

## 2007 WCTF Recommendations

## Projections

## Reported July 2010

PS #	Description	Applicability	Average year cost to City	10-year savings (MGD)	Cost per Gallon	Added FTEs	Activity Completed	Reported Savings - two years (MGD)	Future Activity
<b>Indoor Strategies</b>									
IN-1	Require all toilets perform at current plumbing code volumes - mandatory retrofit.	All customers	\$542,500	2.1	2.77	2	Toilets are now inspected as part of ECAD ordinance.	0	AWU will be evaluating data gathered from audits, to determine the potential impact of requiring this retrofit at point of sale. The option to make any ECAD or point of sale retrofits mandatory will be reevaluated in June 2011, after the ordinance has been in place for two years and the success of the voluntary program is assessed.
IN-2	Require the use of submeters to bill for water in multi-family properties.	New and some existing multi-family and mixed-use properties.	\$30,000	0.4	0.48	0.75	Ordinance passed 10/18/07 - requires the installation of submeters but not the billing from them.	0.05	Based on a staff phone survey, approx. 75% of new MF units are billed using submeters, and use 12% less water on average compared to non submetered properties built during the same period. (buildings that have centralized boiler/water heater are not covered under this ordinance.)
IN-3	Make changes to Plumbing Code to prohibit inefficient fixtures.	All customers	\$30,000	0.94	0.32	0.5	Ordinance passed 10/18/07 - to prohibit liquid ring vacuum pumps, limit urinals to 0.5 gallons per flush, and prohibit garbage grinders in restaurants. Proposed amendments to the plumbing code are underway (scheduled for second/third reading on June 24, 2010) which will limit all toilets to 1.28 gallons per flush and now allow waterless urinals.	0.25	The WCTF also recommended requiring conductivity controllers on steam boilers, or to limit commercial dishwasher use, which will be considered in the 2010 plan.
IN-4	Establish efficiency requirements for cooling tower management.	Commercial properties with cooling towers.	\$15,000	0.95	0.16	0.25	Ordinance passed 10/18/07 - effective 1/08 Establishing efficiency requirements for new cooling towers. There has not been a requirement for retrofit for existing cooling towers, although rebates are available.	0.04	The staff will evaluate the voluntary participation in the rebate program for retrofitting cooling towers and will then consider implementation of a mandate.
IN-5	Establish water consumption limits for car wash facilities and equipment.	Commercial car wash facilities	\$15,000	0.15	0.99	0.25	Ordinance passed 10/18/07 - effective 1/08 Establishing efficiency requirements for new car wash construction. Existing car washes are now being addressed through a new certification program and offering rebates for retrofits.	0.0	Depending on the success of this voluntary program in the next two summers, the need for a mandatory limit for existing facilities will be evaluated in 2012.
IN-6	Establish efficiency standards for commercial clothes washers.	Commercial laundry facilities	\$15,000	0.43	0.35	0.25	Federal efficiency standards take effect in 2013 for commercial clothes washers; rebates are available in the interim to speed the replacement of older washers. AWU did not establish a local standard as recommended, in light of this federal standard.	0.0	RMC recommends focused outreach to these facilities be increased in the next two years of the rebate program. Rebates will be discontinued after the standard is implemented in 2013.
<b>Outdoor Strategies</b>									
OU-1	Expand Water Use Management Ordinance.	All customers	\$187,500	6.16	0.3	3	Ordinance passed 8/9/07 - effective 10/1/07. Two day per week schedule and time of day watering created savings that exceeded expectations.	~ 5 to 9	Rain sensors were not required due to concern that a controller would shut off after 1/8" inch, and a light rainfall could cause a customer to miss a scheduled watering day without meeting the property's water needs, and hose timers are no longer promoted due to cross-connection concerns.

OU-2	Require new residential irrigation systems to meet design standards and permitting requirements.	Residential customers					Ordinance passed 10/18/07 - effective 1/08. New residential irrigation systems now require permits and must meet design standards. Since the ordinance took effect, 2673 residential and 228 commercial irrigation systems have been permitted and inspected. The staff determined it was unnecessary to specifically identify controller abilities, since that intent is met by the mandatory watering schedule, and not to mandate a distribution uniformity benchmark since it would not be feasible to verify at inspection.	0.27	
			\$245,000	1.32	1.86	4			
OU-3	Create additional design requirements for commercial irrigation systems and landscape design.	Commercial and multi-family customers					Ordinance passed 10/18/07 - effective 1/08. Additional design requirements were included in the plumbing code for commercial irrigation systems as recommended. No requirement was included for plant establishment schedule, since new landscape watering is limited by the water use management ordinance.	0.04	
			\$120,000	0.74	1.62	2			
OU-4	Establish soil-depth requirements for new residential landscapes.	Volume home builders						0	Staff is exploring whether universal soil depth requirements are appropriate given issues of grading, erosion, importing soil and varying plant demands.
			\$125,000	0.44	2.84	2			
OU-5	Require homebuilders to offer a WaterWise landscape option.	Volume home builders					There is no restriction on the area of turfgrass or area with installed irrigation, nor have these options for new home builders been adequately explored.	0	AWU is encouraging the use of native and adapted plants through an educational partnership with the Grow Green program of the Watershed Protection department, and a new program to offer landscape conversion incentive for existing homes. Based on the results of that program, AWU will consider incentives or requirements for new home builders.
			\$15,000	0.21	0.71	0.25			
OU-6	Require regular analyses of automatic irrigation systems.	All properties over 1 acre					Staff have now identified approximately 900 Commercial, Multi-family and Municipal properties larger than one acre with automatic irrigation systems.	0	Staff is now drafting an ordinance to implement this requirement for an analysis to be submitted to AWU once every three years.
			\$132,000	1.47	0.9	2			
OU-7	Expand free irrigation audit program for high-volume water users.	Commercial, multi-family; high-volume residential properties					Using two additional irrigators hired 3/08 for OU-6, an increased number of free audits were conducted for users above 25,000 gallons per month. Additional staff allowed them to add evening/weekend availability for audits. In addition, mandatory irrigation audits have been included as a condition of deferral when a customer is cited with a water use violation.	0.24	
			\$137,500	0.63	2.18	no FTE			
<b>City and Utility Water Conservation Strategies</b>									
CI-1	Ensure funding for leak detection contract	Austin Water Utility					After completing the contract for the original 600 miles of pipe, AWU has continued to fund additional subsurface leak detection contracts for distribution mains at a rate of approximately 750 miles per year.	2.02	AWU is continuing to reduce water loss by decreasing repair response times and has recently begun efforts to detect leaks in larger-diameter transmission mains using new technologies.
			\$100,000	4.8	0.21	no FTE			

CI-2	Assure CIP funding for reclaimed water projects.	Austin Water Utility					Reclaimed water projects are funded and in progress. The recommended WCTF projects are in the following stages of completion: a) UT Transmission Main – construction 95% complete; b) ABIA Transmission Main – design 95% complete, construction scheduled to be bid in July 2010 c) Main to the Roy G Guerrero Colorado River Park (Montopolis Main) – design 90% complete, construction scheduled to be bid in September 2010; d) 24" Rehabilitation -- construction complete; e) 12" Rehabilitation -- construction complete,	0	Funding was for a 5 year plan, to get 10 years of projected savings, which we will begin to see as the projects are completed. The following projects are being reevaluated: a) Smith Road Extension – contingent on 183 rehabilitation; b) 183 Rehabilitation – rehabilitation of abandoned force main deemed infeasible; replacement project has been scoped (East Austin Extension) and included in CIP.
			\$2,500,000	5.95	2.1	no FTE			
CI-3	Adjust Utility water rates to encourage conservation - specifically to consider a 5th tier for residential	All customers					The Cost of Service Study was completed in 2009 and the recommended 5 <sup>th</sup> tier for residential customers took effect in November 2009. The study also recommended removing the commercial subsidy of residential rates, and the phased transition to true cost of service began in FY10. Graphs of historical water use will appear in customer bills starting June 2010.	0	Conservation or excess-use rates for commercial customers will be reevaluated for possible implementation after the new billing system is online in 2011.
			\$0	5	0	no FTE			
CI-4	Require conservation by wholesale customers.	Wholesale customers					Conservation provisions are being included as wholesale contracts come up for renewal. Five of fifteen wholesale customers lack contractual conservation provisions; however, only one small contract will expire before 2020. Many wholesale customers have voluntarily implemented conservation measures that are comparable to those in effect within the City of Austin. Additionally, AWU incentive programs are open to customers of wholesale districts.	N/A	
			\$0	TBD	0	no FTE			
CI-5	Explore alternative water sources	Commercial customers					Rebate amounts for rainwater harvesting systems have been increased substantially in July 2010.	N/A	AWU and Watershed Protection have developed an ordinance that would mandate the beneficial reuse of stormwater on required commercial landscape areas unless those areas are xeric or left undisturbed. The draft ordinance is currently being reviewed by an Environmental Board subcommittee for possible Council action in Fall 2010.
			TBD	TBD					
CI-6	Increase water efficiency in City facilities.	City departments					City departments have been encourage to comply with watering schedules. Retrofits of City fixtures recommended in performance contracts have been completed and 54 irrigation controllers at PARD facilities and athletic fields have been upgraded to a centrally-controlled system. An ordinance was passed in February 2010 requiring youth recreation programs to pay for utilities, including water, above a maximum amount per year, per field.	0.20	City department use is being further evaluated for possible recommendations on annual water use reduction goals.
			\$0	0.37	0	no FTE			

CI-7	Reduce excessive water use due to high pressure.	Residential customers					Ordinance passed 10/18/07 - mandated maximum pressure in new construction. Rebates (\$100) have been available for the installation of pressure reduction valves (PRVs) for residential customers and multifamily properties with high pressure.	0.005	Additional marketing is planned for the program in FY2011 by targeting neighborhoods known to have high pressure.
			\$30,000	0.29	1.07	no FTE			
CI-8	Establish program to alert customers to potential leaks during winter months.	Residential customers						0	The new billing system coming in 2011 will have the capability to alert customers to higher-than-expected use. Staff has not yet designed a program to create a proactive notification of individual customers.
			\$0	0.31	0	no FTE			
CI-9	Expand public education program.	All customers					The City has been participating in the statewide Water IQ program initiated by LCRA, with an annual investment of \$250,000, since 2008. Additional marketing and outreach resources have been used to promote awareness of watering restrictions. A speakers bureau has been established and an increased effort in public forums.	N/A	Dowser Dan early elementary program has been restarted (suspended in November 2008) to compliment existing 5th and 6th grade curricula, including follow-up exercises for teachers.
			\$725,000	N/A	0	no FTE			
CI-10	Create Citizens' Advisory Group on Water Conservation	City of Austin					Resolution 10/6/07 - Continued activity - with increased scope Aug 2009	N/A	
			\$0	N/A	0	0			
<b>Totals</b>			\$4,964,500 per year	32.66 10 year		17.25 FTE		8.1 to 12.1 2 year	