



Austin Water Utility 140 Gallons per Capita per Day (GPCD) Conservation Plan



January 27, 2011



Presentation Outline

- **Purpose, Background & Context**
- **Overview of the 140 Plan**
- **Focus and Next Steps**



Purpose

- **May 2010 – City Council accepted the Citizen’s Water Conservation Implementation Task Force (CWCITF) report and directed AWU to develop an action plan to reduce water use to an average of 140 GPCD by 2020.**

- **The resolution calls for the plan to include:**
 - Technical and cost-benefit evaluations of recommendations
 - A 10 year conservation action plan that incorporates educational programs, marketing & outreach and cost beneficial strategies
 - An implementation schedule, responsibility and estimated water savings and costs
 - An analysis to assist City Council in assessing whether the goal is achievable
 - Report back to City Council
 - Written report with plan details
 - Presentation overview

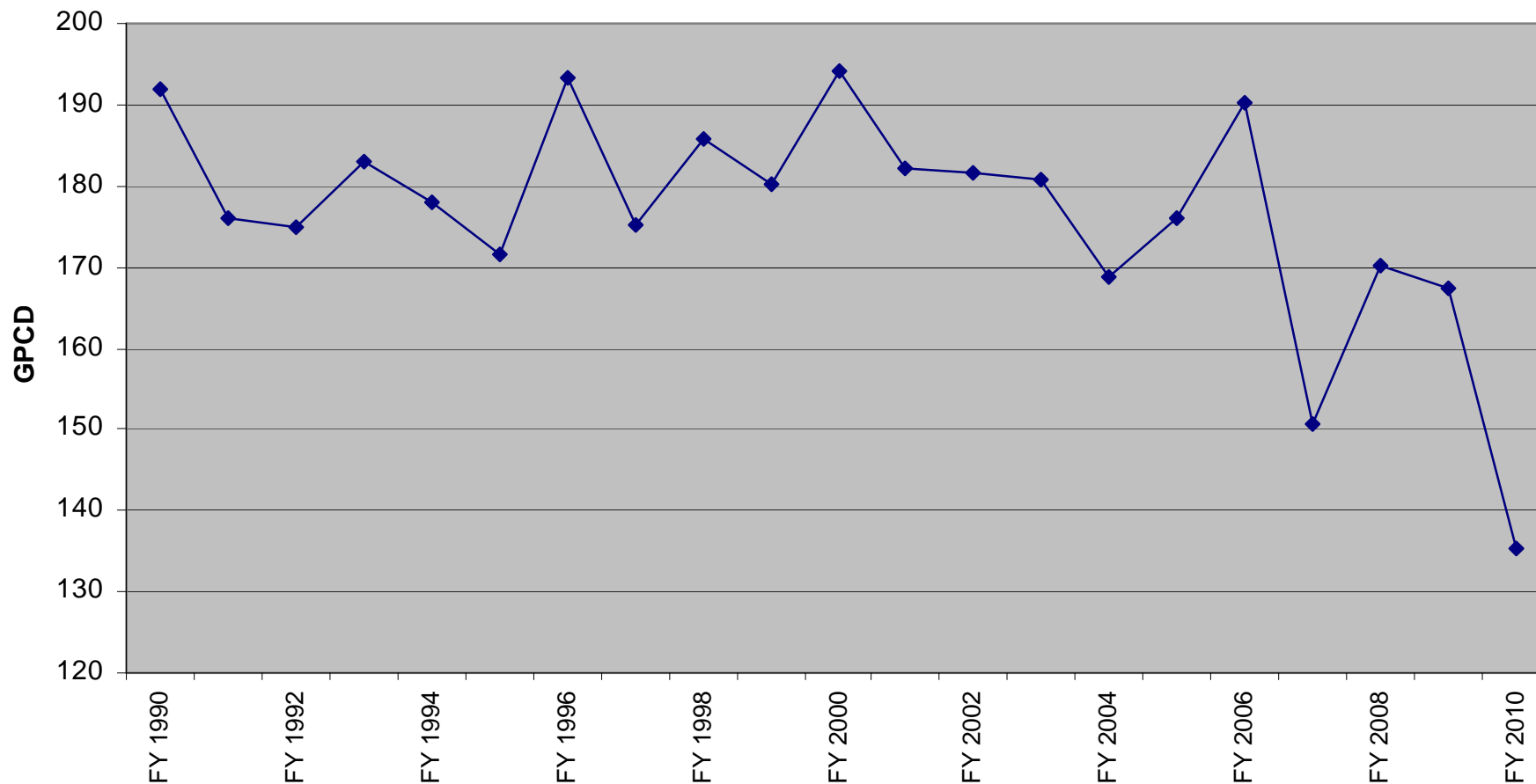


Austin Conservation History

- **Strong customer incentives in 1990s and 2000s**
 - Implementation began in 2007
- **Aggressive conservation rates since 1994**
- **2006 Council goal to reduce peak use 1% per year over 10 years**
 - Implementation began in 2007
 - Mandatory watering restrictions
 - Reclaimed water system investments
 - Plumbing Code changes
 - Implemented 5th tier for residential high users in 2010



GPCD from FY 1990 to 2010



140 Plan Background

- **Where does the 140 number come from?**
 - 2004 Texas Water Development Board (TWDB) report recommended Best Management Practices (BMPs)
 - Report suggests goal to reduce water use by at least 1% annually until reaching 140 gallons per capita per day
 - TWDB recommended using GPCD to measure internal progress, not to compare between cities
- **Austin's Plan and TWDB Recommendations**
 - Through historical and current conservation programs, Austin has addressed 21 of 22 TWDB BMPs
 - The 140 Plan reduces water use by 1.52% per year average
- **Pending legislation (SB 181) recommends moving to uniform GPCD reporting**

140 Plan Overview

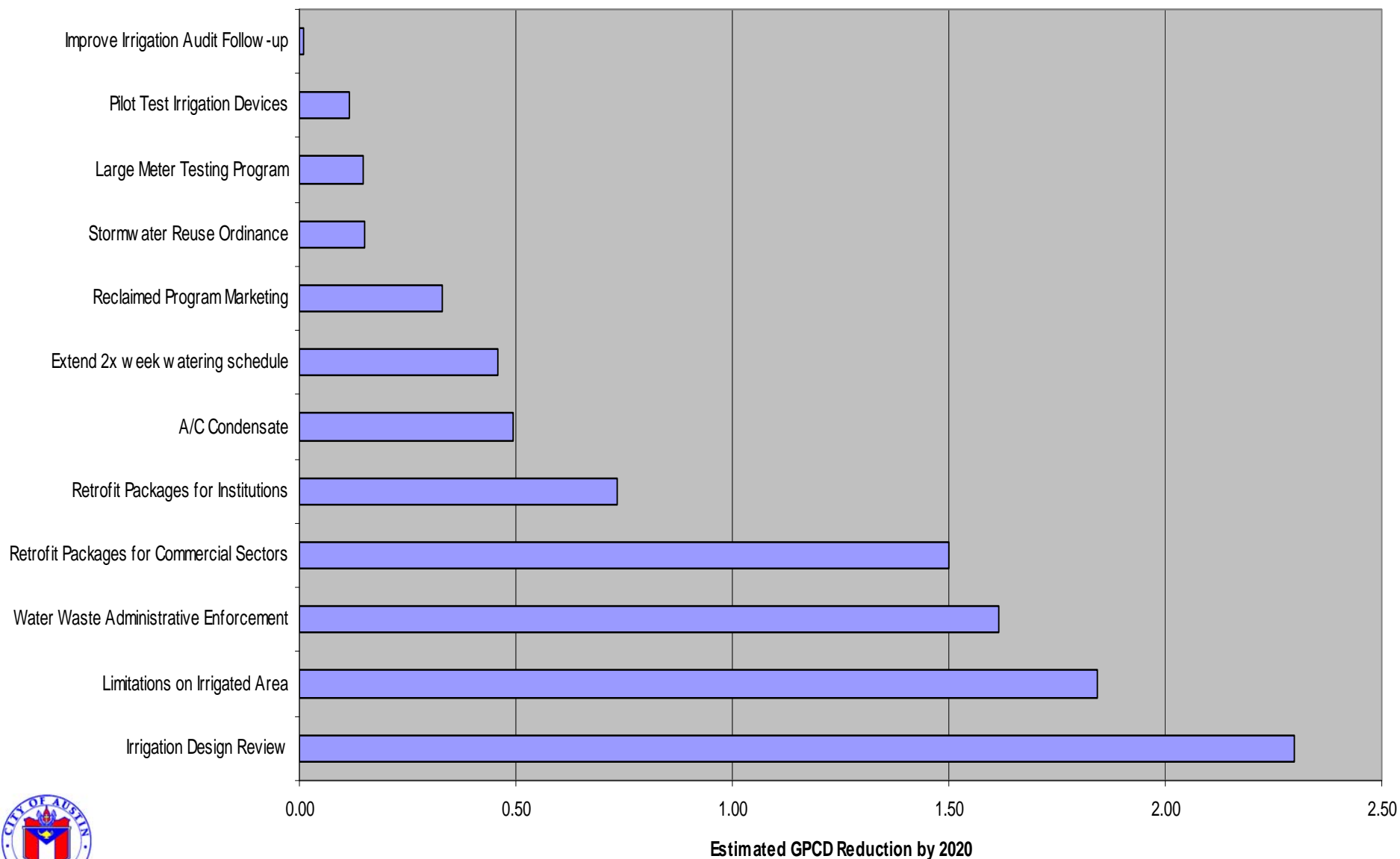
Developing the 140 Plan

- **Staff analyzed over 100 recommendations from the CWCITF**
 - Quantified savings and costs using research from other cities, AWWA, Alliance for Water Efficiency, Water Research Foundation
- **Established six overarching program goals used in selecting strategies**
 - Reach 140 GPCD goal by 2020
 - Reduce peak demand
 - Pursue cost-effective strategies
 - Ensure conservation reaches all customer sectors
 - Ensure consumer awareness of conservation
 - Promote innovation in water conservation

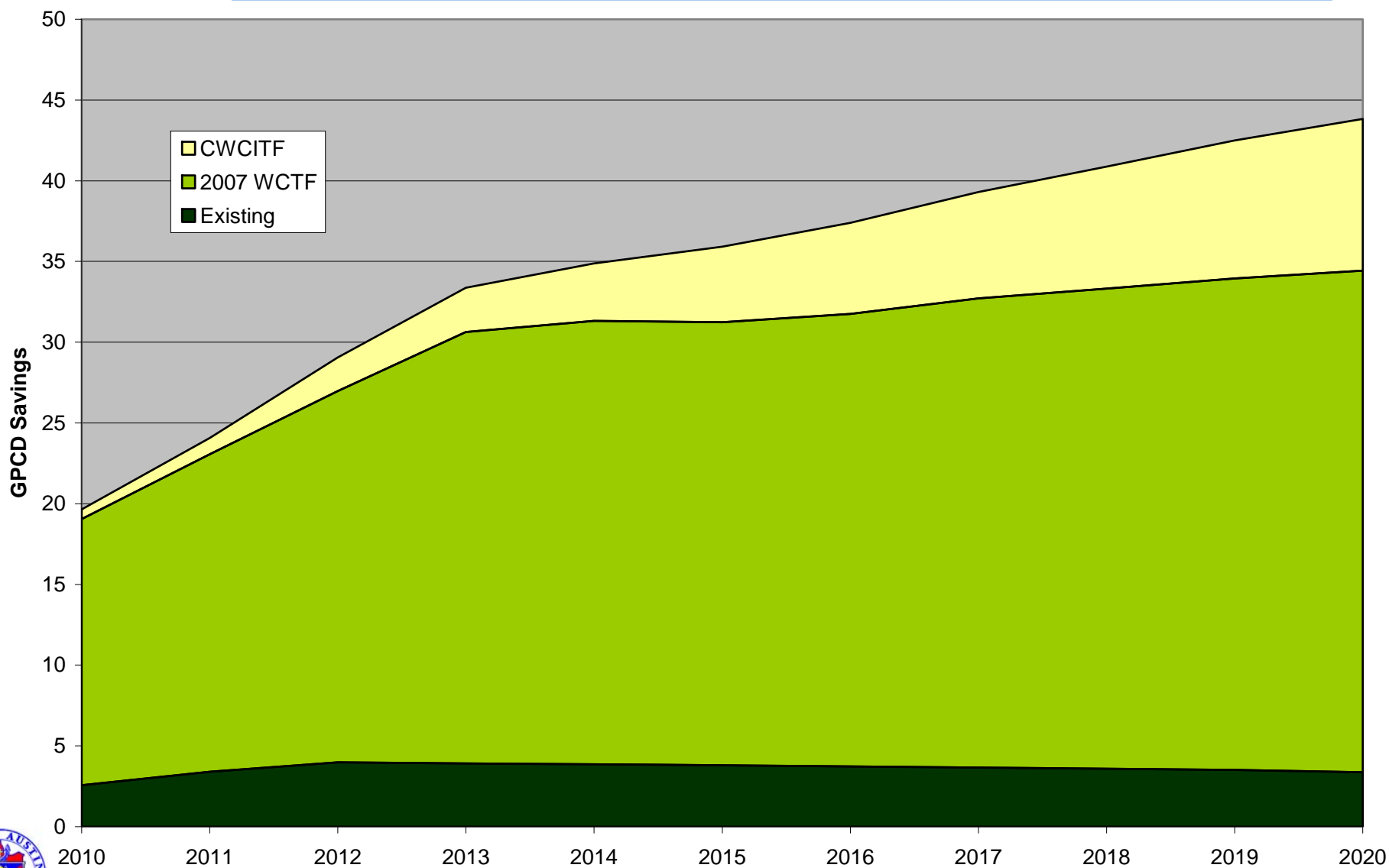
Developing the 140 Plan

- **Staff screened CWCITF potential measures using a tool developed by the Alliance for Water Efficiency**
- **Selected strategies showed *either* positive benefit-cost ratio *or* complemented one of the other program goals.**
- **After screening, final package of strategies analyzed for 10-year financial impact**

New Conservation Strategies



Projected Savings by Task Force



Easy-Moderate Implementation

- **Shift some funding from incentives to water waste enforcement**
- **Extend mandatory watering schedule to year-round for residential customers**
- **Market to customers along existing reclaimed lines**
- **Pursue contracts to market retrofit packages to commercial and institutional sectors**
- **Transition to administrative enforcement of water waste fines**
- **Implement marketing & education strategies**



Additional Stakeholder Input Needed

- **Impose limits on irrigated area for residential and commercial customers**
- **Implement irrigation design plan review**
- **Implement conservation rates for commercial & multifamily customers**



CWCITF Recommendation Examples

- **Residential Customers**

- Limit new permanent irrigation systems to no more than 2.5 times building footprint
- Require design plan review of new systems
- Would apply to both new development and existing properties installing a new system or major modifications to existing system
- Sample ratios:
 - Mueller development ~ 1.6 ratio of landscape to footprint
 - Avery Ranch ~ 2.9 ratio of landscape to footprint
 - Circle C ~ 3.4 ratio of landscape to footprint

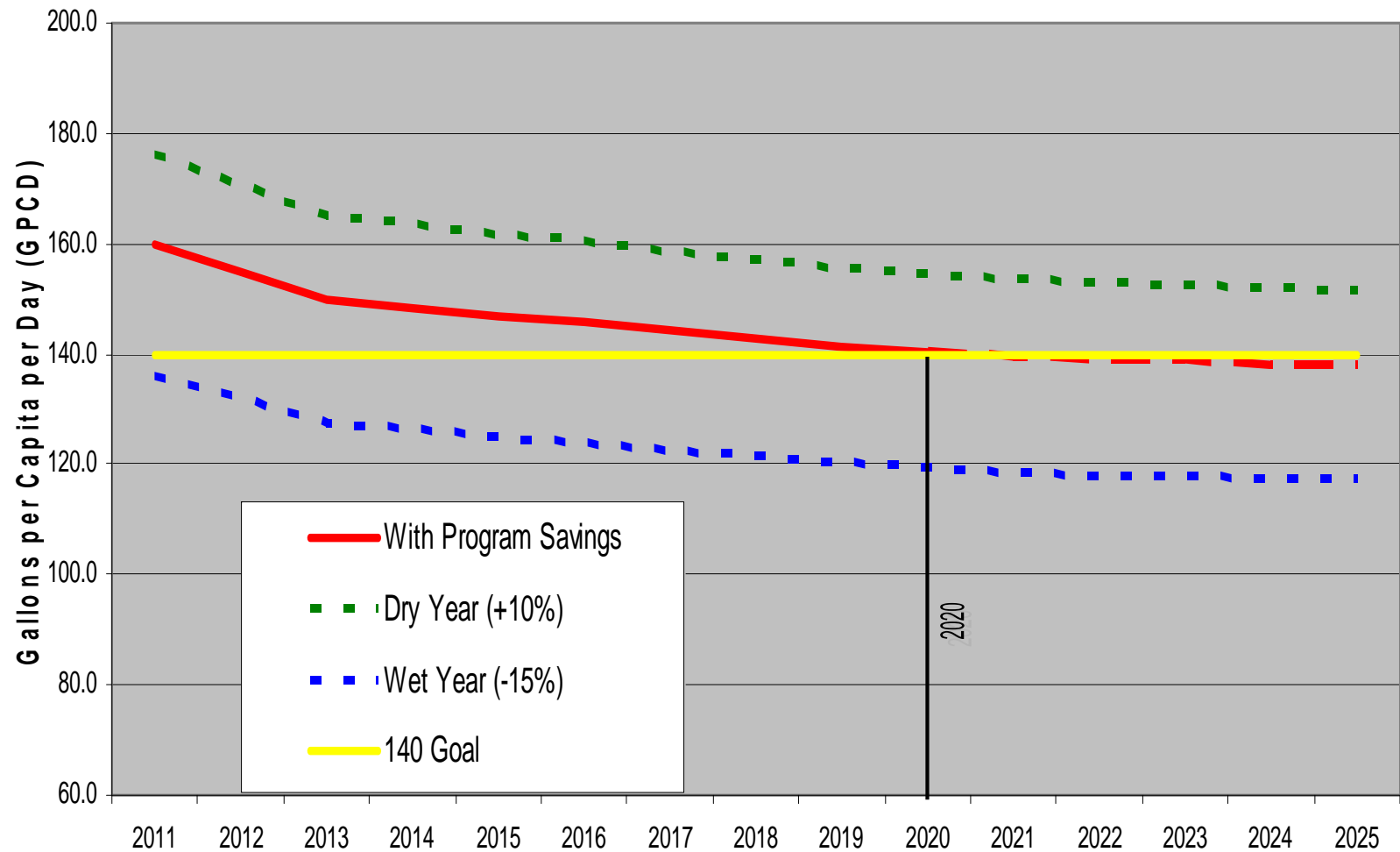
- **Commercial & Multifamily Customers**

- Limit new permanent irrigation systems to no more than 1.5 times the required landscape area
- Require design plan review of new systems



140 GPCD Plan

Average Per Capita Demands



Financial Impact



140 GPCD Plan Financial Impacts

- **Total Water Rate Impact of Achieving 140 GPCD by 2020** **25% to 35%**
 - In 2020, revenue will be reduced by approximately \$100 million on an annual basis
- **Less: Rate Impacts Included In Previous Forecast** **7% to 11%**
 - Reclaimed Water
 - Other Conservation Programs
- **Net Additional Water Rate Increase Through 2020** **18% to 24%**
- **Average Residential Customer Water Bill Impact by 2020** **\$9 to \$10 /mo**



140 GPCD Plan Financial Impacts

- **Possible strategies for addressing revenue loss associated with 140 plan:**
 - Increase rates
 - Operating Cost reductions/Service reductions
 - Create new fees (“Conservation Rider”) to offset lost revenue
 - Increase development and other fees
- **Possible strategies for addressing increased revenue volatility associated with conservation**
 - Higher reserves
 - Higher minimum charge
 - Increase blocks 1 & 2 more than 3-5
 - Mid-Year / Emergency rate changes during periods of very low usage
 - Add a variable component to rates that could be adjusted periodically as system-wide usage increases or decreases

Focus and Next Steps

Summary

- **The report provided includes the detail on the items called for in the Council Resolution:**
 - Technical and cost-benefit evaluations for Task Force recommendations
 - A 10 year conservation action plan that incorporates educational programs, marketing & outreach and cost beneficial strategies
 - An implementation schedule, responsibility and estimated water savings and costs
 - An analysis to assist City Council in assessing whether the goal is achievable



Next Steps

- **Continue implementation of 2007 Task Force Strategies**
- **Closely monitor GPCD Legislation**
- **Continue involvement in LCRA Water Management Planning Process**

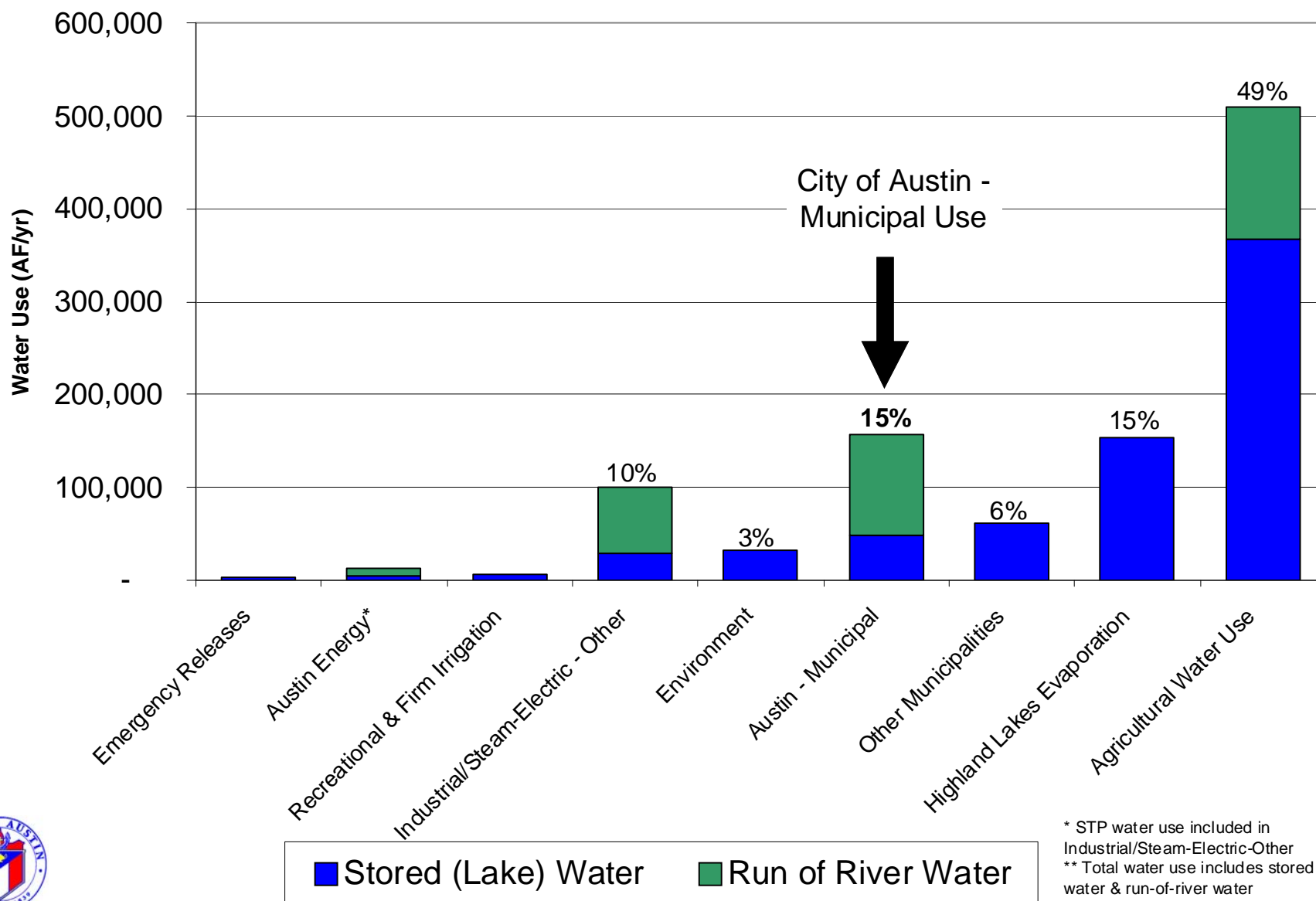


LCRA Water Management Plan

- **Austin's water supply comes from a combination of:**
 - State-granted surface water rights (run-of-river)
 - Water supply contracts with LCRA (providing firm back-up to ROR rights)
- **Lower Colorado River Authority (LCRA) operates and manages the Highland Lakes system for water supply, flood control, and other purposes**
- **LCRA's State-approved Water Management Plan (WMP):**
 - Guides Highland Lakes' water management for all LCRA customers who use stored water
 - Sets out decision making process for release of water downstream for agricultural uses, primarily rice irrigation, based on the combined storage of Lakes Buchanan and Travis
 - Includes drought management plan and other components



2009 Highland Lakes and Run-of-River Water Use Including Lake Evaporation



Water Conservation and Lake Levels

- **Under the current WMP:**
 - On the supply-side, water that Austin conserves becomes available for other uses and does not necessarily remain in the Highland Lakes
 - The fuller the lakes are at the beginning of the year the greater the likelihood that more water will be available for “interruptible” agricultural water releases
 - “Open supply” when combined storage is above 1.4 M AF/yr on January 1st each year
- **WMP revision process is underway with the City of Austin involved as a firm water stakeholder**
 - Revisions anticipated to be submitted to TCEQ by late Fall 2012, TCEQ will then review and conduct formal public input process
 - Key outcome is to strengthen the link between conservation and lake levels



Next Steps

- Continue implementation of 2007 Task Force Strategies
- Closely monitor GPCD Legislation
- Continue involvement in LCRA Water Management Planning Process
- **Future Council Work Session for further discussion**



Questions