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

Variances

- 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
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)

Exemptions - drip irrigation and tree watering through Stage 3
Water Supply Status
January 1, 2013
Lakes Travis and Buchanan Current Storage: 825,000 acre-feet (AF)

<table>
<thead>
<tr>
<th>Water Supply</th>
<th>Good</th>
<th>Fair</th>
<th>Cautious</th>
<th>Severe</th>
<th>Emergency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Supply</td>
<td>2 - 1.7 MAF (&gt; 85%)</td>
<td>&lt;1.7 - 1.4 MAF (85% - 70%)</td>
<td>&lt;1.4 MAF - 900,000 AF (70% - 45%)</td>
<td>&lt;900,000 - 600,000 AF (45% - 30%)</td>
<td>&lt;600,000 AF (&lt;30%) (Drought worse than Drought of Record)</td>
</tr>
</tbody>
</table>

**Impacts**
- None
- Begin environmental reductions**
- Request voluntary firm demand reductions.
- Reduce agricultural supply**
- Increase reductions for agriculture*
- Increase voluntary reduction for firm demand
- Increase reductions for environmental**
- Agricultural supply cutoff
- Firm pro-rata curtailment

**Last Three Months**
- Oct. 1: 44%
- Nov. 1: 43%
- Dec. 1: 42%

**Average Outlook**
- Feb. 1: 42%-40%
- Mar. 1: 43%-39%
- Apr. 1: 43%-38%

**Very Dry Outlook**
- Feb. 1: 40%-39%
- Mar. 1: 39%-38%
- Apr. 1: 38%-36%

**1 Year Ago**
- 37%

* Based on March 1 storage in lakes
** Based on Jan. 1 storage in lakes

Note: One acre-foot (AF) equals 325,851 gallons.
Stage 3?
June 2013
Questions/ Comments?