ADDRESSING WATER SHORTAGES
DROUGHTS AND OTHER EMERGENCIES

Recommended Revision to
Chapter 47, Article VII

September 12, 2012

BACKGROUND

• Proposed ordinance presented to TTI Committee 5/31
• Public Comment Periods
  – June 6 to June 27
  – July 24 to August 17
• Presentations to Stakeholder Groups
  – Super Neighborhood Alliance
  – East Harris County Manufacturers’ Association
  – Water Resource Stress Conference
• Focused meetings with
  – Texas Nursery and Landscapers’ Association
  – East Harris County Manufacturers’ Association
  – Regional Water Authorities
• Further consideration and revision
OBJECTIVES

- Improve stages as management framework
- Clarify criteria for stages
- Establish measurable goals for reductions within each Stage
  - Decrease system peaking due to irrigation restrictions
  - Establish rationing to reduce use across all customer types
- Clarify steps to declare, progress and rescind stages
- Clarify violations, enforcement and affirmative defenses

Stages and Conditions
Recommended Provisions

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABNORMAL</td>
<td>SEVERE</td>
<td>EXTREME</td>
<td>EXCEPTIONAL</td>
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<tr>
<td>Goal of 5% Overall Reduction</td>
<td>Goal of 10% Overall Reduction</td>
<td>Goal of 20% Overall Reduction</td>
<td>Goal of 35% Overall Reduction</td>
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<tr>
<td>Voluntary Restrictions</td>
<td>Mandatory Restrictions</td>
<td>Mandatory Reductions</td>
<td>Rationing</td>
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</tbody>
</table>
RESPONSES TO PUBLIC INPUT

CHANGES TO PROPOSED ORDINANCE

- Outdoor Uses
  - Allowance of hand watering
  - Earlier evening start time
  - Progression from twice to once weekly restricted watering
  - Specific inclusion of foundation watering
  - Seasonal flexibility for restrictions
- Confirmed applicability to City Departments by stage
- Confirmed voluntary measures in Stage 1 become mandatory in Stage 2
- Clarified context for force majeure declaration
- Lengthened non-residential usage baseline
- Added affirmative defenses for
  - Emergency Response
  - Multi-Family compliance with rationing

RESPONSES TO PUBLIC INPUT

ISSUE ADDRESSED BY PROPOSED ORDINANCE

- Balancing demands with restricted outdoor uses
- Use of reclaimed water (AC condensate, rainwater, etc.)
- Equitability concern of rationing for large families
- Customer consumption awareness during stage 4
- Adequacy of watering periods for low volume irrigation systems
- Fairness in restrictions for areas served through wholesale contracts
RESPONSES TO PUBLIC INPUT
CONSIDERED BUT NOT PROPOSED

- Later morning end time for outdoor restrictions
- Foundation watering at Stage 3 and 4
- Exceptions for new plantings
- Allowance for make-up water for pools

Summary of Improvements

- Consistency of definitions
- Progressive response stages
- Established priority for reduction in use
  - Outdoor Use is first (non-essential)
  - Indoor/production uses not impacted until Stage 4
- Updated enforcement provisions
- Better provides for contract customer measures