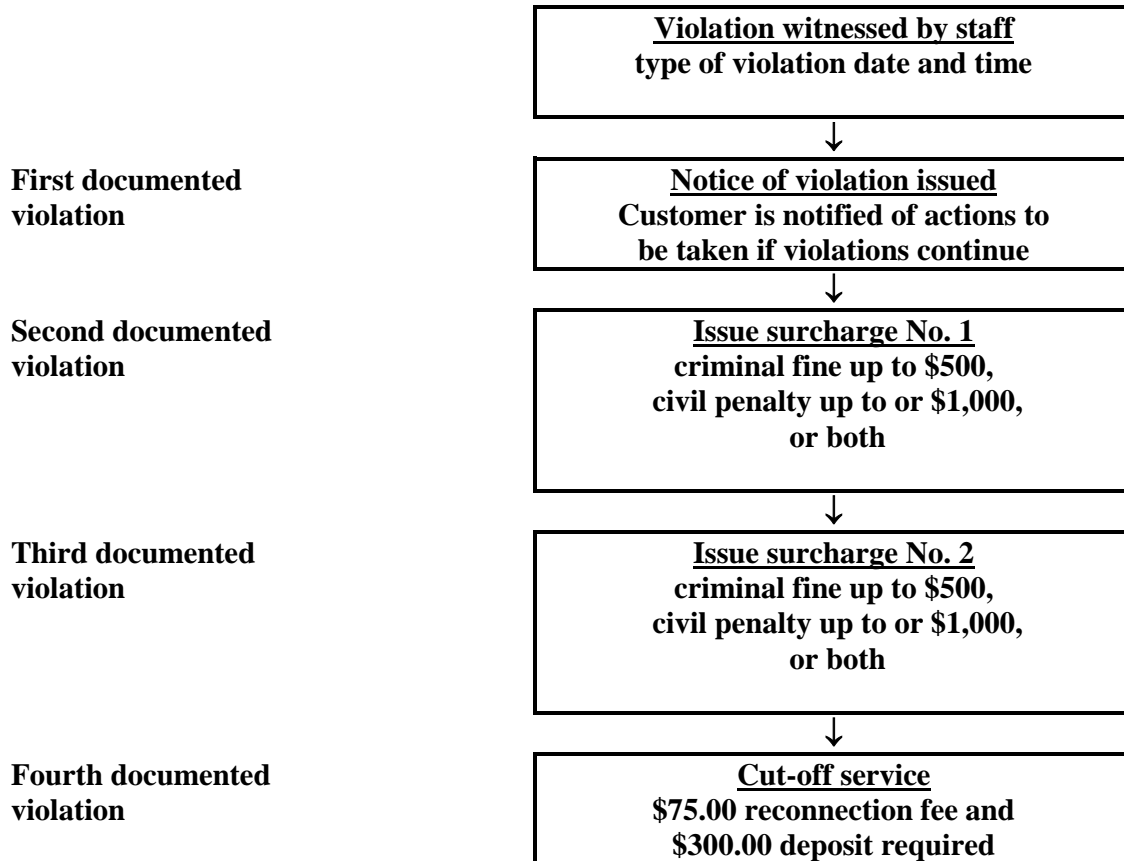
- (1) No person shall knowingly or intentionally use or allow the use of water from **Llano County MUD #1's** water utility system for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time.
- (2) Any person who violates this plan shall be subject to the following fines, penalties and/or conditions of service:
 - A. Following the first documented violation, the violator shall be given a notice specifying the type of violation and the date and time it was observed. Fines and restrictions on service that may result from additional violations;
 - B. Following the second documented violation, the violator shall:

be subject to a civil penalty of **\$100.00**.
 - C. Following the third documented violation, the violator shall:

be subject to a civil penalty of **\$300.00**.
 - D. Following the fourth documented violation, **Llano County MUD #1** shall, upon due notice to the customer, 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, hereby established at **\$75.00**, and any outstanding charges including late payment fees or penalties. In addition, suitable assurance in the amount of a deposit of **\$300.00** must be given to **Llano County MUD #1** so that the same action shall not be repeated while the plan is in effect. **Llano County MUD #1** may apply the deposit to any surcharges or penalties subsequently assessed under this plan against a customer. The deposit, if any, shall be returned to the customer at the time of the customer's voluntary disconnection from the utility system.
- (3) Each day that one or more of the provisions in this plan is violated shall constitute a separate violation. Any person, including one classified as a water customer of **Llano County MUD #1**, in apparent control of the property where a violation occurs or originates, shall be presumed to be the violator. Any such person, however, shall have the right to show that he did not commit the violation. See enforcement process diagram in *Appendix C - Drought Response Retail Enforcement Process for Municipalities*.
- (4) The designated manager or official of **Llano County MUD #1** shall have the power to enforce the provisions of this Plan.
- (5) The municipal court shall have the power to issue to the designated manager or official of **Llano County MUD #1** administrative search warrants, or other process allowed by law, where necessary to aid in enforcing this Plan.

- (6) Judicial enforcement of fines and penalties issued pursuant to this Plan may be sought through a municipal court, district court or small claims court having jurisdiction over the matter.
- (7) Compliance with this Plan also may be sought through injunctive relief in state district court.

Appendix C – Drought Response Retail Enforcement Process for Municipalities



Appendix D – Authorization to Implement and Approve Drought Contingency Plans

STATE OF TEXAS :

COUNTY OF LLANO :

I, William M. Stevens Jr., hereby certify that I am the President of Board of Directors of the Llano County MUD #1, a Municipal Utility District, duly organized and existing under and by virtue of the public laws of the State of Texas.

I further certify that the Board of Directors of Llano County MUD #1, on March 22, 2011 in a meeting posted properly in accordance with the Texas Open Meetings Act and with a quorum present and voting, unanimously authorized the General Manager and her staff to prepare and submit water conservation and drought contingency plans to the Lower Colorado River Authority, Lower Colorado Regional Planning Group and the Texas Commission on Environmental Quality that are consistent with director provided by the Board, as described in Llano County MUD #1 Board Agenda Item 6, a true and correct copy of which is attached hereto.

TO CERTIFY WHICH, witness my hand and official seal this the 22nd day of March, 2011.

William M. Stevens Jr.
William M. Stevens Jr.
President
Llano County MUD #1

ATTESTED TO:

Gary A. Simons
Gary A. Simons
Secretary,
Board of Directors