

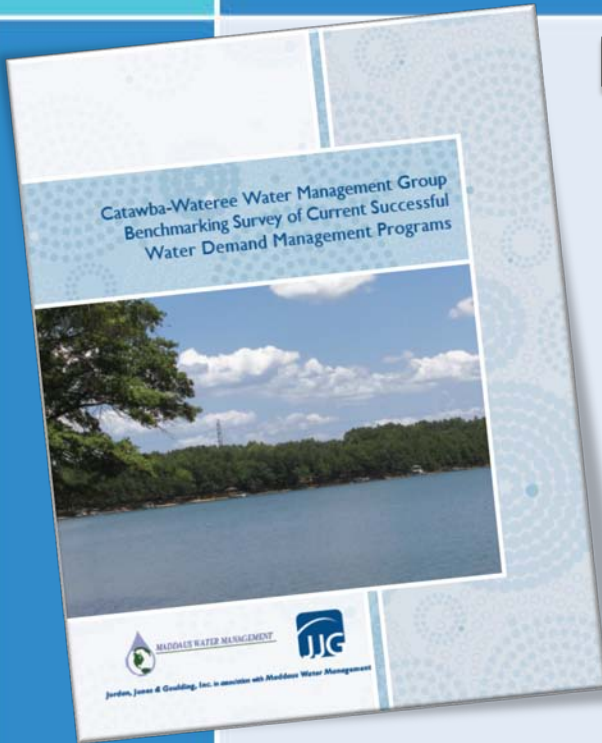
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watersmartinnovations.com



Benchmarking Survey of Current Successful U.S. Water Demand Management Programs

Water Smart Innovations
Conference
October 6, 2010



JIG, a Jacobs Company
Maddaus Water Management
Catawba-Wateree Water Management Group

Agenda

- Project Background
- Project Methodology
- Survey Highlights
- Questions and Answers

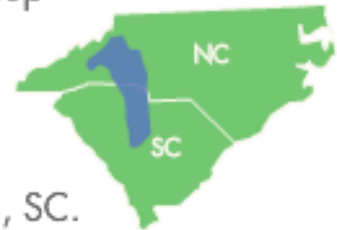


Project Background: Catawba-Wateree Water Management Group

- Catawba-Wateree Water Management Group (WMG) established in 2007
- Member Service Areas are located in North and South Carolina
- Five-Year Plan areas of focus:
 - Demand-Side Norms, Trends, and Opportunities
 - Supply-Side Opportunities
 - Drought Preparation and Management



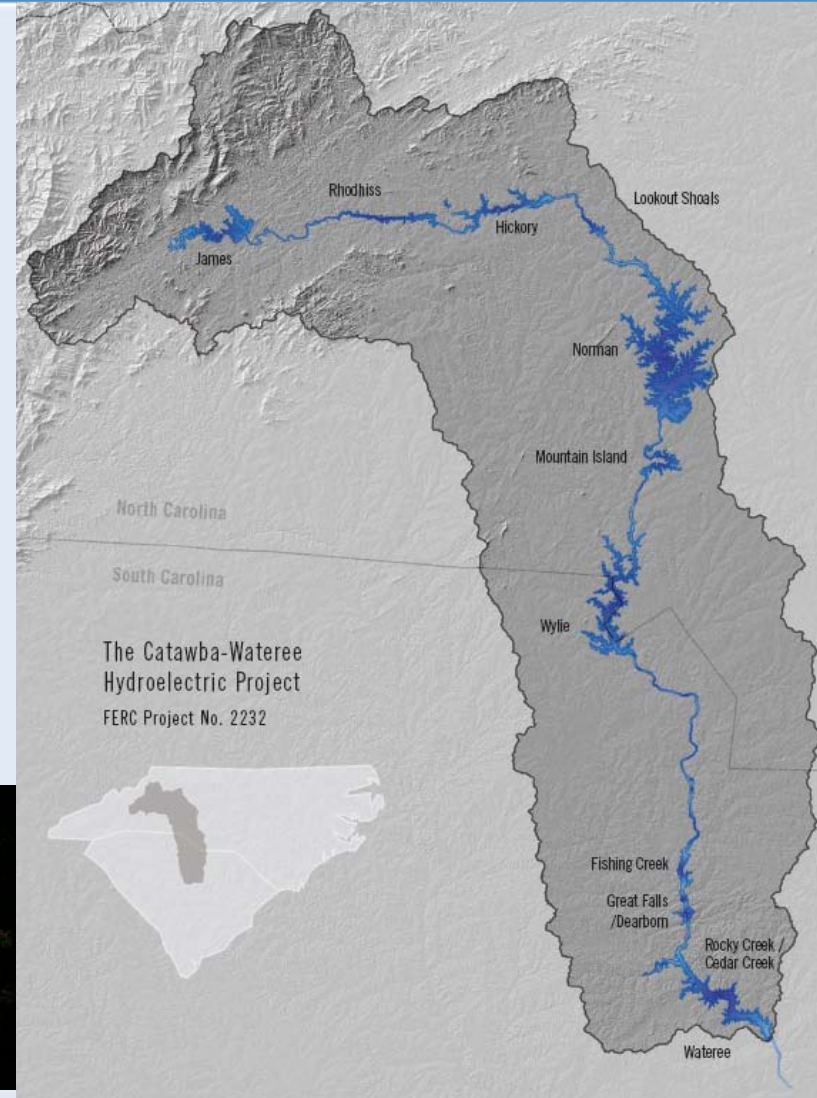
Catawba-Wateree Water Management Group serves 4,750 square miles that drain into the Catawba River, providing water for neighbors from Morganton, NC to Camden, SC.



<http://www.catawbawatereewmg.org/>

Project Background: Catawba-Wateree WMG Members

- 18 members pay annual dues
 - 17 North Carolina & South Carolina Public Water Utilities
 - Duke Energy Carolinas – operates 11 reservoirs under hydropower license from Federal Energy Regulatory Commission (FERC)



Project Background: Study Purpose

- Purpose of the study:
 - WMG 5-year plan includes a goal to develop strategies and identify opportunities to reduce per capita water use.
 - Survey goal: collect information on existing demand management programs and identify aspects of the programs that have been most and least successful
 - Benchmarking current conservation efforts in the United States was one step towards creating a regional conservation program for their area.
 - Some WMG members have conservation programs, but this new program would focus on regional efforts

Project Methodology: Survey Instrument

- Survey Overview
 - 7 main questions; some with up to 14 parts
 - Water sources, service area population, water production, conservation program details
- Sample Conservation Questions
 - Why do they have a water conservation program?
 - What are their savings goals and timeline?
 - What programs do they offer?
 - Which programs are most popular?
 - How do they implement them?
 - Number of conservation staff?
 - Annual program budget?

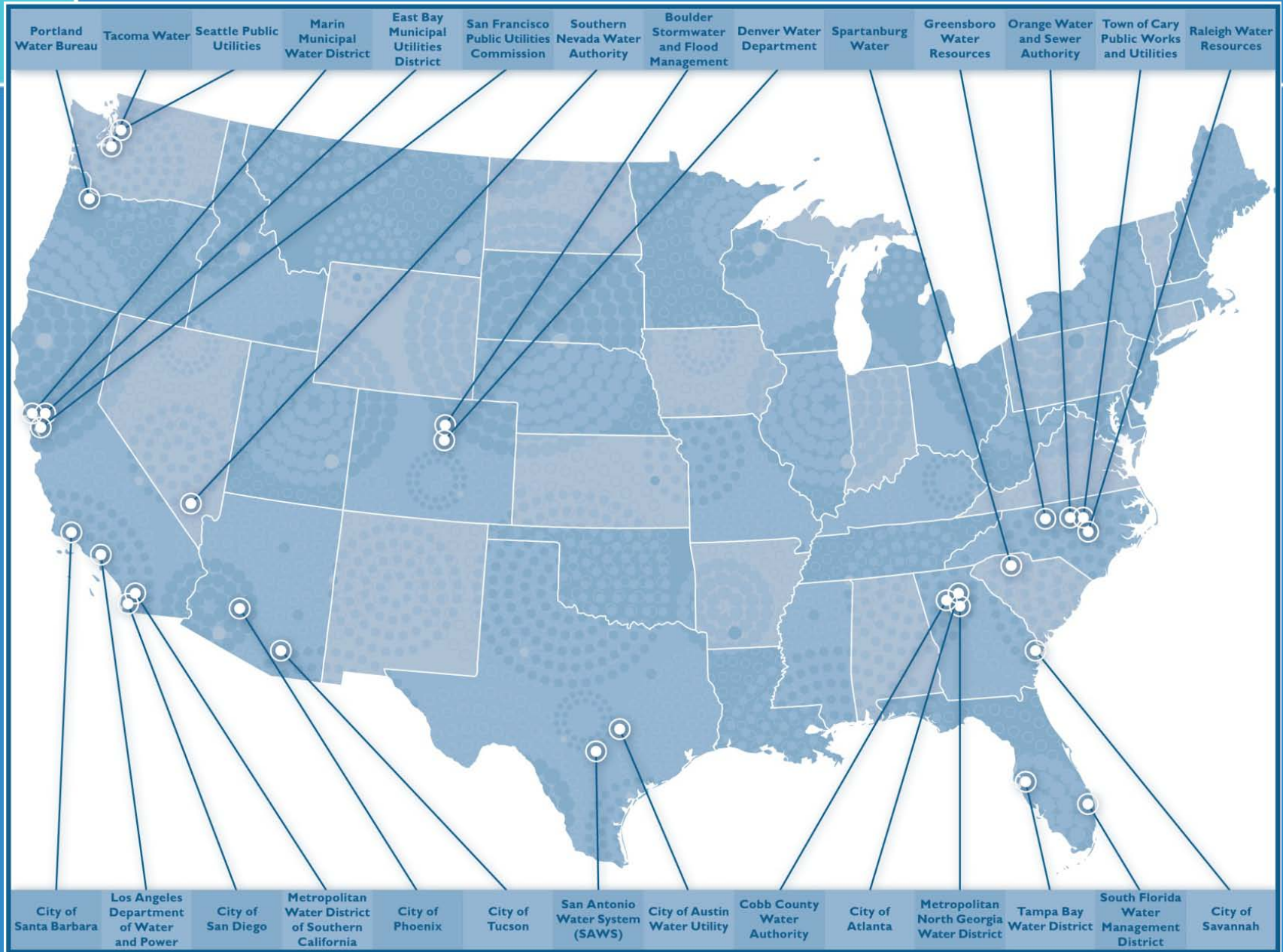


Project Methodology: Survey Participation

- 28 Leaders in Demand Management across U.S.
 - 2 regional government agencies, 2 wholesalers, 24 retailers
 - Participants located in 11 different states
 - Full participation from 15 agencies (54%)
 - Partial participation from 13 agencies (46%)
- 18 Catawba-Wateree WMG Members
 - Full participation from 13 members (72%)



Project Methodology: 28 Agencies



Survey Highlights: Public Education

- 96% of surveyed agencies had a public education program
- Program components included
 - Online conservation tips
 - Water festivals
 - Public classes and workshops
 - Lesson plans for teachers
 - Contests



Survey Highlights: Outdoor Programs

- 89% of surveyed agencies had outdoor programs
- Popular Audits
 - Residential
 - Commercial
 - High Water Users
- Landscape Programs
 - Xeriscaping
 - Demonstration Gardens
 - Irrigation System Rebates



Survey Highlights: Incentive Programs

- Most common rebates
 - 17 Residential Toilet (57%)
 - 12 Residential Clothes Washer (43%)
 - 6 Commercial Toilet/Urinal (21%)
 - 4 Commercial Clothes Washer (14%)
- Other programs
 - Shower head/ faucet aerators
 - Irrigation system rebates



Case Study – Atlanta Metro Area

(Initial Conservation Planning Study 2003, updated 2009)

- 15 counties
- 25 agencies
- 3.5 million people
- 652 MGD* in 2001
- Explosive population growth
~7.5 million people by 2035
- 1,011 MGD* in 2035 with
conservation
- 55% increase in 34 years

(approx. 1-2% per year)



(www.northgeorgiawater.com)

* gross withdrawals



Metropolitan North Georgia Water Planning District

Programs	Residential – Toilet rebates (1.6 gpf), water audits, retrofit kits, multifamily submetering, conservation pricing Commercial –Audits, pre-rinse spray valve promotion Landscape – Water conservation workshops, rain sensors required
Conservation Staff	3 Full-time Member agencies also have staff
Funding	2009 budget = \$20,000 (for public education only) District promotes, individual agencies pay for customer programs in their service area
Main Goal	Reduce gross withdrawals 20% by 2030

City of Seattle & Saving Water Partnership

- Seattle Area, Washington
- City serves 25 agencies and 126 MGD
 - Supply 1.5 million people
- Conservation partnership
 - 13 agencies
- Well established
- Convenient web site
- Successfully reduced average and peak demand



(www.savingwater.org)



Saving Water Partnership
A service of your local water utility

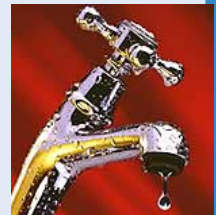
Seattle Public Utilities

Programs	Residential – Washers Multifamily – Toilet rebates, Washers Commercial – Toilet rebates, Urinals, Washers, Audits (very successful), Medical Equipment, Ice machines, 50% of water savings projects Landscape – Rain sensors, Smart controllers, Classes
Conservation Staff	5.5 Full-time Staff assigned by specialty: residential, landscape, commercial
Funding	2008 budget = \$2.4 million All funding from rates! Partner with City Seattle Light – pay half washer rebates
Main Goal	Annual 1% reduction in gross withdrawal (2000-2010, 1.7 MGD per year is goal)

Agency Reported Expected Costs and Savings

Total Survey Participants	41
Total Service Population Represented by Survey	Approx 40 million people (13% of U.S. Population)
Water Savings Goals	7 to 22% of future demand
Average Number of Programs	9
Range of Total full time conservation staff	1 to 33 (Median was 5)
Range of Conservation Staff per 100,000 population served	0 to 3.3 (Median was 0.73)
Range of Agency spending per capita on program implementation*	\$0.98 to \$4.36
Per capita water use	Range from 97 to 274 gpcd

*Marin Municipal Water District, CA is \$14, but is not typical



Thank You

Questions?

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