



# **Public Utilities Committee**

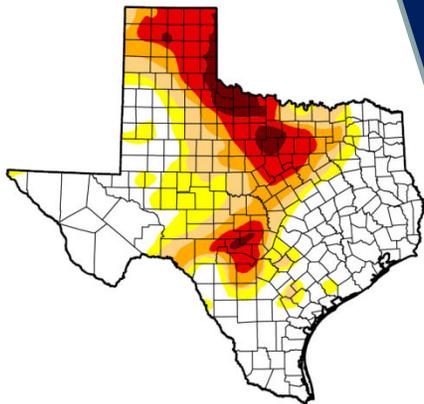
## **Drought Update & Briefing on Watering Restrictions**

Daryl Slusher, Assistant Director  
Austin Water

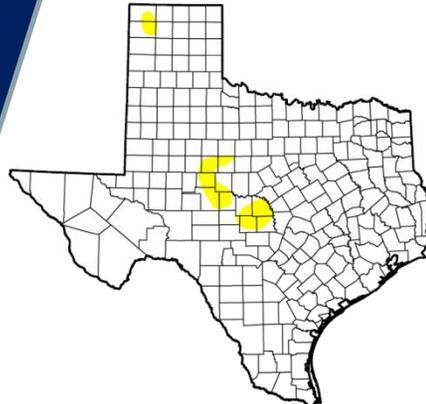
September 16, 2015

# Drought is Creeping Back In

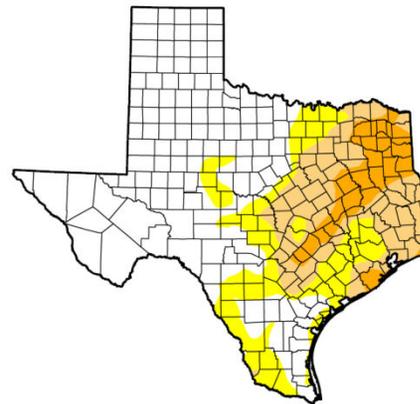
May-  
June  
Rains



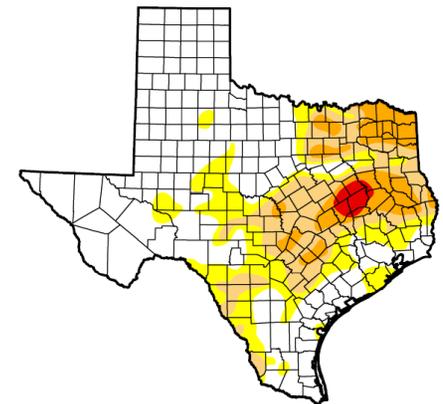
April 7, 2015



July 14, 2015



August 18, 2015



September 1, 2015



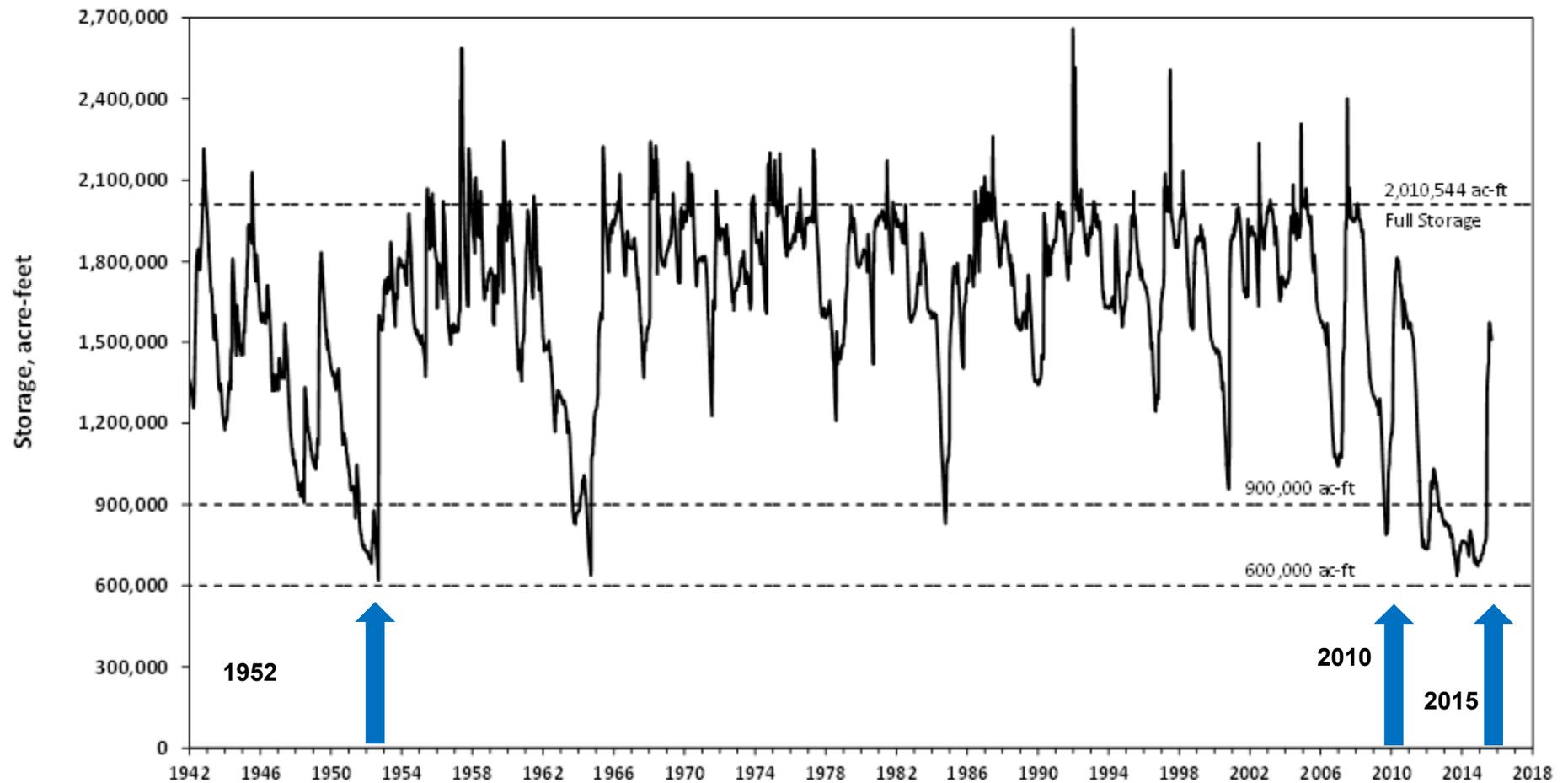
Intensity:



<http://droughtmonitor.unl.edu/>

# Historical Multi-Year Drought Trends

Combined Storage of Lakes Buchanan and Travis  
January 31, 1942 through September 1, 2015



# Looking to the Future And The Distant Past

## Climate Change

Region will likely shift to a **hotter, drier climate**, with **more extreme weather**.

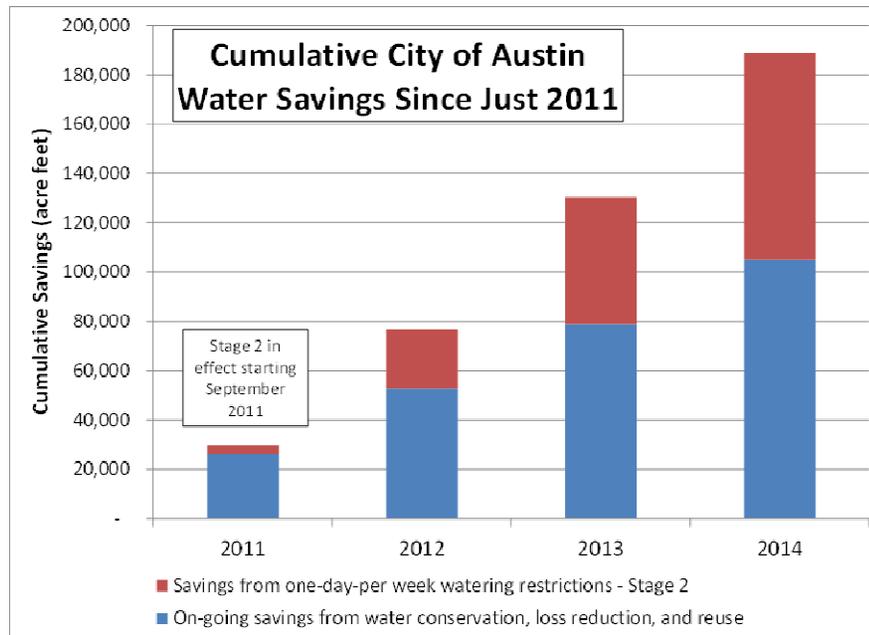
## Drought through the Centuries

2011 Texas Water Journal Tree Ring Study, which analyzed data back to 1500: **“The recurrence of severe prolonged drought...appears to be the norm, not the exception.”**

# Moving Forward

- Remain in Stage 2 restrictions for the foreseeable future
- Continue providing conservation information, tools and rebates
- Consider changes to code and drought plan to make one-day-per-week watering restrictions permanent
  - Similar to 2012 process, with stakeholder & community input
  - Consider easing of some non-irrigation restrictions as part of process

# Water Conservation Code & Drought Contingency Plan



- ‘Do more earlier’ approach recommended by citizens in 2012 Stakeholder Process
- One-day-per-week watering in Stage 2
  - Austin's conservation, reuse, water loss reduction efforts, and Stage 2 restrictions have saved an estimated 185,000+ acre-feet (2011-2014) – more than Austin uses in a year

# Reasons for Considering One-Day-Per-Week Permanently

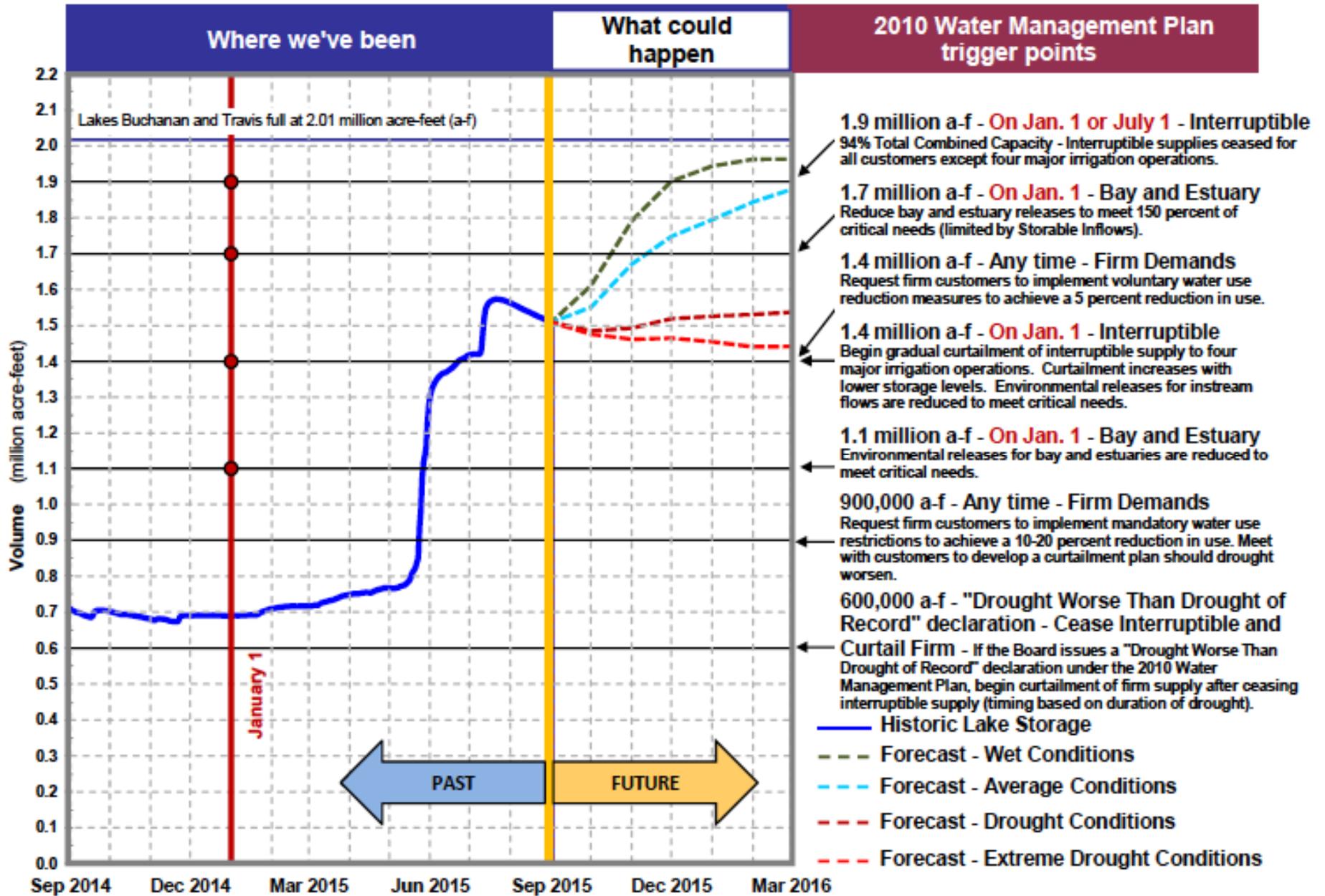
- Very effective in conserving water and protecting lake levels
- Delay of LCRA payment trigger saves ratepayers \$10-15M/year
- Strengthens Austin's position in pending LCRA Water Management Plan revisions
- Water conservation protects long-term investments on Colorado River and Highland Lakes, Austin's sole water source
- Early conservation can postpone more extreme restrictions and corresponding impacts on businesses, residents and tree canopy
- Continues encouraging residents to switch to drought-tolerant landscapes

# Considerations During Process

- Ensure broad participation in process
- Enhance 2012 Drought Contingency Plan with lessons learned from drought
- Work with LCRA to ensure Austin is not penalized for conservation efforts
- Continue protecting tree canopy
- Consider easing some non-irrigation restrictions as part of overall package
  - e.g., fountains, power-washing, misters, car-washing

# Extra Slides

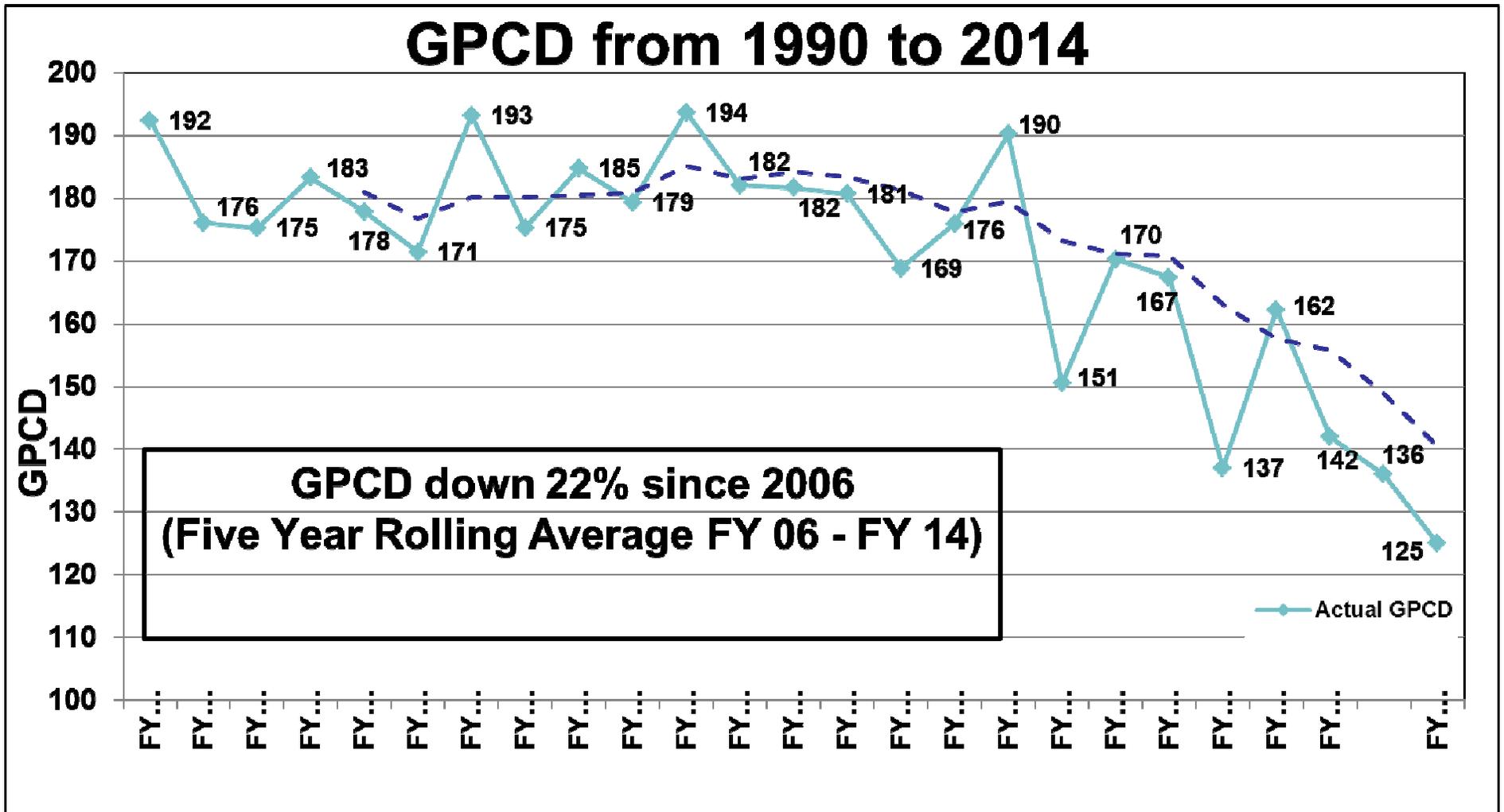
## Highland Lakes Storage



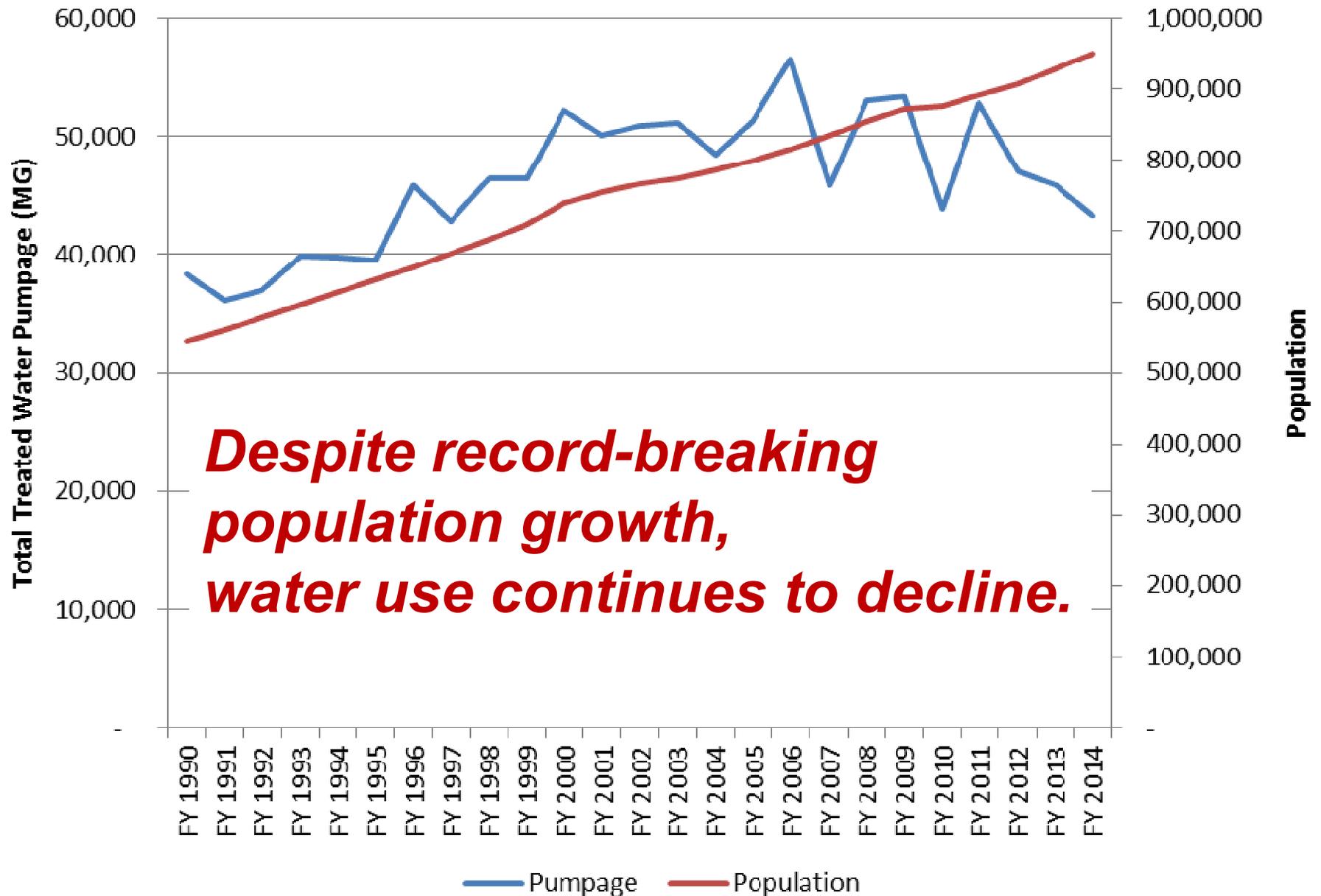
Note: One acre-foot equals 325,851 gallons.

Date: September 1, 2015

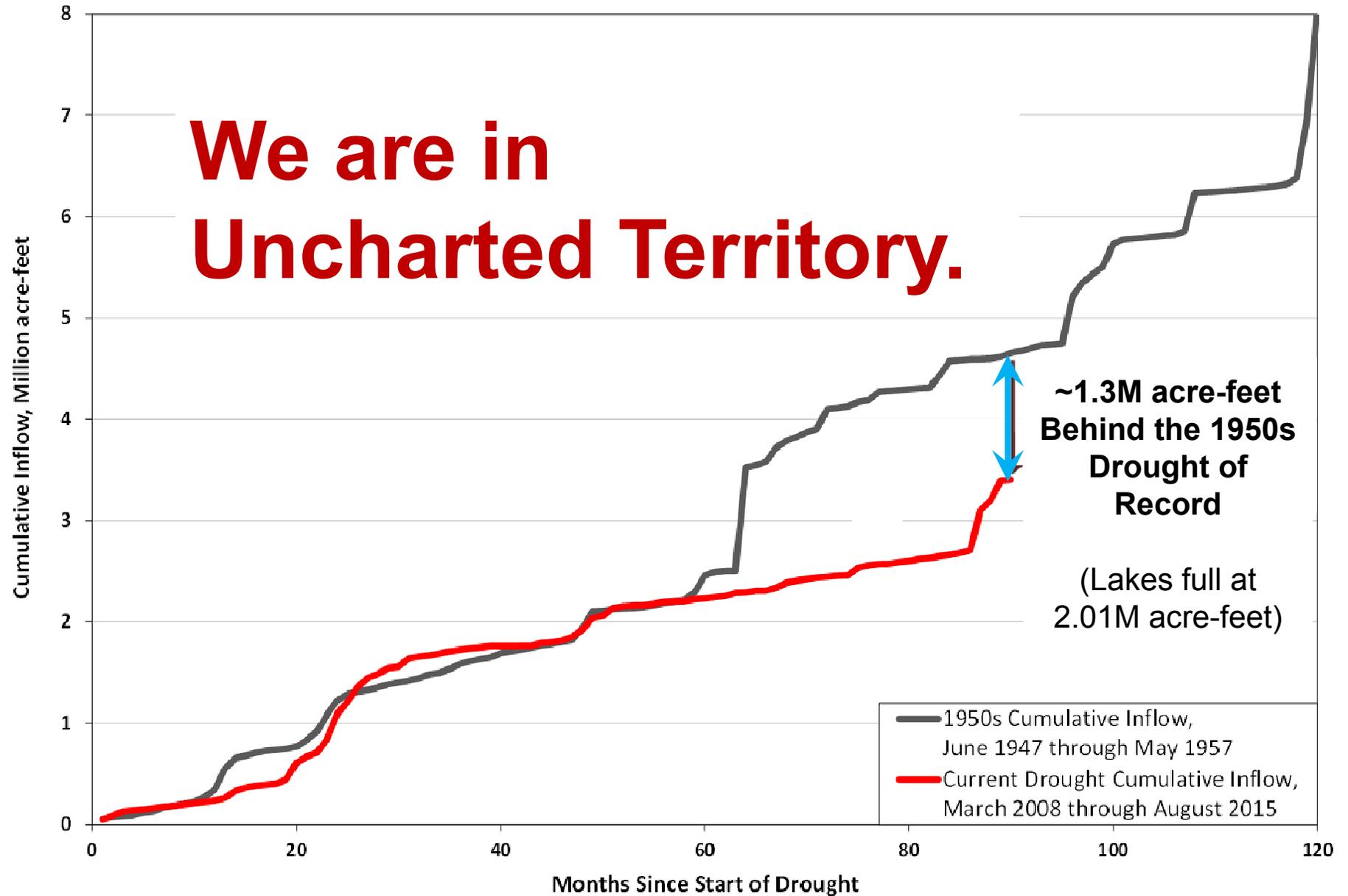
# *Per capita water use is declining.*



# Austin's Water Demand and Population

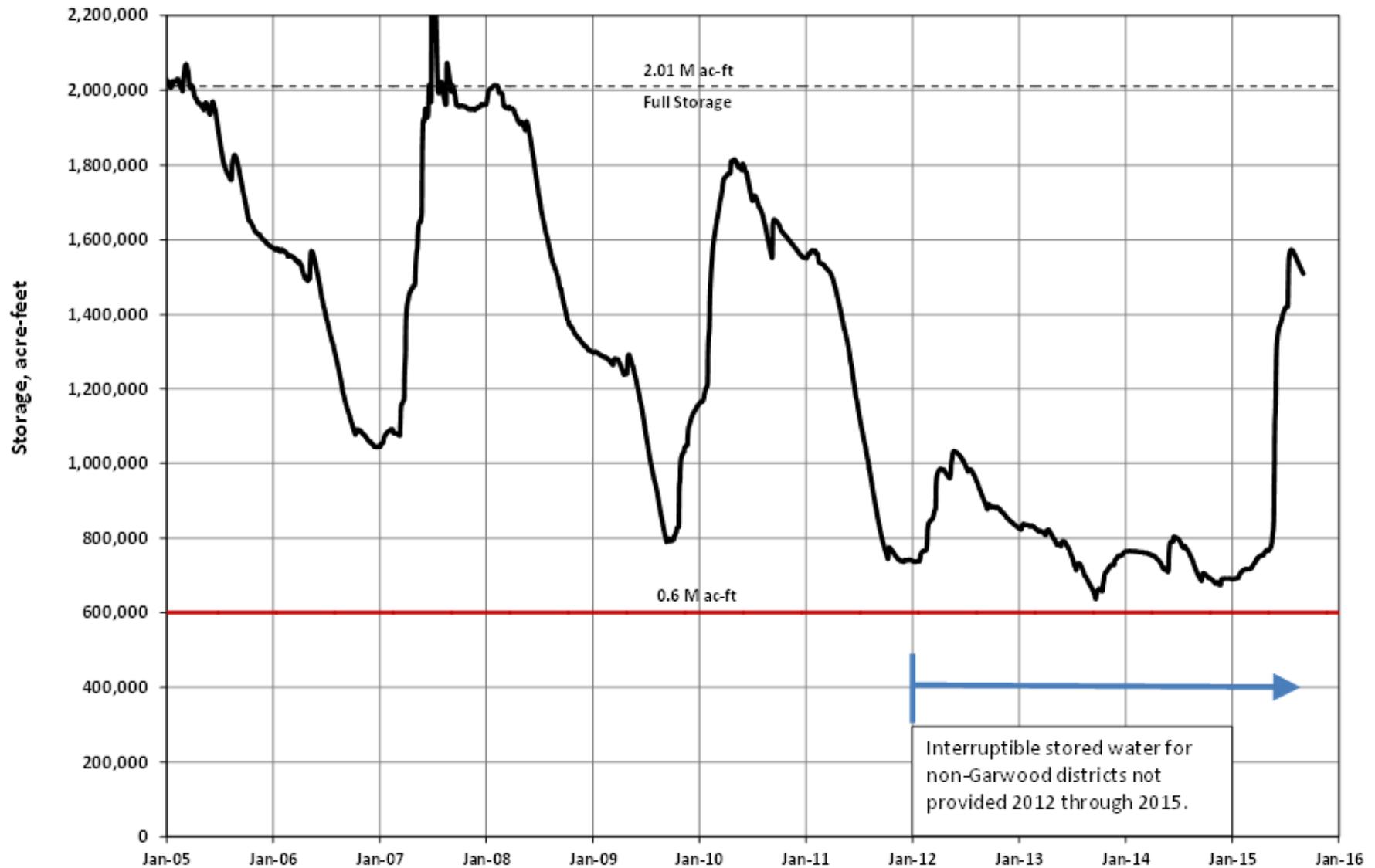


## Cumulative Inflow to Lakes Buchanan and Travis



# Multi-Year Trend of Current Drought

Combined Storage of Lakes Buchanan and Travis  
January 1, 2005 through September 1, 2015



# LCRA Water Management Plan

- State-approved plan guides LCRA's management of stored water in Lakes Travis and Buchanan:
  - Firm supply, Interruptible supply, Environmental flows
- LCRA has duty to protect firm water supply
- City actively participating in plan revision process
- LCRA WMP revisions pending at TCEQ
  - Revisions are more protective of firm water supply
    - Hydrology includes drought through 2013
    - Interruptible curtailment storage triggers updated including cutoff triggers
    - Consideration of recent inflows and storage conditions
    - Plan to include “look-ahead test” to project conditions
    - Two interruptible supply decision points within crop year with a volumetric cap