

Austin City Code, Chapter 6-4 Water Conservation

Code Revisions and Variances

Grow Green Professional Training Series 01/23/13

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Need for Code Revisions

- **2011 Drought highlighted the Code's impacts on both economic and environmental investments of Austin Water Utility commercial and residential customers**
- **AWU realized current Stage 3 regulations were not written for long-term, severe drought.**
- Needed to implement mandatory irrigation evaluations as recommended by Council
- Needed to switch to administrative enforcement of water use regulations
- Needed to correct conflicts with other City Codes
- Needed to update the Drought Contingency Plan for Texas Commission on Environmental Quality

Code Revision Process - What We Heard...

Support for...

Stronger restrictions in normal / early drought

- Enabling efficient irrigation of trees and vegetable gardens
- *Protecting business interests in drought conditions*
 - Requiring year round certification of efficient car washing equipment
 - *Requiring irrigation audits for certain commercial properties*
 - Allowing cosmetic power washing to operate longer
- Enforcement of water use regulations through water bill fines

	Conservation	Stage 1	Stage 2	Stage 3	Stage 4
Storage:	Above 1.4 MAF	<= 1.4 MAF	900,000 AF	600,000 AF	Emergency
Irrigation	2x/wk (30 hrs total) No midday watering (except by hand)	2x/wk (20 hrs total) No midday watering (except by hand)	1x/wk (10 hrs total) No midday watering (except by hand)	1x/wk (6 hrs) No midday watering May require wholesale curtailment	May further restrict outdoor irrigation
Exemptions	Drip irrig , tree watering & veg garden irrig with drip, bubble, soaker exempt				
Restaurants	Water on request				
	Commercial patio misters 4p-midnight			Comm patio misters 4-8pm	Comm patio misters prohibited
Car Washing	Comm washes must meet efficiency standards	Home car wash on designated day	Home & charity car washes prohibited		All car washing prohibited
Recreational Water Use	Fountains must recirculate			Orn. fountains, splash pads & spas prohibited	No filling of pools or ponds; no outdoor recreational use
Pressure Washing	Commercial pressure washing must recycle			Comm. & private power washers must recycle	All cosmetic power washing prohibited
Commercial Plant Nursery	Exempted				

Article II, Water Use Management

Exemptions:

Conservation Stage  Stage 1

- *Water use necessary to comply with federal, state, or local land development permits requiring the establishment of landscaping*

Article II, Water Use Management

Exemptions:

Conservation Stage  Stage 4

- Water use necessary (*other than for landscape irrigation*) to comply with federal, state, or local permits related to land development permits *including...maintenance of trees subject to preservation restrictions or requirements*

Article II, Water Use Management

Exemptions:

Conservation Stage  Stage 3

- *Drip irrigation*
- *Irrigation of trees within drip-line using bubblers or soaker hose*
- Vegetable gardens using a soaker hose
- Athletic Fields

Article II, Water Use Management

Conservation Stage (lake levels above 14 *MAF)

- 2 days/ week; 30 hours available for irrigation

Stage 1 (lake levels below 14 MAF)

- 2 days/ week: 20 hours available for irrigation

*Million Acre Feet

Article II, Water Use Management

Stage 2 (lake levels below 900,000 AF)

- 1 day/ week irrigation; 10 hours available

Stage 3 (lake levels below 600,000 AF)

- 1 day/ week irrigation; 6 hours available

Stage 4 (lake levels below 300,000 AF)

- Outdoor irrigation prohibited

Watering Window (Times)

➤ Conservation Stage (30 hours weekly)

- Hose-end and Automatic
- Midnight-10:00 a.m. AND 7:00 p.m.- Midnight

➤ Stage 1 (20 hours weekly)

- Hose-end Midnight -10:00 a.m. AND 7:00 p.m.- Midnight
- Automatic Midnight – 5:00 a.m. and 7:00 p.m. – Midnight

➤ Stage 2 (10 hours weekly)

- Hose-end Midnight -10:00 a.m. AND 7:00 p.m.- Midnight
- Automatic Midnight - 5:00 a.m. AND 7:00 p.m.-10:00 p.m.

➤ Stage 3 (6 hours weekly)

- Hose-end 7:00 a.m. - 10:00 a.m. AND 7:00 p.m.- 10:00 p.m.
- Automatic Midnight – 6:00 a.m.

New 1 Day/ Week Schedule (Modified to minimize system impacts and control peak day)

Applied during Stages 2 and 3:

- Sunday Residential Hose-End Sprinkler Systems – Even numbered addresses
- Monday Public schools and UT
- Tuesday Multi-family/Comm - Odd numbered addresses
- Wednesday Residential Automatic Sprinkler System - Odd numbered addresses
- Thursday Residential Automatic Sprinkler System – Even numbered addresses
- Friday Multi-family/Comm - Even numbered addresses
- Saturday Residential Hose-End Sprinkler Systems - Odd numbered addresses

Article II, Water Use Management

Variations


- Given where there is a threat to health, safety or sanitation
- Given where there is a threat to the applicant's primary source of income
- Must comply with the prohibition on water waste


Conservation Stage  Drought Response Stage 3

- *Watering day variance for large properties*
- *Environmental Impact*, to avoid or mitigate a significant adverse impact on an endangered or listed protected plant, animal, or aquatic species or critical environmental feature present on the property or to maintain the traditional and natural character of a critical environmental feature.
- Tree disease treatment or pest control prescribed by licensed professional

Article II, Water Use Management

Variances

- **Conservation Stage**  **Drought Response Stage 1**
 - Newly installed landscaping; irrigation on a diminishing 30-day schedule (no extensions)

- **Conservation Stage**  **Drought Response Stage 3**
 - Newly installed Xeriscaping 40-day diminishing schedule (possible 40-day extension)

Chapter 6-4 Xeriscape, New Landscape

Must fit the definition of both “Xeric” and “New Landscape” as defined by code if newly planted vegetation will require establishment irrigation out of designated watering days (variance).



Chapter 6-4 Definition of Xeric, New Landscape:

Xeric, in this case, means plants from the AWU list, designated as “low” and “very low” water users

New Landscape means vegetation:

- *installed at the time of construction of a residential or commercial facility;*
- *installed as part of a governmental entity’s capital improvement project;*
- *installed to stabilize an area disturbed by construction; or*
- *that alters more than 500 contiguous square feet of an existing landscape.*

Xeriscaping Variance Irrigation Schedule

Irrigation for establishment of Xeriscaping must comply with the following:

- for the first **10 days** following installation, irrigation is permitted daily before 10:00 a.m. and after 7:00 p.m.; and
- for the 11th through the 40th day following installation, irrigation is permitted twice per week before 10:00 a.m. and after 7:00 p.m.; and
- if the landscape installation is required in order to obtain a certificate of occupancy for a newly constructed single family home, the applicant shall provide a completed notice of irrigation variance to the director on the form provided by Austin Water at least one full business day before the landscape is installed.
- A one-time extension of the approved variance may be granted by the director only upon the submittal by the applicant of a written request which demonstrates a clear need for the extension to establish the new landscaping.

Xeriscaping Variance Approved Plant List

- In sync with Grow Green's guide, except for turf varieties (Bermudagrass categorized as "low" water use).
- Provides a wide pallet of trees, shrubs, perennials, succulents and grasses from which builders, homeowners and landscape professionals can select.



Xeriscaping Variance Approved Plant List (cont.)

- Provides builders with a pallet of landscape options to ensure their continued ability to install vegetation as a part of their building package.
- Plants on this list will require minimal maintenance, and be less likely to fail as a result of drought conditions.
- Provides an irrigation option where none had existed before in escalated stages of drought response.

➤ General Regulations always in effect

- Water waste prohibited, commercial irrigation audits & car wash certification required

➤ 5 Conservation Stages (one always in effect based on storage/demand)

- Conservation Stage (Above 1.4 MAF)
 - Two days per week outdoor irrigation for residential customers (30 hours/week max)
- Drought Stage 1 (Trigger of 1.4 MAF)
 - Two days per week outdoor irrigation (20 hours/week max)
 - Home car washing on designated outdoor water use day
- Drought Stage 2 (Trigger of 900K ac ft.)
 - One day per week outdoor irrigation (10 hours/week max)
 - Home and Charity car washing prohibited
- Drought Stage 3 (Trigger of 600K ac ft.)
 - One day per week outdoor irrigation (6 hours/ week max)
- Drought Stage 4 – Catastrophic
 - Outdoor water use for health and safety reasons only

➤ Enforcement

- Decriminalized and removed from the Municipal Court and moved to fines on water bills
- Customer/AWU retains option to pursue in court

Key Points.....




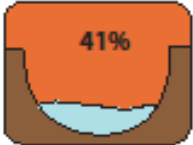

Exemptions - drip irrigation and tree watering through Stage 3

Landscape vegetation must adapt to Austin's new year-round 2 day per week or, 1 day per week irrigation schedule. Irrigation systems must be designed and installed correctly to deliver water efficiently to plant material within the available watering window times (30, 20, 10 or 6 hours per week)

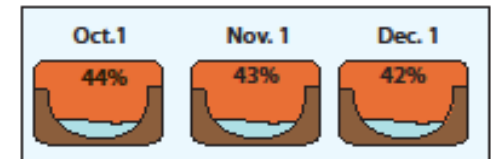
Water Supply Status

January 1, 2013

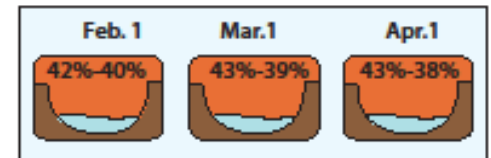
Lakes Travis and Buchanan Current Storage : 825,000 acre-feet (AF)

				We Are Here 	
Water Supply	Good 2 - 1.7 MAF (> 85%)	Fair <1.7 - 1.4 MAF (85% - 70%)	Cautious < 1.4 MAF - 900,000 AF (70% - 45%)	Severe < 900,000 - 600,000 AF (45% - 30%)	Emergency < 600,000 AF (< 30%) Drought worse than Drought of Record)
Impacts	None	Begin environmental reductions**	<ul style="list-style-type: none"> Request voluntary firm demand reductions. Reduce agricultural supply** 	<ul style="list-style-type: none"> Increase reductions for agriculture* Increase voluntary reduction for firm demand Increase reductions for environmental** 	<ul style="list-style-type: none"> Agricultural supply cutoff Firm pro-rata curtailment
Actions		January 1, 2011, reduced supply for environmental flows when storage was 1.55 MAF	<ul style="list-style-type: none"> May 2, 2011, requested voluntary firm demand reductions, when storage was less than 1.4 MAF. April 18, 2012, requested continuation of mandatory firm demand reductions until storage exceeds 1.1 MAF 	<ul style="list-style-type: none"> August 23, 2011, requested firm water customers implement mandatory water use restrictions Jan. 1, 2012, further reduced supply for environmental flows when storage was 0.74 MAF March 1, 2012, reduced supply for agriculture when storage was 847,324 AF Nov. 21, 2012, requested emergency drought relief measures from TCEQ to reduce availability of interruptible supply. 	
Forecast				Storage could fall to about 790,000 AF by Feb. 1 if very dry conditions persist	

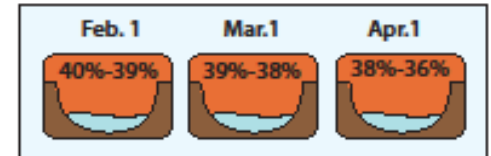
Last Three Months



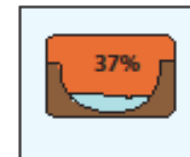
Average Outlook



Very Dry Outlook



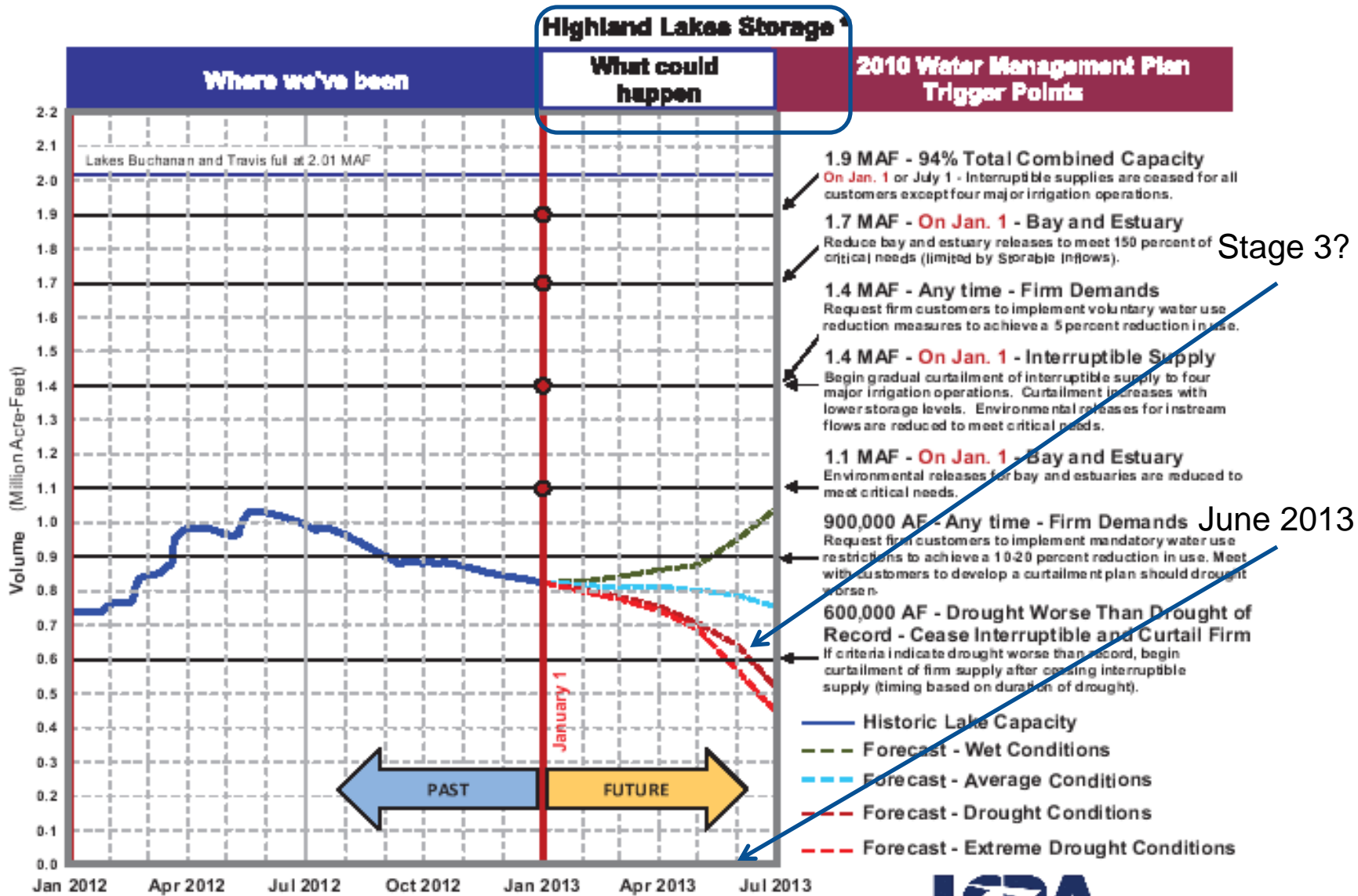
1 Year Ago



* Based on March 1 storage in lakes

** Based on Jan. 1 storage in lakes

Note: One acre-foot (AF) equals 325, 851 gallons.



Note: MAF equals One Million Acre-Feet
One Acre-Foot (AF) equals 325,851 gallons.

Date: December 31, 2012



* Projections do not take into account the emergency drought relief being considered by TCEQ.



Questions/ Comments?