AUSTIN CITY COUNCIL

AGENDA

Recommendation for Council Action

Austin City Council	**Item ID**	16057	**Agenda Number**	<ITEM_OUTLINE>
Meeting Date:	6/28/2012	**Department:**	Austin Water Utility	

Subject

Approve a resolution repealing Resolution No. 20090423-002 and adopting the new Drought Contingency Plan for Retail & Wholesale Public Water Suppliers.

Amount and Source of Funding

There is no unanticipated fiscal impact.

Fiscal Note

A fiscal note is not require.

Purchasing Language:	
Prior Council Action:	April 23, 2009- Adopted 2009 Drought Contingency Plan (Resolution No. 20090423-002); April 28, 2005- Adopted 2005 Drought Contingency Plan (Resolution No. 20050428-011); August 26, 1999- Adopted 1999 Drought Contingency Plan (Resolution No. 990826-66)
For More Information:	Drema Gross, 974-2787; Denise Avery, 972-0104
Boards and Commission Action:	To be reviewed by the Water and Wastewater Commission on June 13, 2012, and the Resource Management Commission on June 19, 2012.
MBE / WBE:	
Related Items:	Agenda items 16056 and 15898

Additional Backup Information

The Drought Contingency Plan (DCP) specifies the triggers used to initiate implementation of specific water use reduction measures contained in the Water Conservation Code (§ 6-4 Austin City Code). These triggers are demand based (how much water is consumed), supply based (how much water is available) and emergency based (man-made or natural disaster). This revised DCP, which updates the previously adopted 2009 DCP, fulfills TCEQ requirements under 30 TAC § 288.20 and § 288.22, and addresses new requirements set forth by the LCRA under its recently revised Drought Contingency Plan. LCRA requires its raw water customers to file a Drought Contingency Plan consistent with LCRA's triggers and water use reduction targets. This revision also incorporates revisions to the Water Conservation Code (6-4 of City Code), which addresses the specific water conservation measures for each conservation stage.

Changes from the 2009 Drought Contingency Plan

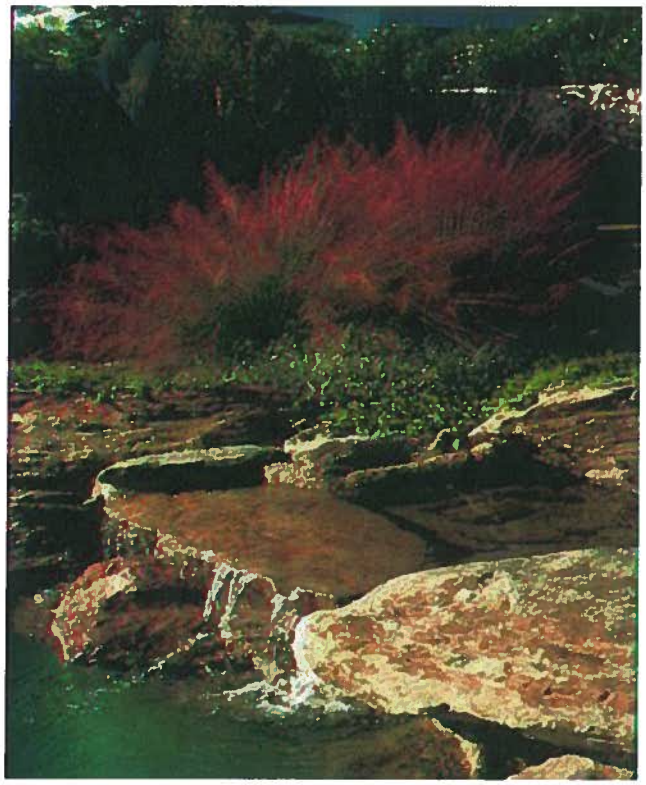
- Updates the thresholds for Stage 1, Stage 2, and Stage 3 supply–based triggers based on lake volumes to align them with the corresponding triggers in the LCRA's Revised 2009 Water Utilities Conservation and Drought Contingency Plan. LCRA's revised DCP establishes a supply trigger at 1.4 million acre feet (MAF) in the combined lakes. Additional triggers include combined lake storage less than 900,000 acre feet, and combined lake storage of 600,000 acre feet or a drought worse than the drought of record.

- Updates the Stage 1, Stage 2, and Stage 3 drought responses to align conservation goals with the reduction targets required in LCRA's Revised 2009 Water Utilities Conservation and Drought Contingency Plan. While the City's Water Conservation Code (§ 6-4 Austin City Code), including the implementation of conservation stages, currently allows the City to attain the reduction rates required by the LCRA revised plan, this updated DCP specifically identifies the triggers and target reductions that each drought stage will achieve. The identified reduction targets include a 5% reduction during Stage 1, a 10%-20% reduction during Stage 2, and a minimum 20% reduction during Stage 3.

- Clarifies the applicability of the DCP to Austin Water's wholesale customers.

- Updates projected water pumpage to reflect the Council goal of reaching 140 gallons per capita per day by 2020.

- Replaces the Water Conservation Code (§ 6-4 Austin City Code) in Appendix A with an amended version.



City Of Austin

Drought Contingency Plan

June 2012

Developed to Meet Requirements
Outlined in 30 TAC § 288.20 and § 288.22

Austin Water Utility
Water Conservation Division
City of Austin, Texas
PWS # 2270001

TABLE OF CONTENTS

DROUGHT CONTINGENCY PLAN
City of Austin, Texas
June 2012

Section I: Declaration of Policy, Purpose and Intent

The City of Austin (the City) adopted this Drought Contingency Plan (the Plan) to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage during drought or other emergency water supply conditions. This Plan is designed to meet Section 11.1272 of the Texas Water Code and Chapter 288 of Title 30 of the Texas Administrative Code. These regulations require all Texas wholesale public water suppliers and all retail public water suppliers providing water service to 3,300 or more connections to update Drought Contingency Plans by May 1, 2009 and every five years thereafter. If revisions to the Plan are needed before the scheduled five-year update, they must be submitted to TCEQ within 90 days of adoption. Additionally, as part of its water agreements with the Lower Colorado River Authority (LCRA), the City is required to have a Drought Contingency Plan that reflects consideration of the targets and goals set forth in the LCRA Drought Contingency Plan.

The Plan specifies how the City will respond to and manage the water system during demand and infrastructure constraints as well as during drought, including a repetition of the critical drought of record. The City will coordinate with LCRA and the policies set forth in its Water Management Plan, if and when a drought or other shortage of water supply should occur.

Water management actions are codified in the City of Austin's Municipal Code, Title VI Environmental Control and Conservation, Chapter 6-4 Water Conservation, Article II Water Use Management, last revised in June 2012. This Drought Contingency Plan reflects revisions to that code and clarifies the applicability of the Plan to the City of Austin's wholesale water customers. The amended Water Conservation Code is included in Appendix A.

Section II: Background

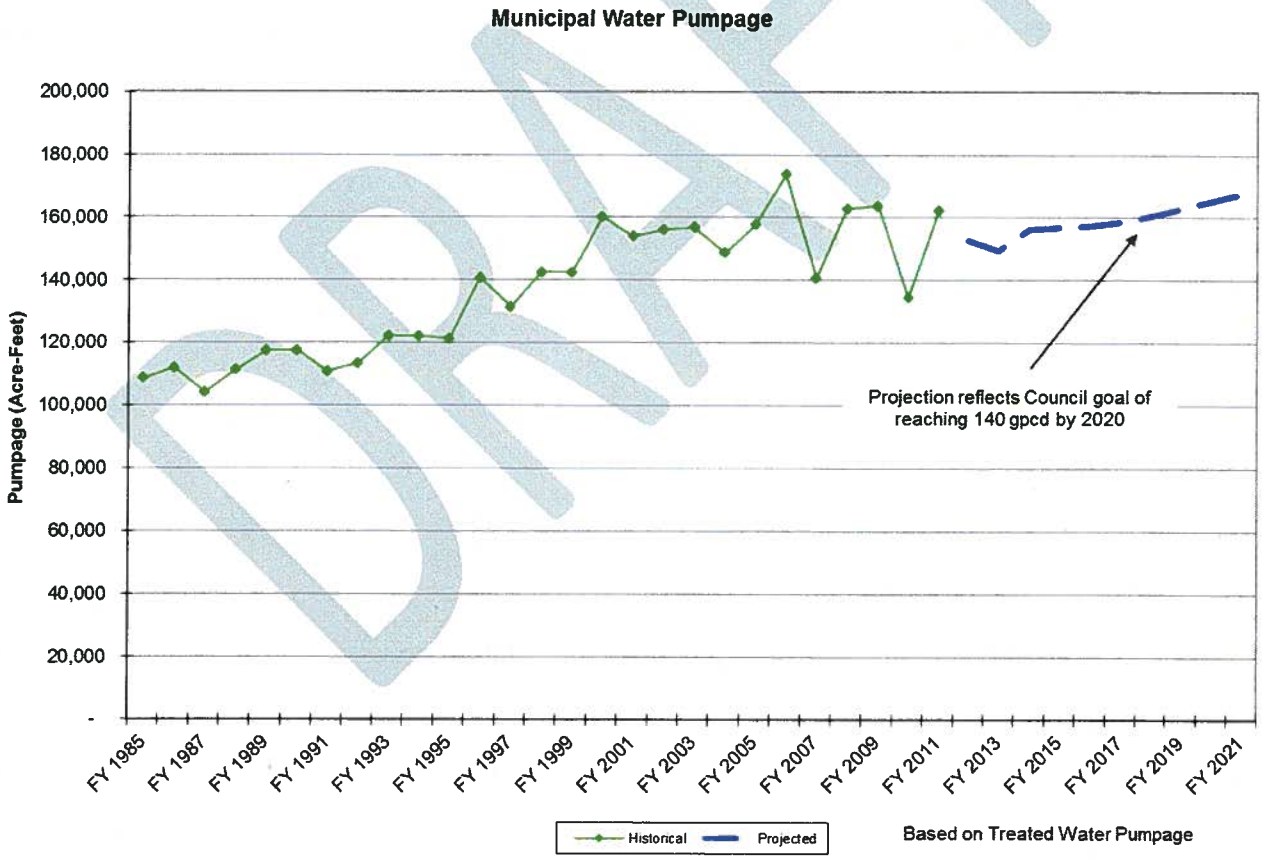
A. City of Austin Water Supply, Projected Demand, and Water Supply Contracts

The City holds permitted municipal water rights granted by the State of Texas to divert a maximum of 292,703 acre-feet per year (AF/yr) from the Colorado River for municipal use. These water rights are run-of-river rights in the State's priority water rights system. This means that the City is permitted to divert water under these rights if the water is available for diversion after other more senior water rights are first fulfilled. While Austin's water rights include some of the most senior water rights in the river basin, there are various conditions, typically during dry weather, under which this run-of-river water would not reliably be available to the City of Austin's

water rights. Therefore, Austin has entered into water supply contract agreements with LCRA to further ensure water availability under a wide range of hydrologic conditions, including droughts.

In 1999, the City of Austin secured a firm water supply of 325,000 AF/yr through a contract with LCRA using stored water in the Highland Lakes and other sources to back up Austin's senior water rights. This amount of water supply is projected to be sufficient to meet Austin's needs at least through the year 2050 to 2060 timeframe. This contract is renewable by the City of Austin through the year 2100. In 2007, Austin entered into a supplemental water supply agreement with LCRA to provide Austin with an additional 250,000 AF/yr of firm water to be jointly planned incrementally for future needs beyond the 1999 contract's 325,000 AF/yr level. The 325,000 AF/yr component of the City's firm municipal water supply described above (from Austin's senior water rights backed by contract with LCRA) is roughly double the peak annual diversion level of 170,122 AF/yr, which occurred in 2008. Figure 1 illustrates the amount of the City of Austin's municipal firm supply and the current and projected municipal demand for that water through 2021.

Figure 1



According to its 2010 Water Management Plan for the Lower Colorado Basin, LCRA plans to manage water supplies in the Colorado River to ensure that there is no shortage of stored water for firm demands during a repeat of the Drought of Record (DOR). When LCRA's Board declares that conditions are worse than the Drought of Record, also known as declaration of a Drought Worse than the Drought of Record (DWDOR), then LCRA requires mandatory curtailment of firm water demand. A declaration of a DWDOR includes evaluation of hydrologic and water supply conditions based on set criteria. LCRA may require mandatory curtailments of firm water demand under some other water emergency that drastically reduces the available firm water supply. If a DWDOR declaration is made, LCRA may, after notification and pro-rata curtailment plan approval, impose mandatory curtailment of firm customers. The City has adopted a Water Conservation Code (Appendix A) authorizing the City to consider and implement emergency conservation measures if the City were required to curtail water use during a DWDOR declaration.

B. Drought Conditions and Management Actions

LCRA manages the Highland Lakes, including its water supply reservoirs lakes Travis and Buchanan, as a system, resulting in a maximum combined storage capacity of just over 2.0 million acre-feet. LCRA uses combined storage levels in lakes Travis and Buchanan as an indicator of water supply conditions, including possible severe, long-term drought conditions, and to trigger drought contingency plan stage implementation. The drought of record for the Colorado River basin region, which includes the City of Austin, is the one which occurred during the years 1947-1957, when the combined water storage levels of lakes Travis and Buchanan fell to a low of 621,221 acre-feet.

In order to minimize negative effects from periods of severe water shortages, the Water Conservation Code (Section 6-4) outlines the City's stages for taking action in its retail service area during such periods caused by drought, water supply contamination, system outage due to failure or damage of water system, or other emergency conditions. In addition, if the available supply is less than the anticipated demand, the City will consider and implement additional emergency demand management measures, as outlined in the Water Conservation Code (Appendix A). All measures promulgated in the Water Conservation Code are considered part of this Plan.

C. Water System Capacity

Austin Water currently serves approximately 212,000 connections with over 3,500 miles of water mains. In 2011, Austin Water served an approximate retail service area population of 840,000 and a wholesale customer population of 52,000, for a total service population of approximately 892,000. Water is drawn from the Colorado River (on Lake Austin) into two water treatment plants (WTP) with a combined capacity to treat and distribute 285 million gallons per day (MGD). The next increment of capacity that will be added is 50 MGD with the City of Austin's Water Treatment Plant #4 project, which will draw from Lake Travis. Water Treatment Plant #4

is projected to increase the system capacity to approximately 335 MGD upon completion of Phase 1. Table 1 has a summary of the current plant capacities.

Table 1. Existing City of Austin Water Treatment Plants and Capacity

Plant Name	Year Constructed	Treatment Capacity (million gallons/day)
Davis	1954	118[a]
Ullrich	1969	167[b]
Total		285

a) Expanded in 1963, 1977, 1987, and 1999.
b) Modernized in 1993 to meet the higher standards of the Safe Drinking Water Act and expanded in 1987 and 2000. Capacity expansion from 100 to 167 MGD was completed in 2008.

Section III: Trigger Conditions and Goals

The City of Austin has established year-round water conservation measures that apply to its retail water customers. Residential and commercial facilities may use spray irrigation either before 10:00 a.m. or after 7:00 p.m. only on a designated outdoor water use day. Commercial patio misters may operate only between 4:00 p.m. and midnight. All customers are limited to no more than two designated outdoor water use days per week.

The City Manager or his/her designee monitors water supply, water system capacity and demand conditions to determine when to consider implementing additional conservation actions for the City's retail water customers as outlined in the demand, supply, and emergency triggers listed in Table 2.

Table 2. Demand, Supply and Emergency Triggers

	Trigger	Action	Goal	End Condition
Demand Triggers	260 mgd [a] for 3 consecutive days	City Manager may order Stage 2[b] Water Restrictions	Reduce water use by 15% of 260 mgd	City Manager ends based on daily supply and demand of water
	270 mgd for one day	City Manager may order Stage 2 Water Restrictions	Reduce current water use by 15% of 270 mgd	City Manager ends based on daily supply and demand of water
Supply Triggers	Combined lake storage falls below 1.4 million acre-feet	City Manager may order Stage 1 Water Restrictions	Reduce current water use by 5%	Considered when combined storage reaches 1.4 MAF and expected to remain above 1.4 MAF for four months
	Combined Lake storage falls below 900,000 acre-feet	City Manager may order Stage 2 Water Restrictions	Reduce current water use by 10 to 20%	Considered when combined storage reaches 1.1 MAF and projected to stay above 900,000 AF for four months[c]
	Combined Lake storage falls below 600,000 acre-feet or a drought worse than the drought of record is declared	City Manager may order Stage 3 Water Restrictions or Additional Restrictions as necessary to meet pro rata curtailment requirements	Reduce water use by a minimum of 20% from a baseline approved by LCRA, which may account for City's conservation measures	City Manager determines that condition is no longer required to meet mandatory curtailment targets; combined storage expected to remain above 600,000 AF for four months
Emergency Triggers	As determined by City Manager, system outage, equipment failure, contamination of water source or other emergencies	City Manager may order Stage 4 Water Restrictions or Additional Restrictions	Reduce water use to levels deemed necessary	City Manager ends based on daily water demand or the end of supply constraints

[a] million gallons per day

[b] detailed information about the conservation measures for each stage is located in Appendix A

[c] The City Manager may also base a determination to end restrictions on other conditions and an assessment of all relevant circumstances which in the judgment of the City Manager merit such action.

Procedures for the granting of variances to the watering restrictions are contained in the City of Austin Water Conservation Code and may be authorized if necessary to protect the public health and safety. Violations are subject to criminal and administrative penalties as provided in the Code.

Section IV: Wholesale Contract Provisions

New wholesale contracts include standard language requiring that the customer adhere to the City's peak water management ordinance. Generally, wholesale customers in a new contract are also required to establish a water conservation program similar to the one administered by the City. Customers with older contracts not requiring water conservation provisions are requested to voluntarily implement water conservation measures similar to those imposed by the City.

Pro rata curtailment shall be done in accordance with Texas Water Code §11.039. All new, renewed, or extended wholesale supply contracts will also include a provision that water shall be distributed on a pro rata basis in the event of a water shortage resulting from drought.

Enforcement actions for non-compliance with either the peak water management ordinance or pro rata water reductions by wholesale customers will vary according to the specifics of each wholesale customer's contract.

Section V: Public Involvement

The revisions to the Water Conservation Code, including those relating to drought management, were presented at four public meetings, as well as at meetings of the City advisory boards (Water and Wastewater Commission, Resource Management Commission). The opportunities for Austin Water's retail and wholesale water customers to offer input into the development of the Plan included:

- A series of public workshops to gather citizen, wholesale customer, and stakeholder feedback on the current Water Conservation Code (Chapter 6-4 of City Code) and drought response measures, and how to better regulate water use during future droughts. Input received during these workshops was used in revising the Water Conservation Code and developing the Plan.
- A forum at SpeakUpAustin.org for interested parties to get information and leave feedback on revisions to the Water Conservation Code.
- Presentations at meetings of the Water and Wastewater Commission and the Resource Management Commission. Their resolutions supporting the Plan are in Appendix C.

Section VI: Public Notification and Education

The City will provide its wholesale and retail water customers with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of press releases, newspaper advertisements, web page updates, presentations to community organizations and neighborhood groups, meetings with wholesale customers, and other outreach methods as appropriate. The City will also make water

conservation-related public information materials, including brochures and program information, available to its wholesale water customers for distribution to their retail customers.

Section VII: Coordination with Regional Planning Groups (RPG)

The City of Austin has provided a copy of this Plan to the Lower Colorado Regional Planning Group (Region K). A copy of the transmittal letter to the planning group is provided in Appendix D.

Section VIII: TCEQ Notification

The City shall notify the executive director of the Texas Commission on Environmental Quality within five (5) business days of the implementation of any mandatory provisions of the Drought Contingency Plan.

Section IX: Plan Review and Updates

This Plan was developed to meet the requirements in 30 TAC § 288.20 and § 288.22 to submit a Drought Contingency Plan and provide the community and water customers with essential drought contingency response information, regulations, and services. The Plan will be reviewed at minimum every five (5) years and updated as needed based on major developments in Austin's water service area. The next scheduled plan review and update will occur in 2014.

APPENDIX A: Water Conservation Code

Revised Water Conservation Code will be inserted in Appendix A once it has been approved by City Council

APPENDIX B: Water Use Triggers for Water Use Management Ordinance

MEMORANDUM

TO: Greg Meszaros, Director

FROM: Jane Bunzer, Assistant Director
Water and Wastewater Treatment

DATE: May 20, 2008

SUBJECT: Conservation Triggers

The purpose of this memo is to recommend water usage triggers for this summer under the Water Conservation Ordinance. The requirements under Stage II Water Use Restrictions have changed from previous years. As Stage I now mandates a twice/week outdoor watering schedule, this year, the Stage II will mandate a one day per week outdoor watering following the prescribed schedule in the rule.

The conservation triggers for Stage II Water Use Restrictions are historically based upon system capacities. To reduce the reliance on the Green WTP which is slated for decommissioning in the fall of 2008, the recommended triggers for Stage II Mandatory Water Use Restrictions for this summer is based on a system capacity of 285 MGD. The recommended triggers are:

3 consecutive days of water usage	260 MGD
1 day of water usage	270 MGD

As in past years, it is recommended that Stage III Mandatory Water Use Restrictions be determined as needed by the Director of the Austin Water Utility.

If you have any questions or need additional information, please call me.

Jane Bunzer, Assistant Director
Water and Wastewater Treatment
Austin Water Utility

Concurrence:

Greg Meszaros, Director

5/21/08.
Date

APPENDIX C: Resolutions in Support of Adoption of the Drought Contingency Plan

(1) Water and Wastewater Commission Resolution
(2) Resource Management Commission Resolution

APPENDIX D: Transmittal Letter to Regional Planning Group

John Burke, Chair
Lower Colorado River Authority (LCRA)
Attn: Region K
Mailstop R325
P.O. Box 220
Austin, TX 78767-0220

June 29, 2012

Dear Mr. Burke:

The enclosed Drought Contingency Plan, which updates the previously adopted 2009 Drought Contingency Plan, was developed by the City of Austin to fulfill Texas Commission on Environmental Quality (TCEQ) requirements for retail and wholesale water providers as outlined in Texas Administrative Code Title 30, Chapter 288. It is being forwarded to TCEQ.

If you have any questions on the enclosed plan please contact me at 512-974-2787.

Sincerely,

Drema Gross
Austin Water
Water Conservation Division Manager

RESOLUTION NO.

Council repeals Resolution No. 20090423-002 and adopts a new plan entitled the City of Austin Drought Contingency Plan as shown in Exhibit A. This plan is a requirement of the Texas Commission on Environmental Quality.

ADOPTED: _____, 2012 **ATTEST:** _____
Shirley A. Gentry
City Clerk