Potential Effectiveness of Demand-side Strategies

Agenda Item 6

Example Water Conservation and Efficiency Strategies

Agricultural Portfolio of Water Efficiency Strategies
Water Audits and Nozzle Retrofits
Irrigation Scheduling
Soil Management
Crop Variety, Crop Type, and Crop Conversions
Irrigation Equipment Changes

Municipal Portfolio of Water Conservation and Efficiency Strategies	
Conservation Pricing Structures	Public Education of Water Conservation
Toilet Rebate Program	Residential Water Audits
Landscape Irrigation Program and Codes	Water Efficiency Standards for New Construction
Leak Detection and Water Loss Control Program	Reclaimed Water Programs
Car Wash Recycling Ordinances	Time-of-Day Watering Limits
Water Waste Ordinance	

Existing Demand-Side Strategies in the Broad Basin

Agriculture

- Cover crops, intercropping, drip irrigation
- Seed coating of herbicide/insecticide to reduce irrigation
- Water audits

Energy/Industrial

- Onsite power generation – more efficient energy uses lead to reduced water demand

Public Water Supply

- Water Loss Audits/Leak detection
- Public outreach – conservation, citizen academies, social media, smart irrigation,
- Conservation-based pricing structures
- Install second meter for irrigation water
  - Utility can manage irrigation separately in drought
  - Easier identification of leak sources

Existing Demand-side Strategies that Could be Expanded

- Update drought management plans
- Improve funding for agricultural conservation measures
- Review utility ordinances to ensure they have authority to restrict usage when necessary (in Catawba this was an issue)
- Regionalized public education
- Improve consistency with public messaging (potential discrepancy in conservation requirements between neighboring areas)
- Increased water audits (for PWS and Ag) and identification of funding sources to address results

What Effect to Demand Side Reductions of 10, 15 and 20 Percent Have on Reducing Projected Shortages When Applied to Public Water Supply Withdrawals?

2070 High Demand Scenario

Water User	Frequency of Shortage				Maximum Shortage (MGD)			
	2070 High Demand	10% Demand Reduction	15% Demand Reduction	20% Demand Reduction	2070 High Demand	10% Demand Reduction	15% Demand Reduction	20% Demand Reduction
Gaffney	1.1%	1.0%	1.0%	0.8%	27.8	24.6	22.2	20.7
Spartanburg	0.4%	0.1%	0.1%	0.0%	36.9	19.8	4.8	0.0
SJWD	0.6%	0.4%	0.1%	0.0%	18.3	9.9	5.8	0.0
Greer	7.1%	5.4%	4.3%	3.4%	17.0	14.4	13.1	11.8