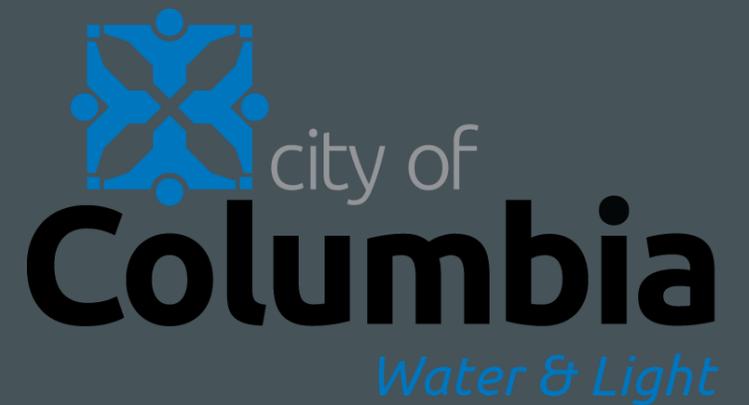

WATER CONSERVATION PROGRAMMING



COLUMBIA'S WATER CONSERVATION GOALS

- Ensure safe and reliable water supply
- Conserve water to meet future needs
- Increase longevity of our system



DEMAND PROJECTIONS

		2020	2025	2030	2035	2040
Average Daily Demand	Baseline (MDG)	16.47	18.9	21.69	24.9	28.59
	Conservation (MGD)	16.11	17.98	20.54	23.61	27.14
Maximum Daily Demand	Baseline (MDG)	28.20	32.22	36.82	42.09	48.13
	Conservation (MGD)	27.19	29.19	32.98	37.75	43.21

PROGRAMMING

Columbia Water & Light's three pronged approach:

1. Water conservation education and outreach
2. Market transformation
3. Water conservation rebates

EDUCATION AND OUTREACH

- Columbia Youth Teaching Efficiency
- Updated website to reflect water conservation as a primary focus
- Water efficiency kits for qualifying participants of window A/C exchange
- Including water conservation in marketing efforts

CONTRACTOR EDUCATION AND TRAINING

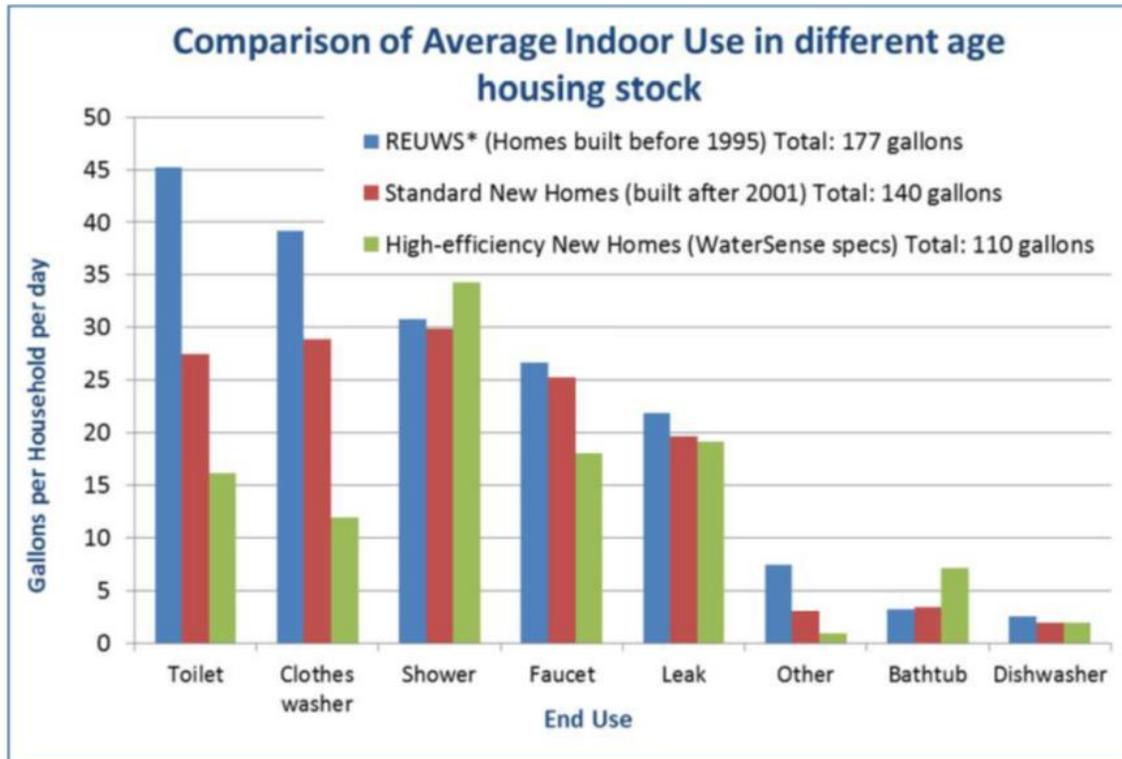
- Educate and train irrigation and landscape contractors
- Transform the local market to install water efficient products
- Coordinate efforts of City departments

ON-SITE ASSESSMENTS

Staff will work with customers to identify water conservation opportunities

- Utility bill analyses
- Water usage education
- Assess water systems and practices
- Develop conservation plans for customers
- Rebate options

INDOOR WATER CONSERVATION



- Toilets are largest user of indoor water
- WaterSense toilets use 38% less water per day
- Customers likely to replace older leaky toilets

STAFF RECOMMENDATION

Indoor water conservation recommendation:

- I. Installing replacement WaterSense qualifying toilets

Conservation Method	Suggested Rebate	Maximum Allowable
Residential Toilet	\$75	2 rebates per address
Commercial Toilet	\$100	4 rebates per address – Pre installation inspection required to do more

LOW TO MODERATE INCOME (LMI) PROGRAM

Participants will receive a water efficiency kit that will offer additional opportunities for water savings.

Kits may consist of:

- Low flow shower head
- Faucet aerators
- Garden/lawn water timer
- Toilet leak detection dye

STAFF RECOMMENDATION

LMI water conservation program recommendation:

1. Installing WaterSense qualifying toilets
2. Water Efficiency Kits

Conservation Method	Suggested Rebate	Maximum Allowable
Residential Toilet	\$200	2 rebates per address
Residential Water Kits	\$65/kit	1 kit per qualifying address

OUTDOOR WATER CONSERVATION

- Customer education
- Targeted outreach
- Contractor education and training
- Site evaluations
- Rebates

IRRIGATION SYSTEM CHALLENGES

Irrigation Systems:

- Typically open control loop
 - Water lawn regardless of weather
- Utilize standard sprinkler heads
- Cannot react to environment



STAFF RECOMMENDATION

Staff recommends outdoor water conservation program to include the following:

1. Rain sensors
2. Weather-Based irrigation controls
3. High efficiency sprinkler nozzles

Conservation Method	Suggested Rebate	Projected Savings for Customer
Rain Sensor	\$50	Up to 21%
Weather-Based Irrigation Controls	\$150 or \$25 per zone	14%-21%
Rotary/High Efficiency Nozzles	\$5/nozzle	Up to 5,600 gal per year

WATER & LIGHT WATER EFFICIENCY PROGRAM BREAKDOWN

Indoor Water Programming

	Suggested Rebate	Estimated Water Savings (MGD)
Residential Toilet	\$75	.176
Commercial Toilet	\$100	.019

Low to Moderate Income Water Programming

	Suggested Rebate	Estimated Water Savings (MGD)
Residential Toilet	\$200	See Residential Toilet Savings
Residential Water Kits	\$65/kit	.071

Outdoor Water Programming (all meter types)

	Suggested Rebate	Estimated Water Savings (MGD)
Rain Sensor	\$50	Combined savings of .16
Weather-Based Irrigation Controls	\$150 or \$25/zone	
High Efficiency Nozzles	\$5/nozzle	

Commercial and Industrial Water Assessments

	Suggested Rebate	Estimated Water Savings (MGD)
Facility Water Assessments	Managed by Staff	.095

QUESTIONS?

Brandon Renaud

➤ Brandon.Renaud@CoMo.gov

➤ 573.874.7631

BUDGET AMENDMENT

Conservation Method	Suggested Rebate	Estimated 1 st year Expense
Residential Toilet	\$75	\$30,000
Commercial Toilet	\$100	
LMI Residential Toilet	\$200	\$20,000
Water Kits	\$65/kit	
Rain Sensor	\$50	\$25,000
Weather-Based Irrigation Controls	\$150 or \$25 per zone	
High Efficiency Nozzles	\$5/nozzle	