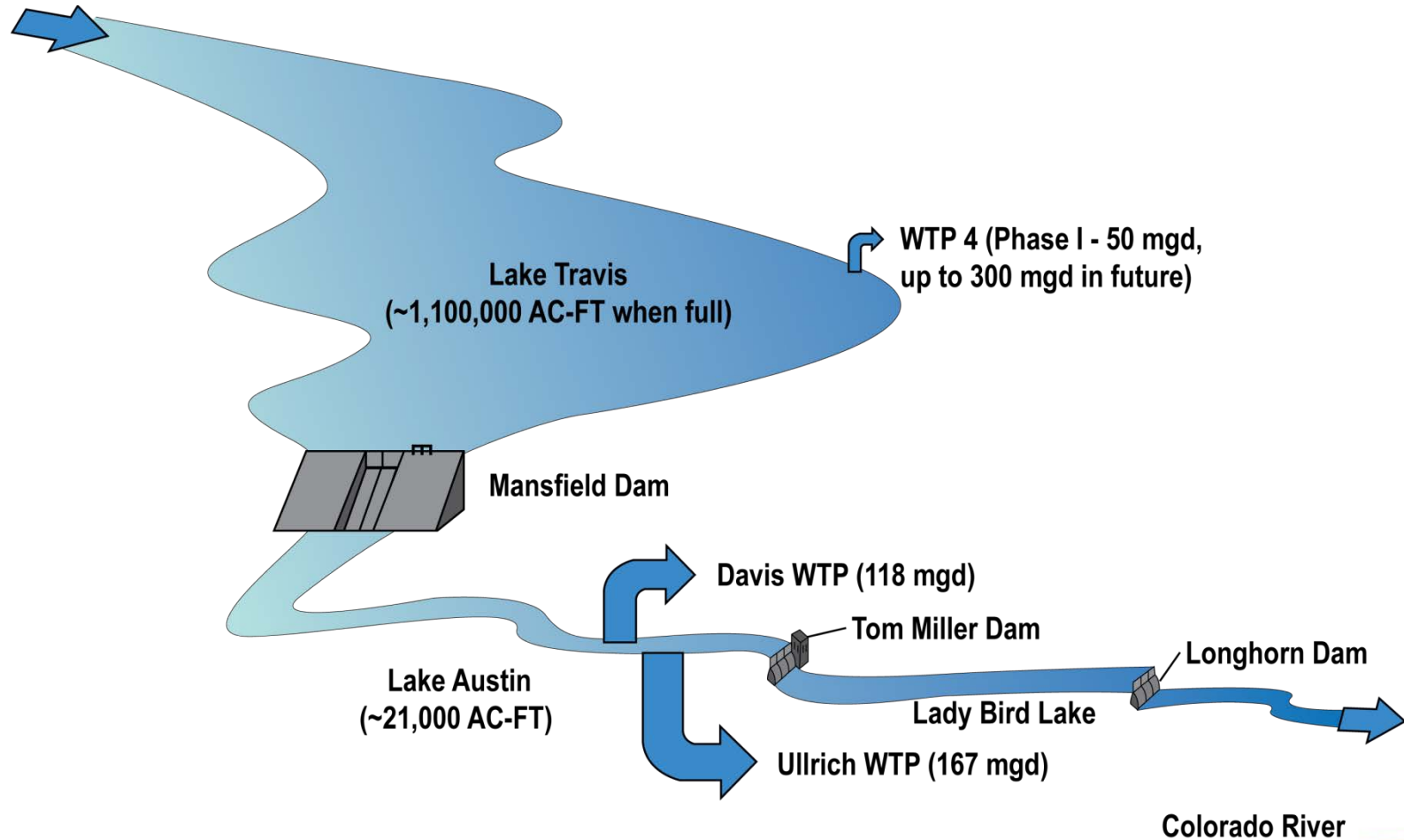


# **City of Austin Drought and Water Planning Update**

**Resource Management Commission  
January 20, 2015**

# Austin Water Supply



# 10 Lowest Annual Inflows on Record

| Rank                 | Year         | Annual Total in Acre-Feet |
|----------------------|--------------|---------------------------|
| 1                    | 2011         | 127,801                   |
| 2                    | 2014         | 209,023*                  |
| 3                    | 2013         | 215,138                   |
| 4                    | 2008         | 284,462                   |
| 5                    | 2006         | 285,229                   |
| 6                    | 1963         | 392,589                   |
| 7                    | 2012         | 393,163                   |
| 8                    | 1983         | 433,312                   |
| 9                    | 1999         | 448,162                   |
| 10                   | 2009         | 499,732                   |
| Average Annual Total | 1942 to 2014 | 1,080,541                 |

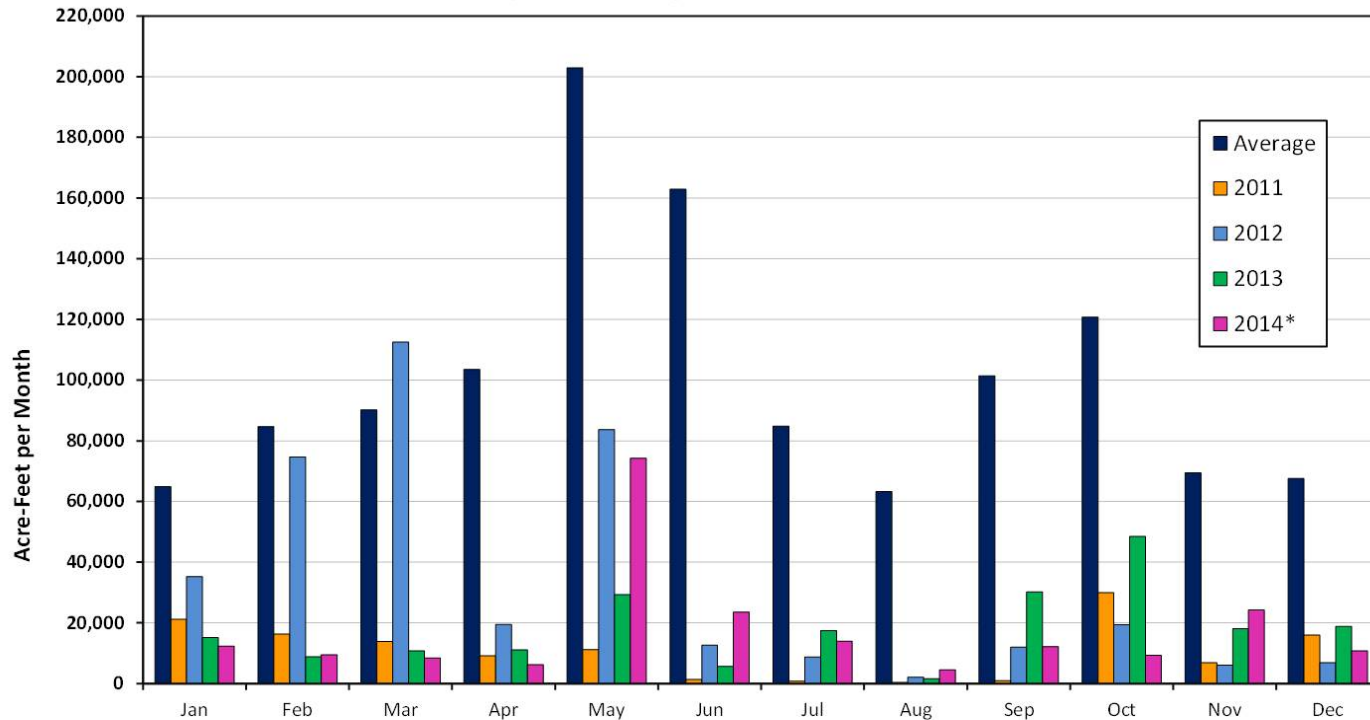
Top 5 All-time Lowest have occurred since 2006

In past 7 years only 2010 not in Top 10

\*Note: The 2014 inflow data is provisional and is subject to minor adjustments.

## Gaged Inflows to Lakes Buchanan and Travis

Updated through the end of December 2014



### Calendar Year Totals, ac-ft

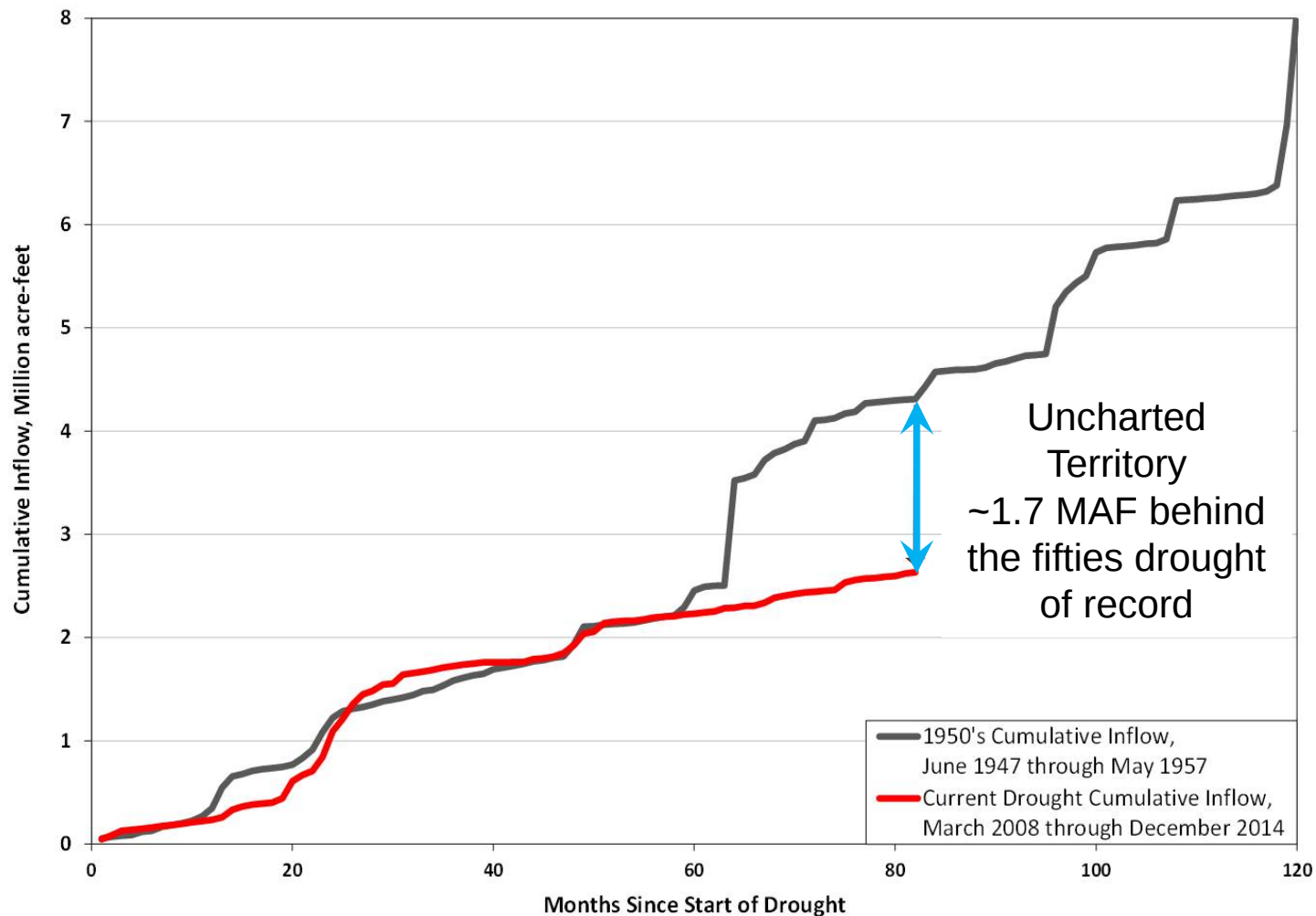
Average: 1,216,295  
 2011: 127,802  
 2012: 393,163  
 2013: 215,138  
 2014: 209,023

Monthly averages correspond to the historical period of record, 1942 through present.

\*Inflow data for 2014 are preliminary and subject to revision.

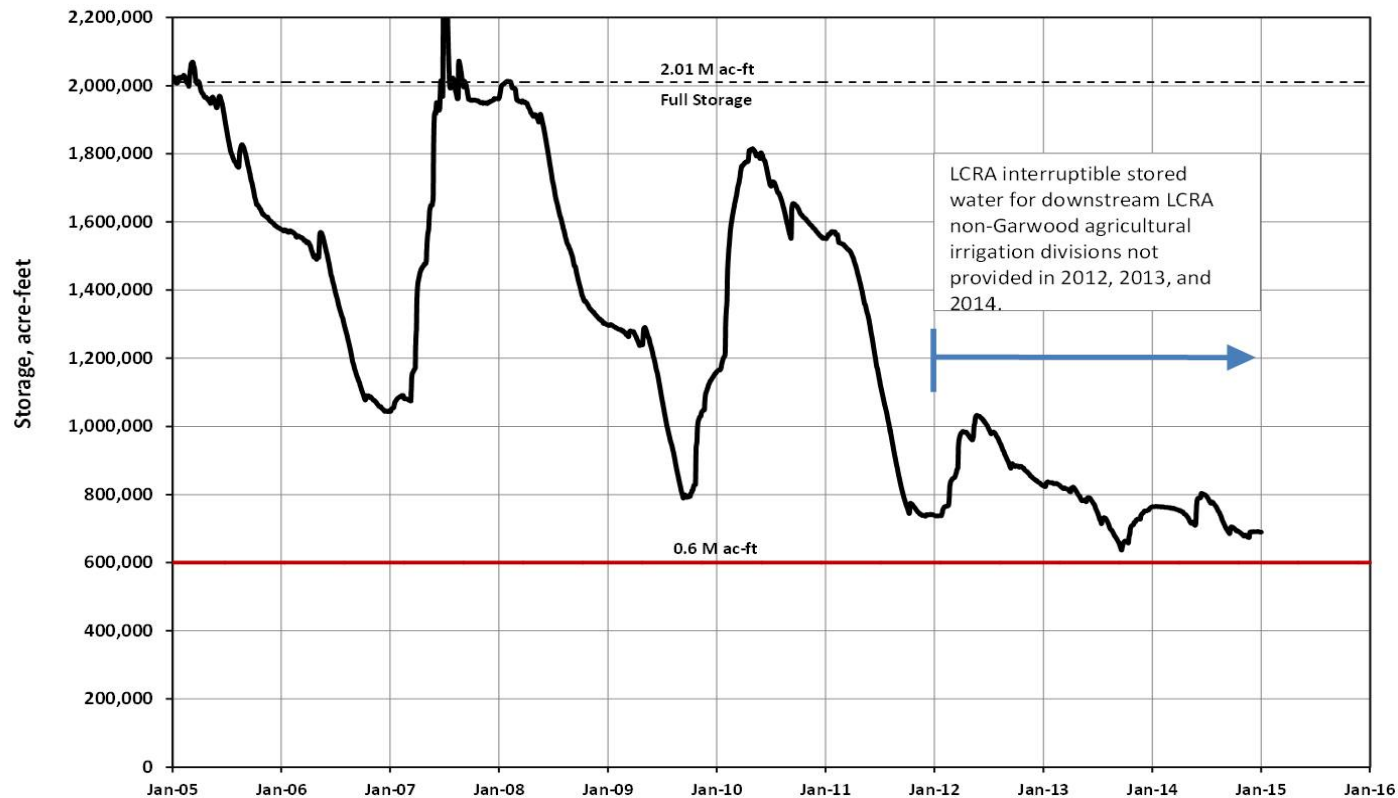
2014 was the 2<sup>nd</sup> driest year since the lakes were built, second to 2011

### Cumulative Inflow to Lakes Buchanan and Travis



## Combined Storage of Lakes Buchanan and Travis

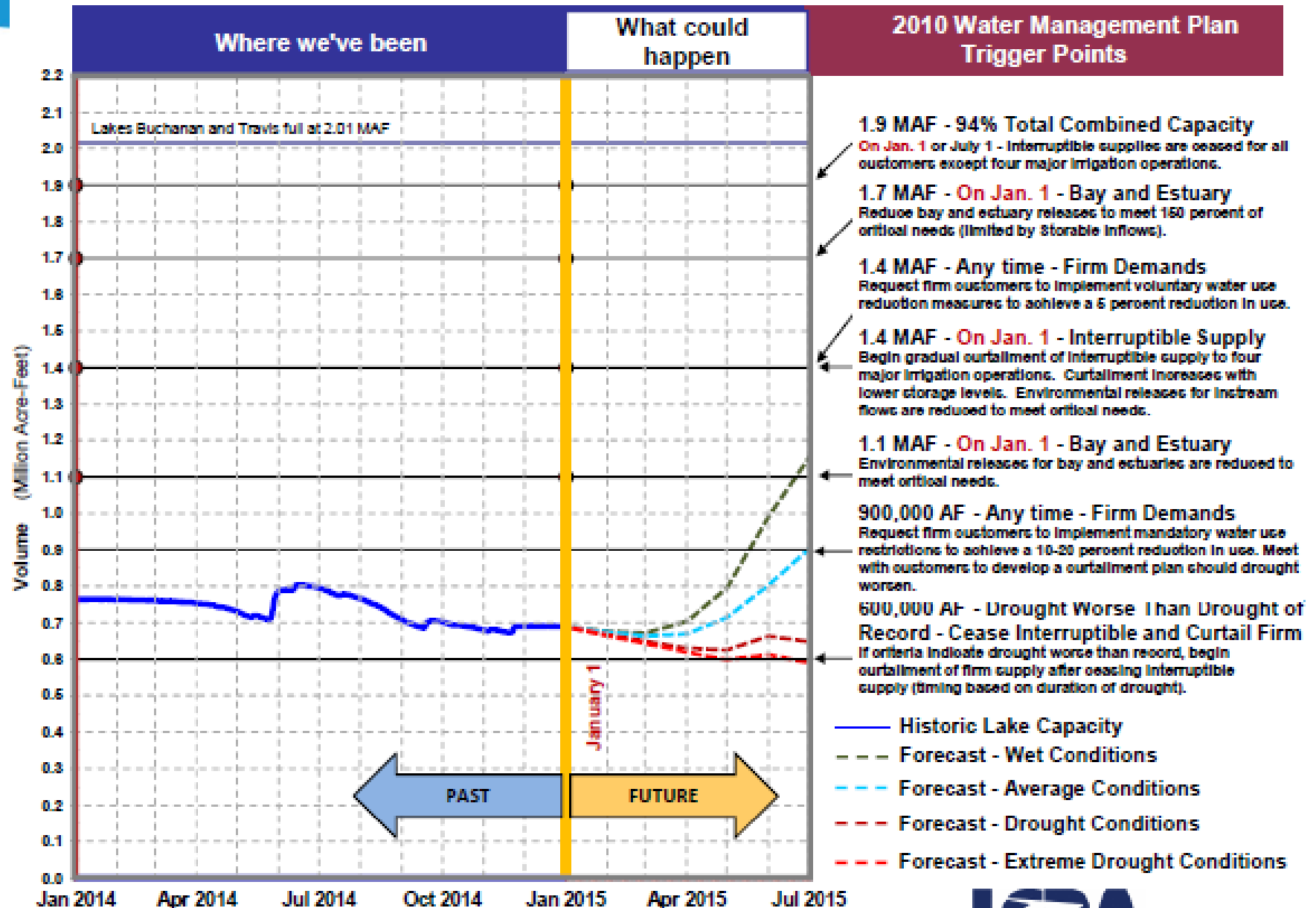
January 1, 2005 through January 1, 2015



## Recent March 1 Storage Volumes Lakes Travis and Buchanan

| Year | Annual Total in acre-feet |
|------|---------------------------|
| 2010 | 1,652,638                 |
| 2011 | 1,534,658                 |
| 2012 | 846,820                   |
| 2013 | 822,364                   |
| 2014 | 761,448                   |

# Highland Lakes Storage \*



Note: MAF equals 1 Million Acre-Feet

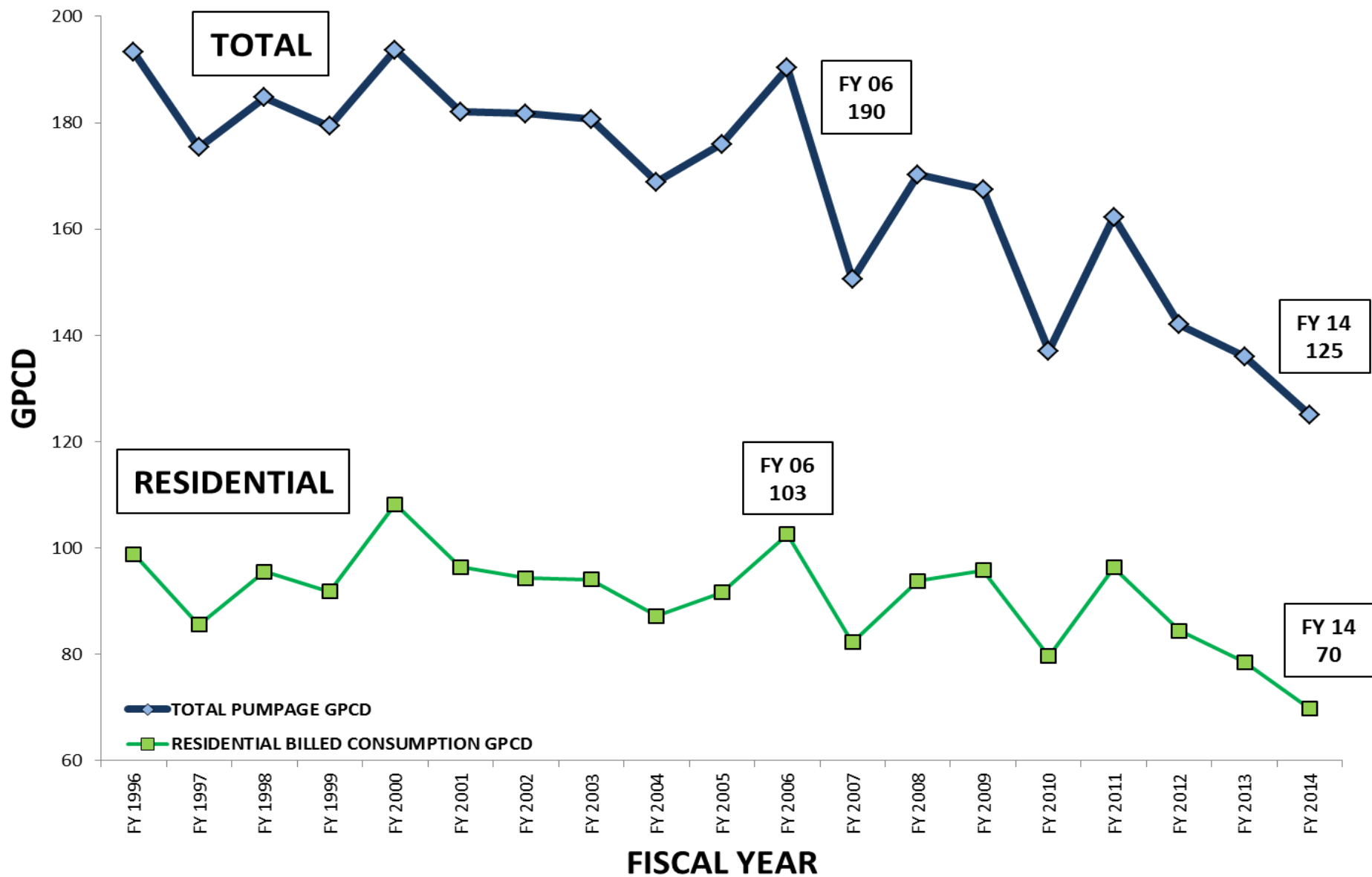
One Acre-Foot (a-f) equals 325,851 gallons.

Date: January 1, 2015

\* Projections assume that TCEQ will approve Emergency Orders in 2015 that are similar to the Emergency Orders approved by TCEQ in 2014, which suspended releases of interruptible stored water for customers in the Gulf Coast, Lakeside and Pierce Ranch irrigation operations through the 2014 irrigation season.



## WATER USE - GALLONS PER CAPITA PER DAY (GPCD)



# Austin Municipal Diversions

- Calendar Year 2014: ~137,500 AF
- Most recent 5-year average: ~149,000 AF

| Year | Total (AF) |
|------|------------|
| 2008 | 170,000    |
| 2009 | 156,000    |
| 2010 | 145,000    |
| 2011 | 168,000    |
| 2012 | 151,000    |
| 2013 | 142,000    |
| 2014 | 137,500    |

1 acre-ft. = 325,851 gal.

# Drought Planning

- Multi-faceted response:
  - Staged drought restrictions and water conservation
  - Engage in LCRA Water Management Plan revisions and other related processes
  - Implement Austin Water Resource Planning Task Force strategy options:
    - Demand-side management and water conservation strategies
    - River and reservoir system operational enhancements
    - System augmentation projects
  - Develop Integrated Water Resources Plan (IWRP)
    - To include longer-range scenario-based planning for demand management and supply-side options
    - Supply diversification

# Water Supply Responses

- Best Practice Conservation Programs
- Deep Drought Restrictions
  - Mandatory 1 day per week watering restrictions for 3+ years
  - Thousands of warning and fines
- Acceleration of Reuse Program
- TCEQ-Approved Emergency Order Cutoffs of LCRA Interruptible Customers

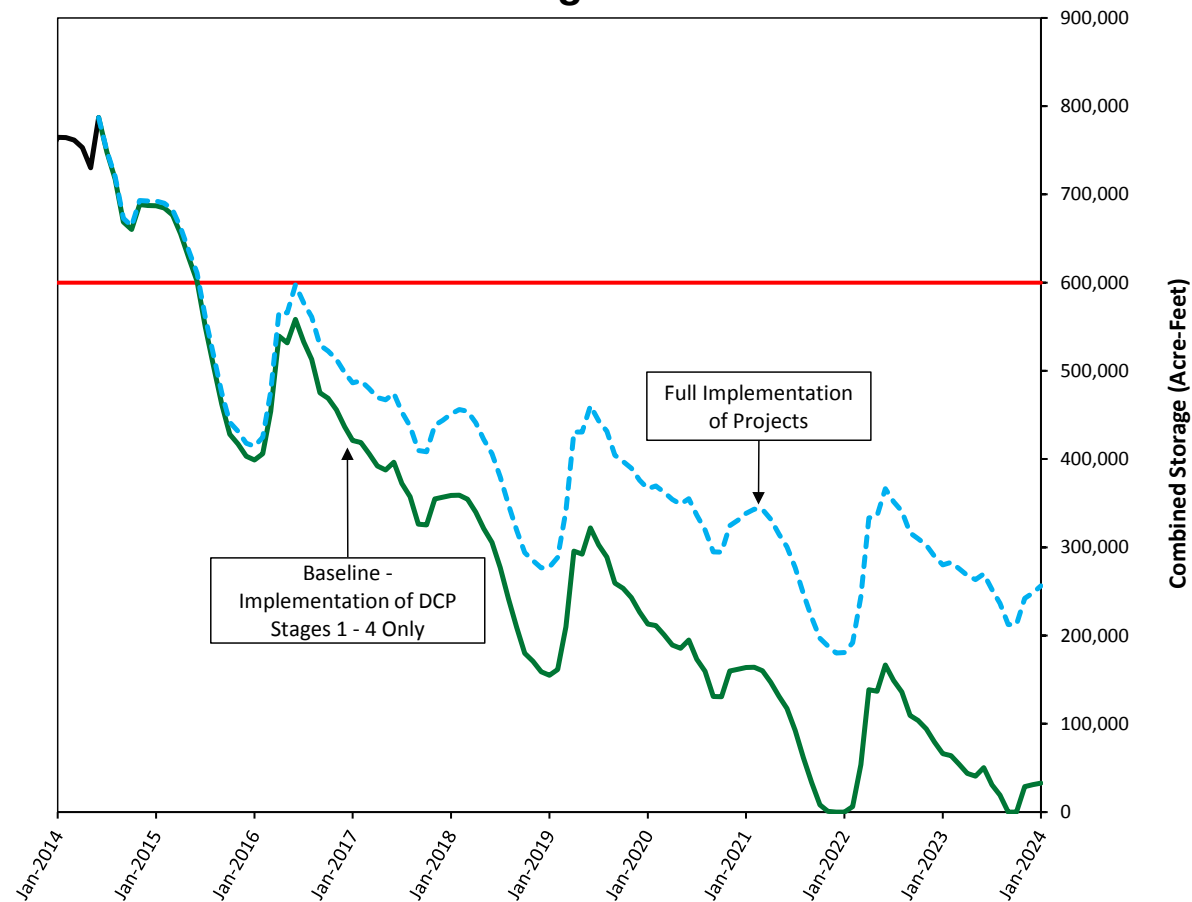
# Projects Planned/Under Evaluation

- Stage 3 & 4 Water Restrictions
  - Drop water use below winter use
- Enhanced rainwater capture & graywater programs
- Projects to Optimize Dam Operations
- Enhanced Local Storage
  - Conversion of Walter E. Long (Decker) Lake to off-channel reservoir
  - Varying level of Lake Austin during non-recreational season
- Indirect Potable Reuse Projects

# Austin Water Integrated Water Planning

Key Objective:  
Integrated with demand-side management, identify water source strategies required to provide a stable water supply through conditions that are persistently drier than those experienced in the past.

Modeled Water Supply Under Persistence of Extreme Drought Conditions



# Region K Planning Process Is Underway

- Austin is a participant in the Lower Colorado Regional Water Planning Group (Region K) planning process
- Process is administered by the Texas Water Development Board (TWDB)
- Process is underway to develop plan including water management strategy evaluation
- Initially Prepared Plans (IPPs) are due to TWDB by May

# Questions?