

Miami-Dade Water & Sewer Department

## Miami-Dade Consolidated PWS Water Use Permit No. 13-00017-W

# Water Conservation Plan 2018 Annual Report

January 1, 2018 - December 31, 2018

Miami-Dade Water & Sewer Department 3071 SW 38<sup>th</sup> Avenue Miami, FL 33146

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#### INTRODUCTION

On November 15, 2007, the South Florida Water Management District (SFWMD) Governing Board approved the Miami-Dade Consolidated Water Use Permit (WUP) which requires Miami Dade Water & Sewer Dept. (WASD) to develop a 20-year Water Use Efficiency Plan (Plan) to conserve 19.6 million gallons a day (MGD) of water by 2026. The following is a summary of changes to the WUP since the approval of the permit:

On November 1, 2010, SFWMD reissued the permit extending the WUP an additional three years; on December 16, 2012, the permit was again reissued to increase the permitted allocation and to modify the water supply for the South Miami Heights Water Treatment Plant to include allocation from the Floridan Aquifer. On February 9, 2015, SFWMD issued a modification to the WUP, extending the expiration date to February 9, 2035. The permit was again re-issued on September 21, 2015 due to revisions of certain special permit conditions (specifically 12, 13, 16, 22, 26 through 35 and 38).

To comply with the original WUP requirements, WASD developed the Plan using Florida Department of Environmental Protection's Conserve Florida EZ Guide (Guide). The Guide was developed as a web-based application for goal-based water conservation planning. WASD was the first utility in the state to use the Guide to develop, administer and report its water conservation program.

Implementation of the Guide's Best Management Practices (BMPs) assists WASD with meeting the projected 19.62 MGD water savings target by 2026, as required by the WUP. As of December 31, 2018, cumulative water savings from BMPs are 15.51 MGD, exceeding the calendar year 2018 water savings goal of 13.28 MGD.

WASD hereby submits the twelfth Water Conservation Plan Annual Progress Report detailing Miami Dade County's (COUNTY) actions and efforts to comply with Special Permit Condition No. 17 of the modified WUP.

#### **SUMMARY**

The Plan was created utilizing the Guide to develop and implement BMPs. The use of quantifiable BMPs has assisted in reviewing and evaluating planned and reported water savings on an annual basis to ensure the implementation of a cost-effective conservation program.

BMPs developed by the Guide included in the Plan are measured and counted toward the 2026 water savings goal of 19.62 MGD. These BMPs include financial rebates for the purchase and installation of high efficiency fixtures including toilets, faucets and showerheads for properties constructed prior to 1996. Toilets must be Environmental Protection Agency (EPA) WaterSense certified not to exceed 1.28 gallons per flush and showerheads and faucets can either be EPA WaterSense certified or have a flowrate that cannot exceed 1.5 gallons per minute (gpm). The high efficiency fixture rebate program provides rebates to single and multi-family residential properties of \$50, \$25 and \$25 for toilets, faucets and showerheads, respectively. The senior high efficiency toilet rebate program implemented in 2016 provides up to \$200 for the purchase and installation of one toilet or up to \$300 for the purchase and installation of two high efficiency toilets to low income senior homeowners of the COUNTY. The commercial program provides \$50 rebates on certified flushometer valve toilets and urinals to commercial, institutional and industrial restrooms such as airports, theaters, stadiums, schools and office buildings. The lodging program provides \$50 toward the purchase and installation of certified high efficiency toilets for qualified hotels and motels.

To reduce outdoor water use, the COUNTY offers free landscape irrigation evaluations to single family homeowners and large property owners (i.e. condominium associations, commercial properties, etc.) that have an existing, functioning in-ground irrigation system in place. Rebates are available toward the purchase and installation of retrofits recommended in the evaluation.

In addition to the above BMPs, other water conservation efforts have been developed to assist WASD to reach its water saving goals. They include: 1) free showerhead exchanges – COUNTY residents can exchange their old water wasting showerhead for a new, high efficiency model; 2) free multi-family showerhead distribution – property owners and managers of multi-family residences constructed before 1996 are eligible for a free large volume showerhead distribution; 3) free lodging showerhead distribution – hotels and motels constructed prior to 1996 are eligible for a free large volume showerhead distribution; 4) water conservation kits – residents concerned about high water bills can obtain a free water conservation kit which includes a high efficiency showerhead, kitchen swivel faucet aerator, 1.0 gpm bathroom aerator and leak detection dye tablets.

In addition to the Plan, a number of legislative measures have been developed to assist the COUNTY in reaching its water savings goals. These include the adoption of a water use efficiency standard manual, which provides specific code changes regarding high efficiency flow rate requirements for bathroom and kitchen fixtures. It provides guidance and recommendations with the intent of achieving maximum water savings in new residential and commercial developments in both incorporated and unincorporated areas of the COUNTY.

The COUNTY also continues to implement the year-round permanent landscape irrigation restriction ordinance which limits landscape irrigation to two days per week. A written advisory notice is sent to follow up on formal complaints that are received through either the COUNTY's 3-1-1 system or via a web-based e-mail system.

The COUNTY has also enacted a tiered water rate structure which includes increasing water rates for higher water use to encourage conservation.

Educational outreach is an important component of the COUNTY's water conservation efforts. During 2018,

WASD participated in 45 outreach and education events providing information to residents about the region's water resources and the importance of conserving it. Free giveaways are provided encouraging participants to learn about WASD's incentives (BMPs) to save water. Free reusable water bottles, chip clips, fans, shower timers, aerators (all with water conservation messaging) are an example of items provided. In addition, WASD partners with Dream in Green (DIG), a local not for profit environmental educational organization. DIG's Water + Energy + Learning + Behavior (WELAB) workshops educate residents about the importance of conserving water and energy and their inter-dependent relationship (water/energy nexus). Participants are provided a free toolkit including a high efficiency showerhead, lightbulbs, reusable water bottle and showertimers contributed by WASD. In addition, WASD conducts lightbulb and showerhead exchanges during the year at COUNTY-wide outreach events (i.e. Adopt a Tree events) to educate residents on the water/energy nexus connection. Residents can exchange up to three incandescent lightbulbs and two old showerheads for energy efficient Compact Fluorescent Lamp (CFLs) lightbulbs and high efficiency showerheads free of charge.

Education outreach also includes WASD's annual *Every Drop Counts Poster Contest* which invites K-5<sup>th</sup> grade students to submit a poster conveying a water conservation theme. To incentivize participation, each child that submits a poster receives an Every *Drop Counts* t-shirt. Thirteen winners, one from each COUNTY commission district is selected and provided gifts, prizes and are invited to an awards ceremony for their efforts. This year's event drew 1,228 submittals from 41 schools located COUNTY wide. A calendar is created each year depicting the thirteen winner's posters conveying the message of water conservation and its importance to the COUNTY's water supply.

During 2018, the COUNTY Board of Commissioners, considering climate change and rising sea levels, adopted a resolution recognizing the link between conserving water and preventing the advancement of salt water intrusion into the Biscayne Aquifer. The resolution required the creation of education materials highlighting this link so residents can understand issues affecting the COUNTY, its water resources and how water conservation can lessen the effect.

The COUNTY has developed a water conservation website that provides information on all the programs mentioned above. To learn more, visit <a href="http://www.miamidade.gov/waterconservation/home.asp">http://www.miamidade.gov/waterconservation/home.asp</a>.

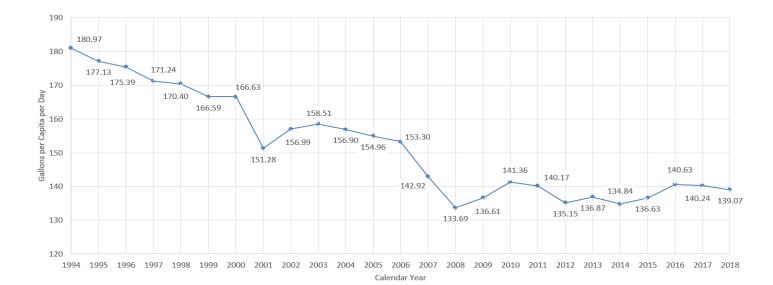
Because of these efforts as of December 31, 2018, the COUNTY is currently experiencing actual finished water demands of 328.08 MGD which is approx. 14 MGD lower than 2006 actual finished water demands of 341.62 MGD (as of 12/31/2006, the year prior to the implementation of the WUE Plan).

#### **SECTION I - PLAN IMPLEMENTATION**

BMPs implemented since the plan inception are shown in Appendix A. As a result, the COUNTY has experienced declining per capita water consumption. Figure 1 reflects the historical systemwide per capita, showing the effectiveness of WASD's water efficiency strategies. Please note that per capita calculations are revised each year based on current population data from the Miami-Dade COUNTY Planning Division of the Department of Regulatory and Economic Resources.

Table 1 shows both the estimated water savings achieved through implementation of the BMPs vs. annual planned goals for water savings. As of December 31, 2018, estimated water savings from implementation of BMPs are approx. 15.51 MGD, exceeding the water savings target set for that year of 13.28 MGD.

Figure 1. Miami Dade Water & Sewer Dept. Historical Systemwide Average Finished Water Per Capita



**Table 1. Water Savings Report Summary** 

YEAR	WATER SAV	SAVINGS/ YR	
	Planned	Reported	
2007	1.09	1.21	
2008	2.24	3.48	2.26
2009	3.53	4.90	1.43
2010	4.82	6.54	1.64
2011	6.10	8.47	1.92
2012	7.22	10.07	1.61
2013	8.42	11.23	1.15
2014	9.54	12.34	1.12
2015	10.66	14.14	1.80
2016	11.70	15.05	0.91
2017	12.49	15.32	0.27
2018	13.28	15.51	0.19

# APPENDIX A - BMP IMPLEMENTATION THROUGH DECEMBER 31, 2018

BMP: Residential High Efficiency Toilet (HET) Rebate Cost: \$50/rebate

Year		Units	Savings/Account gallons per account per day	Total Savings (gal/day)
	Planned	750	29	21,750
2007	Reported	971	29	28,159
	Difference	221		6,409
	Planned	750	29	21,750
2008	Reported	1253	29	36,337
	Difference	503		14,587
	Planned	1000	29	29,000
2009	Reported	3478	29	100,862
	Difference	2478		71,862
	Planned	2000	29	58,000
2010	Reported	2622	29	76,038
	Difference	622		18,038
	Planned	2000	29	58,000
2011	Reported	2566	29	74,414
	Difference	566		16,414
	Planned	1200	29	34,800
2012	Reported	1220	29	35,380
	Difference	20		580
	Planned	1500	29	43,500
2013	Reported	1547	29	44,863
	Difference	75		2,175
	Planned	1500	29	43,500
2014	Reported	1558	29	45,182
	Difference	58		1,682
	Planned	1450	29	42,050
2015	Reported	1887	29	54,723
	Difference	437		12,673

	Planned	1450	29	42,050
2016	Reported	1772	29	51,388
	Difference	322		9,338
	Planned	2400	29	69,600
2017	Reported	1469	29	42,601
	Difference	-931		-26,999
	Planned	1500	29	43,500
2018	Reported	1466	29	42,514
	Difference	-34		-986

BMP: Multifamily High Efficiency Toilet (HET) Rebate Cost: \$50/rebate<sup>1</sup>

Year		Units	Savings/Unit Gallons per multi-family unit per day	Total Savings (gal/day)
	Planned	0	64	0
2007	Reported	0	64	0
	Difference	0		
	Planned	0	64	0
2008	Reported	0	64	0
	Difference	0		
	Planned	310	64	19,840
2009	Reported	315	64	20,160
	Difference	5		320
	Planned	0	64	0
2010	Reported	0	64	0
	Difference	0		
	Planned	0	64	0
2011	Reported	0	64	0
	Difference	0		
	Planned	0	64	0
2012	Reported	0	64	0
	Difference	0		0
	Planned	0	64	0
2013	Reported	0	64	0
	Difference	0		0
	Planned	0	64	0
2014	Reported	0	64	0
	Difference	0		0
	Planned	80	29	2,320
2015	Reported	588	29	17,052
	Difference	508		14,732

	Planned	80	29	2,320
2016	Reported	519	29	15,051
	Difference	439		12,731
	Planned	120	29	3,480
2017	Reported	635	29	18,415
	Difference	515		14,935
	Planned	300	29	8,700
2018	Reported	235	29	6,815
	Difference	-65		-1,885

<sup>&</sup>lt;sup>1</sup>Incorrectly combined with Residential High Efficiency Toilet Rebates prior to 2015

BMP: Senior High Efficiency Toilet (HET) Rebate Cost: \$200 for purchase and installation of one toilet/\$300 for purchase and installation of two toilets

Year		Units	Savings/Account gallons per account per day	Total Savings (gal/day)
2016	Planned	0	29	0
2016	Reported	41	29	1,189
	Difference	41		1,189
2017	Planned	480	29	13,920
2017	Reported	191	29	5,539
	Difference	-289		-8,381
	Planned	204	29	5,916
2018	Reported	120	29	3,480
	Difference	-84		-2,436

BMP: Single Family High Efficiency Showerhead Rebate Cost: \$25/rebate<sup>1</sup>

Year		Units	Savings/Measure Gallons/Unit/Day	Total Savings Gallons Per Day (gal/day)
	Planned	0	35	0
2007	Reported	0	35	0
	Difference	0		0
	Planned	0	35	0
2008	Reported	0	35	0
	Difference	0	35	0
	Planned	0	35	0
2009	Reported	0	35	0
	Difference	0		0
	Planned	0	35	0
2010	Reported	0	35	0
	Difference	0		0
	Planned	0	35	0
2011	Reported	0	35	0
	Difference	0		0
	Planned	50	35	1750
2012	Reported	23	35	805
	Difference	-27		-945
	Planned	50	35	1750
2013	Reported	46	35	1610
	Difference	-4		-140
	Planned	0	35	0
2014	Reported	59	35	2,065
	Difference	59		2,065
0045	Planned	0	35	0
2015	Reported	167	35	5,845
•	•			•

	Difference	167		5,845
	Planned	0	35	0
2016	Reported	279	35	9,765
	Difference	279		9,660
	Planned	300	35	10,500
2017	Reported	317	35	11,095
	Difference	17		595
	Planned	300	35	10,500
2018	Reported	326	35	11,410
	Difference	26		910

<sup>1</sup>Note: originally \$10/rebate

BMP: Single Family High Efficiency Faucet Rebate Cost: \$25/rebate<sup>1</sup>

Year		Units	Savings/Measure Gallons/Unit/Day	Total Savings Gallons Per Day (gal/day)
	Planned	0	12	0
2007	Reported	0	12	0
	Difference	0		0
	Planned	0	12	0
2008	Reported	0	12	0
	Difference	0		0
	Planned	0	12	0
2009	Reported	0	12	0
	Difference	0		0
	Planned	0	12	0
2010	Reported	0	12	0
	Difference	0		0
	Planned	0	12	0
2011	Reported	0	12	0
	Difference	0		0
	Planned	50	12	600
2012	Reported	107	12	1284
	Difference	57		684
	Planned	50	12	600
2013	Reported	120	12	1440
	Difference	70		840
	Planned	0	12	0
2014	Reported	151	12	1,812
	Difference	151		1,812
2045	Planned	0	12	0
2015	Reported	433	12	5,196

	Difference	433		5,196
	Planned	0	12	0
2016	Reported	564	12	6,768
	Difference	564		6,768
	Planned	600	12	7,200
2017	Reported	584	12	7,008
	Difference	-16	12	-192
	Planned	600	12	7,200
2018	Reported	639	12	7,668
	Difference	-16	12	468

<sup>1</sup>Note: originally \$10/rebate

BMP: Large Property Landscape Irrigation Evaluation Rebate Cost: \$2,850/rebate

Year		Units	Savings/Account Gallons/account/day	Total Savings (gal/day)
	Planned	20	35,000	700,000
2007	Reported	20	35,000	700,000
	Difference	0		
	Planned	20	35,000	700,000
2008	Reported	50	35,000	1,750,000
	Difference	30		1,050,000
	Planned	20	35,000	700,000
2009	Reported	25	35,000	875,000
	Difference	5		175,000
	Planned	25	35,000	875,000
2010	Reported	26	35,000	910,000
	Difference	1		35,000
	Planned	35	35,000	1,225,000
2011	Reported	44	35,000	1,540,000
	Difference	9		315,000
	Planned	25	35,000	875,000
2012	Reported	36	35,000	1,260,000
	Difference	11		385,000
	Planned	26	35,000	910,000
2013	Reported	28	35,000	980,000
	Difference	2		70,000
	Planned	27	35,000	945,000
2014	Reported	25	35,000	875,000
	Difference	-2		-70,000
	Planned	69	35,000	2,415,000
2015	Reported	42	35,000	1,470,000
	Difference	-27		-945,000

	Planned	69	various	-
2016	Reported	23	various	770,448
	Difference	-46		-
	Planned	24	various	33,600
2017	Reported	37	various	75,432
	Difference	13		41,832
	Planned	24	various	33,600
2018	Reported	38	various	61,054
	Difference	13		27,454

**BMP:** Single Family Home Landscape Irrigation Evaluation Rebate Cost: \$500/rebate

Year		Units	Savings/Account Gallons/account/day	Total Savings (gal/day)
	Planned	0	233	0
2007	Reported	0	233	0
	Difference	0		
	Planned	0	233	0
2008	Reported	0	233	0
	Difference	0		
	Planned	200	233	46,600
2009	Reported	200	233	46,600
	Difference	0		
	Planned	120	233	27,960
2010	Reported	131	233	30523
	Difference	11		2563
	Planned	120	233	27,960
2011	Reported	145	233	33,785
	Difference	25		5,825
	Planned	100	233	23,300
2012	Reported	81	233	18,873
	Difference	-19		-4427
	Planned	75	233	17,475
2013	Reported	58	233	13,514
	Difference	17		-3961
	Planned	75	233	17,475
2014	Reported	75	233	17,475
	Difference	17		0
	Planned	195	233	45,435
2015	Reported	84	233	19,572
	Difference	-111		-25,863

	Planned	195	233	45,435
2016	Reported	73	233	17,009
	Difference	-122		-28,426
	Planned	60	233	13,980
2017	Reported	84	233	19,572
	Difference	24		5,592
	Planned	72	233	16,776
2018	Reported	95	233	22,135
	Difference	24		5,359

BMP: Single Family – High Efficiency Showerhead Exchange Cost: \$3.50/showerhead

Year		Units	Savings/Measure Gallons/measure/day	Total Savings (gal/day)
2007	Planned	1600	35	56,000
	Reported	4194	35	146,790
	Difference	2594		90,790
2008	Planned	1600	35	56,000
	Reported	2437	35	85,295
	Difference	837		29,295
2009	Planned	1480	35	51,800
	Reported	2163	35	75,705
	Difference	683		23,905
2010	Planned	1500	35	52,500
	Reported	1986	35	69,510
	Difference	486		17,010
2011	Planned	1500	35	52,500
	Reported	1936	35	67,760
	Difference	436		15,260
2012	Planned	1500	35	52,500
	Reported	3158	35	110,530
	Difference	1658		58,030
	Planned	1100	35	38,500
2013	Reported	1228	35	42,980
	Difference	128		4,480
	Planned	1500	35	52,500
2014	Reported	1991	35	69,685
	Difference	491		17,185
	Planned	1500	35	52,500
2015	Reported	2554	35	89,390
	Difference	1,054		36,890

	Planned	1500	35	52,500
2016	Reported	1463	35	51,205
	Difference	-37		-1,295
	Planned	900	35	31,500
2017	Reported	1121	35	39,235
	Difference	221		7,735
	Planned	1,104	35	38,640
2018	Reported	651	35	22,785
	Difference	-453		15,855

BMP: Multifamily – High Efficiency Showerhead Exchange Cost: \$3.50/showerhead

Year		Units	Savings/Measure Gallons/Unit/Day	Total Savings Gallons Per Day (gal/day)
2007	Planned	1600	35	56,000
	Reported	4193	35	146,755
	Difference	2593		90,755
	Planned	1600	35	56,000
2008	Reported	4000	35	140,000
	Difference	2400	35	84,000
	Planned	2120	35	74,200
2009	Reported	2130	35	74,550
	Difference	10		350
	Planned	5000	35	175,000
2010	Reported	6519	35	228,165
	Difference	3485		53,165
	Planned	2500	35	87,500
2011	Reported	2857	35	99,995
	Difference	357		12,495
	Planned	2000	35	70,000
2012	Reported	2163	35	75,705
	Difference	163		5,705
	Planned	800	35	28,000
2013	Reported	814	35	28,490
	Difference	14		490
	Planned	1000	35	35,000
2014	Reported	1167	35	40,845
	Difference	67		5,845
2045	Planned	1000	35	35,000
2015	Reported	0	35	0

	Difference	-1000		-35,000
	Planned	2003	35	70,105
2016	Reported	77	35	2,695
	Difference	-1,926		-67,410
	Planned	300	35	10,500
2017	Reported	1066	35	37,310
	Difference	766		26,810
	Planned	804	35	28,140
2018	Reported	2	35	70
	Difference	-802		-28,070

BMP: Single Family High Efficiency Retrofit Kit (includes bathroom and kitchen faucet aerators and dye tablets)
Cost: \$5/kit

Year		Units	Savings/Measure Gallons/measure/day	Total Savings (gal/day)
	Planned	1600	12	19,200
2007	Reported	4194	12	50,328
2007	Difference	2594		31,128
	Planned	1600	12	19,200
2008	Reported	2437	12	29,244
	Difference	837		10,044
	Planned	1480	12	17,760
2009	Reported	1498	12	17,976
	Difference	18		216
	Planned	1000	12	12,000
2010	Reported	1321	12	15,852
	Difference	321		3,852
	Planned	1000	12	12,000
2011	Reported	1417	12	17,004
	Difference	417		5,004
	Planned	1000	12	12,000
2012	Reported	2576	12	30,912
	Difference	1576		18,912
	Planned	800	24	9,600
2013	Reported	890	24	10,680
	Difference	90		1,080
	Planned	1000	24	24,000
2014	Reported	1893	24	45,432
	Difference	893		21,432
0045	Planned	1000	24	24,000
2015	Reported	1345	24	32,280

	Difference	345		8,280
	Planned	1000	24	24,000
2016	Reported	160	24	3,840
	Difference	-840		-20,160
	Planned	0	24	0
2017	Reported	0	24	0
	Difference	0		0
2018		N/A		N/A

BMP: Multifamily High Efficiency Retrofit Kit (includes bathroom and kitchen faucet aerators and dye tablets)
Cost: \$5/kit

Year		Units	Savings/Measure Gallons/measure/day	Total Savings (gal/day)
2007	Planned	1600	12	19,200
	Reported	4193	12	50,316
	Difference	2593		31,116
	Planned	1600	12	19,200
2008	Reported	4000	12	48,000
	Difference	2400		28,800
	Planned	2120	12	25,440
2009	Reported	2130	12	25,560
	Difference	10		120
	Planned	2600	12	31,200
2010	Reported	5657	12	67,884
	Difference	3057		36,684
	Planned	2000	12	24,000
2011	Reported	2618	12	31,416
	Difference	618		7,416
	Planned	1500	12	18,000
2012	Reported	1567	12	18,804
	Difference	67		804
	Planned	500	24	12,000
2013	Reported	662	24	15,888
	Difference	162		3,888
	Planned	750	24	18,000
2014	Reported	576	24	13,824
	Difference	-174		-4,176
0045	Planned	750	24	18,000
2015	Reported	0	24	0

	Difference	-750		-18,000
	Planned	1,250	24	30,000
2016	Reported	9	24	8,640
	Difference	-1,241		-29,784
	Planned	0	24	0
2017	Reported	0	24	0
	Difference	0		0
2018		N/A		N/A

BMP: Single Family Senior and Low Income High Efficiency Toilet & Retrofit Kit\*

Cost: N/A

Note: Program ended October 2012

Year		Units	Savings/Account (Address) Gallons/account/day	Total Savings (gal/day)
	Planned	750	64	48,000
2007	Reported	890	64	56,960
	Difference	140		8,960
	Planned	1000	64	64,000
2008	Reported	1124	64	71,936
	Difference	124		7,936
	Planned	1000	64	64,000
2009	Reported	1000	64	64,000
	Difference	0		
	Planned	1000	64	64,000
2010	Reported	845*	64	54,080
	Difference	-155		-9,920
	Planned	750	64	48,000
2011	Reported	706	64	45,184
	Difference	44		-2,816
	Planned	750	64	48,000
2012	Reported	463	64	29,632
	Difference	-287		-18,368
2013		N/A		N/A
2014		N/A		N/A
2015		N/A		N/A
2016		N/A		N/A
2017		N/A		N/A
2018		N/A		N/A

\*Note: Reported Value is for each address where a retrofit occurred. A retrofit consists of up to 2 HETs, 2 showerheads, 2 bathroom faucet aerators and a kitchen aerator.

BMP: Single Family High Efficiency Clothes Washer Rebates Cost: N/A

Note: Program ended October 2009

Year		Units	Savings/Measure gallon/measure/day	Total Savings (gal/day)
	Planned	0	16.3	0
2007	Reported	0	16.3	0
	Difference	0		
	Planned	150	16.3	2,445
2008	Reported	849	16.3	13,838.7
	Difference	699		11,393.7
	Planned	250	16.3	4,075
2009	Reported	937	16.3	15,273.1
	Difference	687		11,198.1
2010		N/A		N/A
2011		N/A		N/A
2012		N/A		N/A
2013		N/A		N/A
2014		N/A		N/A
2015		N/A		N/A
2016		N/A		N/A
2017		N/A		N/A
2018		N/A		N/A

BMP: Non-Residential High Efficiency Aerators (Industrial, Commercial and Institutional (ICI)) Cost: \$0.50/aerator

	Planned	0	12	0
2014	Reported	205	12	2,460
	Difference	205		2,460
	Planned	0	12	0
2015	Reported	0	12	0
	Difference	0		0
	Planned	0	12	0
2016	Reported	0	12	0
	Difference	0		0
	Planned	0	12	0
2017	Reported	0	12	0
	Difference	0		0
	Planned	0	12	0
2018	Reported	85	12	1020
	Difference	85		1020

### BMP: Non-Residential COUNTY Owned Facilities Landscape Irrigation Evaluation (no rebate) Cost: \$250/evaluation

Year		Units	Savings/Measure Gallons/measure/day	Total Savings (gal/day)
	Planned	22	1,500	33,000
2007	Reported	22	1,500	33,000
	Difference	0		
	Planned	10	1,500	15,000
2008	Reported	38	1,500	57,000
	Difference	28		42,000
	Planned	0	1,500	0
2009	Reported	0	1,500	0
	Difference	0		
	Planned	0	1,500	0
2010	Reported	3	1,500	4500
	Difference	3		4500
	Planned	10	1,500	15000
2011	Reported	7	1,500	10,500
	Difference	3		-4,500
	Planned	0	1500	0
2012	Reported	16	1500	24,000
	Difference	16		24,000
	Planned	0	1500	0
2013	Reported	0	1500	0
	Difference			
	Planned	0	1500	0
2014	Reported	1	1500	1500
	Difference	1		1500
2015	Planned	0	1500	0

	Reported	0	1500	0
	Difference	0		0
	Planned	0	1500	0
2016	Reported	0	1500	0
	Difference	0		0
	Planned	0	1500	0
2017	Reported	0	1500	0
	Difference	0		0
2018	N/A			N/A

**BMP: Non-Residential Green Restaurant Evaluation (no rebate)** 

Cost: \$250/evaluation

Year		Units	Savings/Measure Gallons/measure/day	Total Savings (gal/day)
	Planned	0	100	0
2007	Reported	0	100	0
	Difference	0		
	Planned	12	100	1,200
2008	Reported	14	100	1,400
	Difference	2		200
	Planned	12	100	1,200
2009	Reported	12	100	1,200
	Difference	0		
	Planned	12	100	1,200
2010	Reported	11	100	1,100
	Difference	-1		-100
	Planned	0	100	0
2011	Reported	0	100	0
	Difference	0		
	Planned	0	100	0
2012	Reported	0	100	0
	Difference	0		
	Planned	0	100	0
2013	Reported	0	100	0
	Difference	0		
	Planned	0	100	0
2014	Reported	9	100	900
	Difference	0		900
2015	Planned	0	100	0

	Reported	0	100	0
	Difference	0		0
	Planned	0	100	0
2016	Reported	0	100	0
	Difference	0		0
	Planned	0	100	0
2017	Reported	0	100	0
	Difference	0		0
2018	N/A			N/A

BMP: Non-Residential Green Lodging Evaluation no rebates Cost: \$250/evaluation

Year		Units	Savings/Measure gallons/measure/day	Total Savings (gal/day)
	Planned	0	1,617	0
2007	Reported	0	1,617	0
	Difference	0		
	Planned	12	1,617	19,404
2008	Reported	17	1,617	27,489
	Difference	5		8,085
	Planned	12	1,617	19,404
2009	Reported	21	1,617	33,957
	Difference	9		14,553
	Planned	0	1,617	0
2010	Reported	4	1,617	6,468
	Difference	4		6,468
	Planned	0	1,617	0
2011	Reported	3	1,617	4,851
	Difference	3		4,851
	Planned	0	1,617	0
2012	Reported	2	1,617	3234
	Difference	2		3234
	Planned	0	1,617	0
2013	Reported	1	1,617	1,617
	Difference	1		1,617
	Planned	0	1,617	0
2014	Reported	1	1,617	1,617
	Difference	1		1,617

	Planned	1	1,617	1,617
2015	Reported	80	1,617	129,360
	Difference	79		127,743
	Planned	0	1,617	0
2016	Reported	0	1,617	0
	Difference	0		0
	Planned	0	1,617	0
2017	Reported	0	1,617	0
	Difference	0		0
2018	N/A			N/A

### BMP: Non-Residential Industrial, Commercial and Institutional (ICI) Water-Use

Evaluation/Implementation

Cost: N/A before 2017; \$50 per toilet 2017 and after

Year		Units	Savings/Measure (gpmd)	Total Savings (gal/day)
	Planned	22	1,500	33,000
2007	Reported	22	1,500	33,000
	Difference	0		
	Planned	10	1,500	15,000
2008	Reported	38	1,500	57,000
	Difference	28		42,000
	Planned	0	1,500	0
2009	Reported	0	1,500	0
	Difference	0		
	Planned	0	1,500	0
2010	Reported	0	1,500	0
	Difference	0		
	Planned	0	1,500	0
2011	Reported	0	1,500	0
	Difference	0		
	Planned	0	1,500	0
2012	Reported	0	1,500	0
	Difference	0		
	Planned	0	1,500	0
2013	Reported	0	1,500	0
	Difference	0		
	Planned	0	1,500	0
2014	Reported	0	1,500	0
	Difference	0		0

	Planned	0	1,500	0
2015	Reported	0	1,500	0
	Difference	0		0
	Planned	0	1,500	0
2016	Reported	0	1,500	0
	Difference	0		0
	Planned	0	29	0
2017	Reported	81	29	2,349
	Difference	81		2,349
	Planned	0	29	0
2018	Reported	274	29	7,946
	Difference	274		7,946