



Water Conservation Program FY18 2nd Qtr Update

Resource Management Commission

March 20, 2018

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Conservation Program Coordinator

2nd Quarter Highlights

- Implementation of cooling tower water efficiency program
- Enhanced low income water conservation assistance
- Water Forward conservation strategies and timeline



Cooling tower water use

- Largest water use in ICI applications
 - Consume 2.4 gallons of water per minute of operation per 100 tons of cooling just through evaporation
 - Consume 20-30 %, or more, of facility's total annual water use
 - Old, inefficient systems consume as much water in a day as all the bathrooms, drinking fountains, kitchens and other water using equipment in the buildings they cool
 - About 100 MGY used for cooling towers in Austin could be saved each year, enough to serve 1500 households, saving approx. \$1.6 million/year in water and wastewater charges

Cooling Tower Requirements

- Registration with AW
- Annual inspections
- Maintain monthly logs
- Efficiency standards and equipment
- Connection to CEMS or UMD
- Blow down water reuse or makeup water offset



Results to date

- 136 cooling tower inspection reports submitted to date
 - 96 installed prior to 2008;
 - 40 are new towers subject to water efficiency standards and equipment requirements
 - 21 towers (5 properties) using alternative water sources

Date installed	≥ 5 cycles	Conductivity controller	Overflow alarm	Drift eliminator	Make-up submeter	Blowdown submeter
Pre-2008	66 (69%)	96 (100%)	42 (44%)	83 (86%)	59 (61%)	57 (59%)
Post 2007	19 (48%)	40 (100%)	23 (58%)	39 (98%)	22 (55%)	22 (55%)

Strategies going forward

- Continue to promote retrofits of older towers and use of alternative water sources through rebates and evaporative loss wastewater credit program
- Technical workshops on how to achieve the greatest potential cycles of concentration
- Work closer with customers/DSD mechanical review to ensure requirements for new towers being met

AW low income assistance

- 2012 - code change to allow AW funding to fix leaks
- 2013 - partnerships with AE and TG for low income SF and MF water/energy efficiency repairs, retrofits, upgrades
- 2017 - AE drops plumbing repairs from SF program, referring them to NHCD G.O Repair, but still includes retrofit of AW aerators and showerheads

Other Low Income Programs

- CAP discounted rates and fee exemptions
- Funding private wastewater lateral repair through NHCD
- AW/HACA/Pecan Street MOU
 - Data loggers/free high efficiency fixtures
- AW/Foundation Communities
 - Data loggers/free high efficiency fixtures

Program criteria

- Provide plumbing repairs/upgrades to low income SF and MF customers
- Leverage other programs/resources for “one touch” approach, where possible
- Include data gathering/robust financial accounting to assess effectiveness
- Clear AW branding

Approaches evaluated

- Cost share/rebates
- AW direct assistance (e.g., “Plumbers to People”)
- Public/private partnerships
- Loans
- Grants

Findings

- Many programs currently exist that provide plumbing repairs to low income residents
- Potential gaps include retrofits where no repairs needed and fixing broken private water laterals
- Could help with waiting lists for other repair programs

Option 1

- **Private Potable Water Lateral Repair**

- Addresses totally unmet need that is out of reach for low-income customers
- Average cost of \$4,500 in repairs per property
 - AW already partner on wastewater lateral repair program
- Fund transfer to NHCD for repair / administrative costs
 - NHCD charges 15% administrative fee for wastewater lateral program to cover screening/program administration
 - Need to ensure AW branding of program materials

Option 2

- **Indoor Plumbing Repair Direct Assistance**

- Supplements / duplicates existing city programs
- Estimated average \$400 in repairs for each property
 - Includes showerheads, toilets, faucets, and aerators
 - Hot water heaters included if leaking
 - Efficiency upgrades limited to fixtures that must be replaced
- Targeted to AW CAP customers
 - Eligibility screening already completed
- AW contracts with plumber or non-profit for repairs
 - Payments made directly to contractor
 - Uses existing resources to review repair work

Water Forward 2018 timeline

- March 21 – public workshop
 - March 21, 2018, 6:00pm – 8:00pm
Dawson Elementary School Cafeteria
3001 S 1st Street, Austin, TX 78704
- June – Initial draft available
- July – Boards and commissions
- October – Council action



Water Forward Demand Strategies

Measure Name	Yield Potential 2115
Landscape Transformation Ordinance	
Benchmarking	
AMI	
Water Loss Control – Utility	
Landscape Transformation Incentives	
Irrigation Efficiency Incentives	
CII Ordinance for Cooling Towers	

Relative Magnitude of Yield (Acre-Feet)


> 40,000


20,000 - 40,000


10,000 - 20,000


1,000 - 10,000


< 1,000



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AW energy efficiency measures

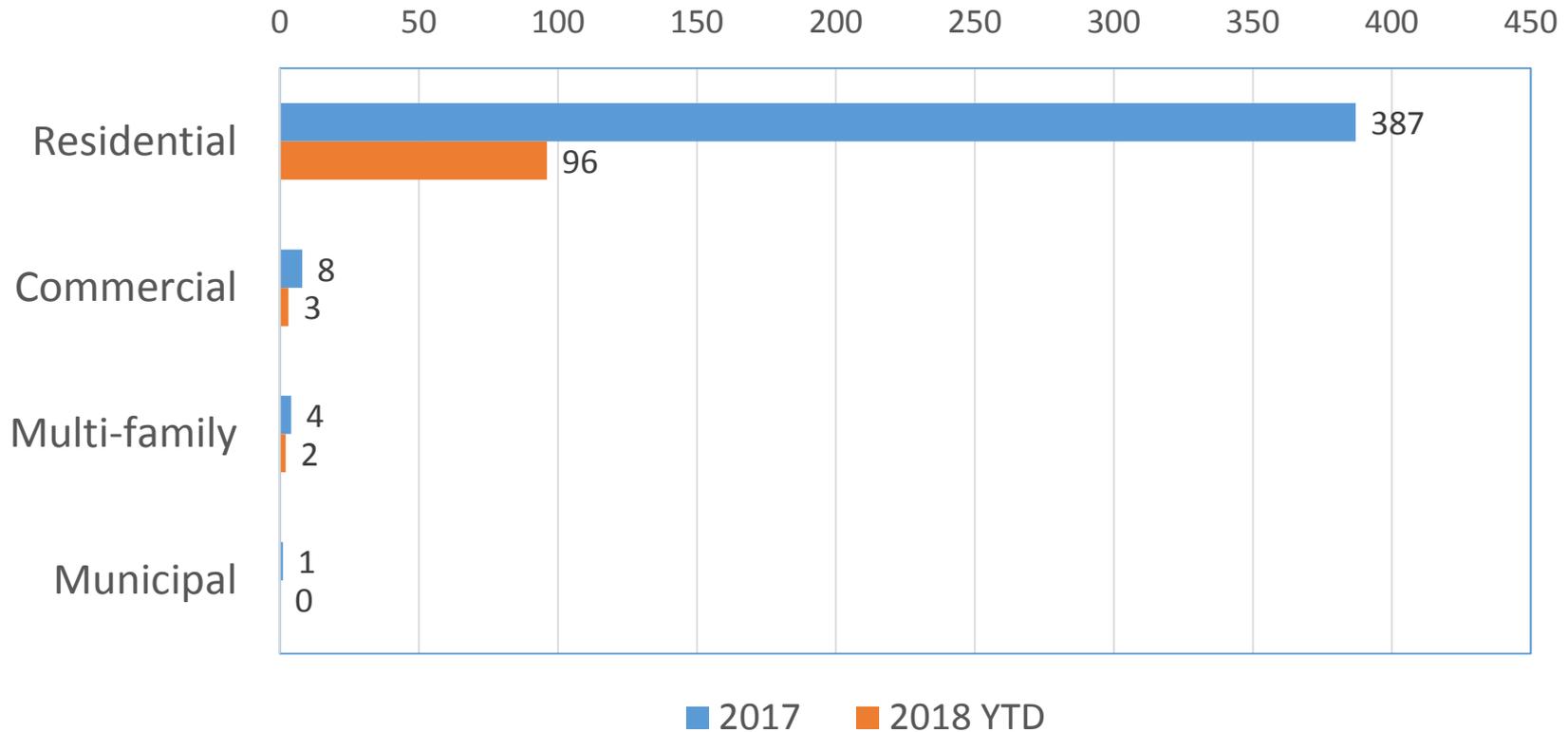
- BioGas Go-generation plant at Hornsby Bend (875 kW)
- Green Choice Partner – select first and pay for green energy
- Energy efficient LED lighting
- Solar energy at Glen Bell Service Center, 51st Street Reclaimed Water Tower
- Load Curtailment Program -to reduce summer peaks
- Pump sequencing to avoid peak demand charges

Rebate activity

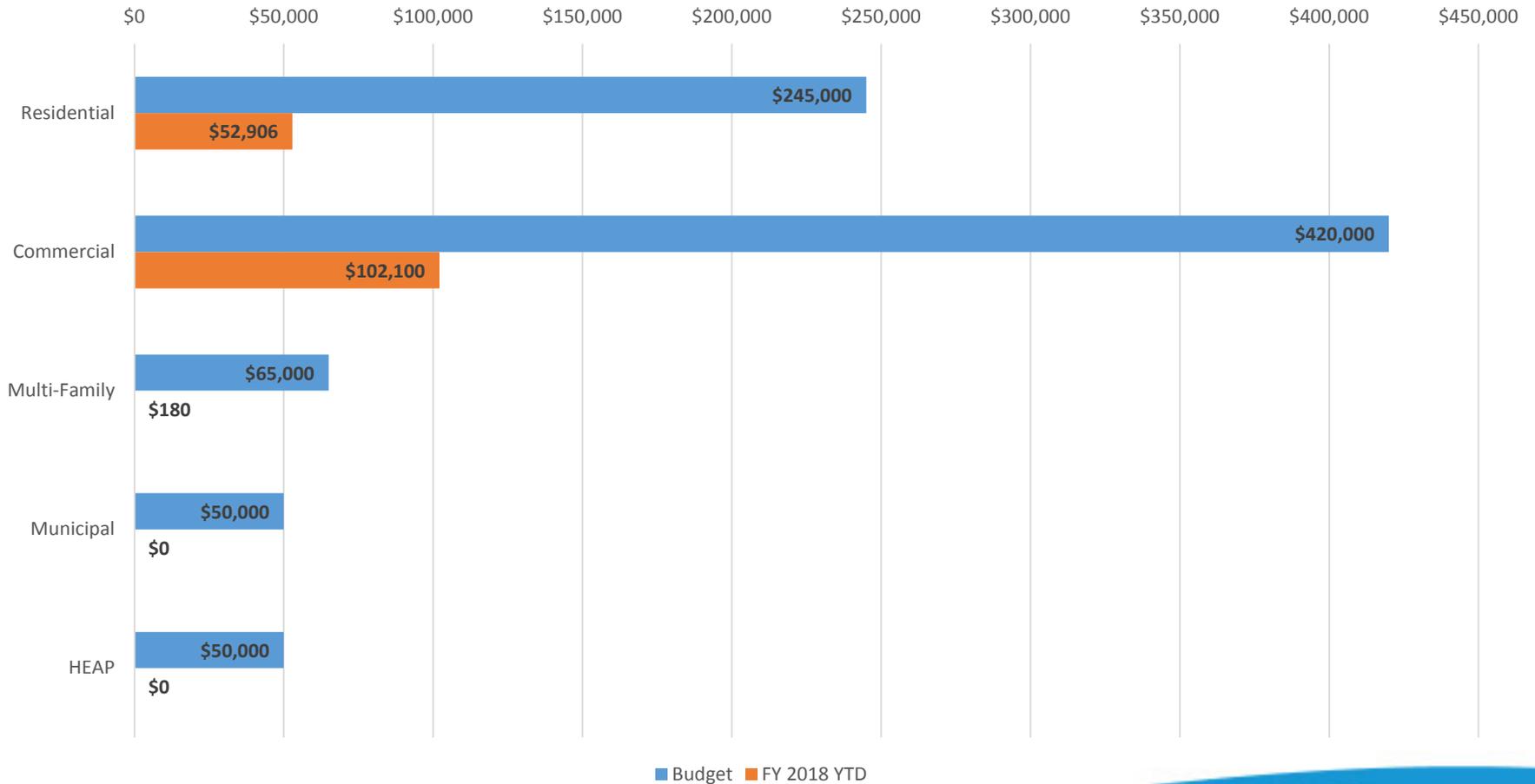
Program Name	FY 2018 YTD		FY 2017	
	<u>Number of Rebates</u>	<u>Rebate Amount</u>	<u>Number of Rebates</u>	<u>Rebate Amount</u>
BUCKS FOR BUSINESS	1	100,000.00	0	0
COMMERCIAL AUDIT REBATE	1	1,000.00	0	0
DROUGHT SURVIVAL TOOLS	0	0	91	4,970.00
IRRIGATION REBATE-COMM	1	1,100.00	4	3,900.00
IRRIGATION REBATE-SF	23	3,510.42	47	6,003.49
POOL COVER REBATE	4	197.21	6	551.35
PRESSURE REGULATING VALVE REBATE	3	300	20	2,000.00
RAINWATER HARVESTING COMM	0	0	4	5,150.00
RAINWATER HARVESTING MF	2	180	1	5,000.00
RAINWATER HARVESTING SF	51	40,812.13	202	91,665.10
WATERING TIMER	2	55.97	11	281.7
WATERWISE LANDSCAPE REBATE	12	7,350.00	9	3,325.00
WATERWISE RAINSCAPE	1	500	4	273.6
WATERWISE RAINSCAPE - SCHOOLS	0	0	0	0
Grand Total	101	\$155,005.73	399	\$123,120.24

Rebate Program Participation FY 2018 YTD & FY 2017

Number of Rebate Participants

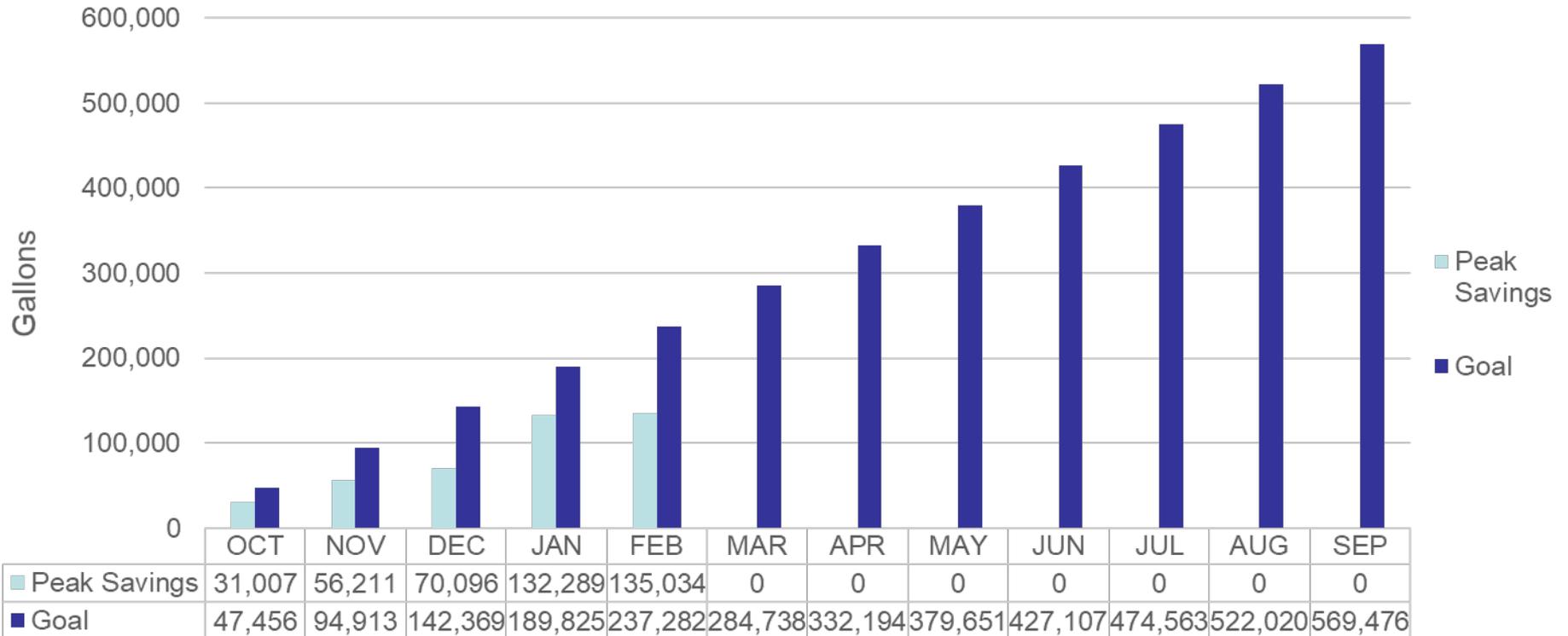


Program Spending



Sources: WCTS Transactions thru 02/28/2018, eCombs as of 03/08/2018

Total Peak Water Savings FY 2018 YTD (Gallons)



Programs included: Showerheads, Aerators, PRV rebates, Commercial Process Rebates, Irrigation audits SF, Waterwise Landscape SF Rebate, Rainwater Harvesting Rebate (all).