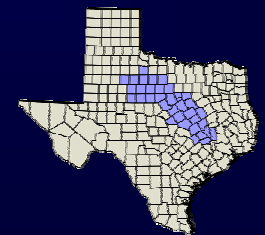


Agenda Item 6.9A
Adopted Methodology for Considering
Municipal Conservation as Water
Management Strategy

February 22-23, 2005



Conservation Considerations

- ✓ TWDB demand projections already include some level of conservation – any additional conservation will be considered as “advanced” conservation
- ✓ RWPGs must consider conservation **first** for any WUG with **needs**
- ✓ Brazos G RWPG has defined “**needs**” as occurring when supply less than **105% of demand**, and will plan to meet the first 5% with conservation if possible
- ✓ Task force recommendation for target GPCD is **140 GPCD**

Background

- ✓ **August 12, 2004 – Methodology for developing municipal water conservation strategies presented to BGRWPG**

- ✓ **August 12th – September 15th**
 - **Revised methodology based on new information from TWDB**
 - **Researched additional Best Management Practices (BMPs)**
 - ✓ **Included more extensive list of indoor and/or outdoor BMPs**
 - ✓ **Identified costs and water savings**

- ✓ **September 15th: **Adopted** refined approach to consider municipal water conservation as water management strategy for water user groups (WUGs) with needs**

TWDB GPCD Projections (through Year 2060)

- ✓ **Current TWDB demand projections reflect 1991 State Water-Efficient Plumbing Act:**
 - **100% replacement by Year 2045 (at rate of 2% per year)**
 - **100% of new construction contains water-efficient plumbing fixtures**
- ✓ **For all 221 municipal WUGs in Brazos G Region, this translates to a “built-in” GPCD reduction of 2 to 13 gpcd (average 7 gpcd decrease) from Year 2010 to 2060**

Consideration of Additional BMPs

- ✓ **Indoor water conservation BMPs**
 - **Clothes washer rebate (GDS Associates)**
 - **Rainwater harvesting (GDS Associates)**
 - **Rain barrels (GDS Associates)**
 - **Showerhead and Toilet Flapper Retrofit (Task Force BMP Guide)**
 - **Water Efficient Plumbing Fixtures (TCEQ)**
- ✓ **Outdoor water conservation BMPs**
 - **Landscape Conservation and Irrigation (Task Force BMP Guide)**
- ✓ **Both Indoor/Outdoor water conservation BMPs**
 - **Unaccounted for losses (TCEQ)**
 - **Seasonal water use reduction (TCEQ)**
 - **Public education programs**

Challenge: Costs and savings (when available) can be difficult to quantify and apply for regional water planning

Adopted Municipal Conservation BMPs for WUGs with Needs

Conservation BMPs	Water Savings (gpcd)	Estimated Cost (\$ per acft water saved)
Advanced Conservation -Toilet Retrofit -Showerhead/Aerators -Irrigation Audit	7	\$325-385
Landscape Irrigation	11	\$400
Public Education Programs	3	N/A
Total	21	\$325- \$400

Adopted Approach for Municipal Water Conservation

- ✓ For WUGs with needs (anytime during 2000-2060) and usage less than 140 gpcd
 - Adopt current TWDB projections (assumes 100% replacement by 2045)
- ✓ For WUGs with needs (anytime during 2000-2060) and usage greater than 140 gpcd
 - Reduce 2010 TWDB projections by **21 gpcd** by 2020
 - Maintain constant GPCD from 2020 through 2060
 - Includes projected conservation + additional conservation
 - Includes “accelerated” effects of 1991 Plumbing Act
- ✓ Reason: Simplify conservation approach and address both short term & long term needs

Questions?
