

# This presentation premiered at WaterSmart Innovations

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# Managing a Conservation Fund

## *The Good, the Bad, and the Ugly*

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WaterReliability



# Take-Aways

- Make a case for the adoption of a use-based **Conservation Fee** to sustain water efficiency programs
- Address potential pitfalls of managing a **conservation enterprise fund** within a municipal government





# Background & Conservation Drivers

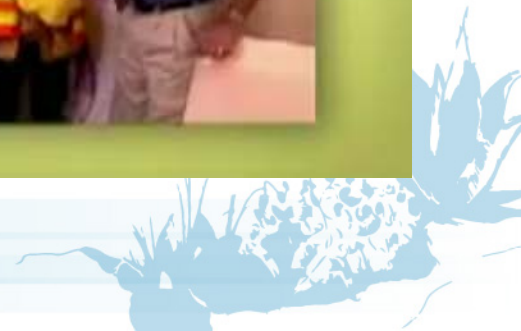


# Background & Conservation Drivers 1970s

- Unable to meet **peak demands** because of inadequate infrastructure
- Extensive use of **turf** and **high water use plants**
- **“Beat the Peak”** Campaign
  - “Never Water Between 4 and 8”
  - “Only Every Other Day”
- **Increasing block rate** structure



# The face of Water Conservation: “Pete the Beak”



# Blast from the Past “Beat the Peak” 1986



<https://www.youtube.com/watch?v=8wV5K7PS8PA>





# Background & Conservation Drivers 1980s

- Sufficient **infrastructure** improvements
- **Peak demand management** still a conservation driver
- Youth **education programs** established
- 1980 **Groundwater Management Act**
  - Arizona Department of Water Resources
  - Active Management Areas
- **GPCD** target for Tucson Water
- Emphasized **long-term reductions** in water use





# Background & Conservation Drivers 1990s

- Conservation driver remains **Peak demand management**
- Water **Conservation Office** established in 1991
- Established **Ordinances**:
  - Xeriscape Landscape
  - Water Waste
  - Emergency Water Conservation
  - Plumbing Code (modifications)
- Implemented a **toilet rebate** program
- Expanded **Water Education**



# Background & Conservation Drivers 2000s

- In 2001, Tucson Water began delivery of renewable Colorado River water (**CAP**)
- Continued the “**Beat the Peak**” program
- In 2005, a Community Conservation Task Force (**CCTF**) was convened to develop recommendations for conservation programming
- In 2008 Mayor and Council established a **Conservation Fee** assessed to all customers to fund the program



# Background & Conservation Drivers 2010s

- Tucson Water met the **conservation target** established by ADWR
- The “Beat the Peak” program was **rebranded** in 2012 to reflect the **changing drivers** of the conservation program
- The new program: “**Be WaterSmart**”
- New **Ordinances**
  - Gray Water –**Dual Plumbing** for new single family units
  - Commercial Rainwater Harvesting – **50% of the landscape**





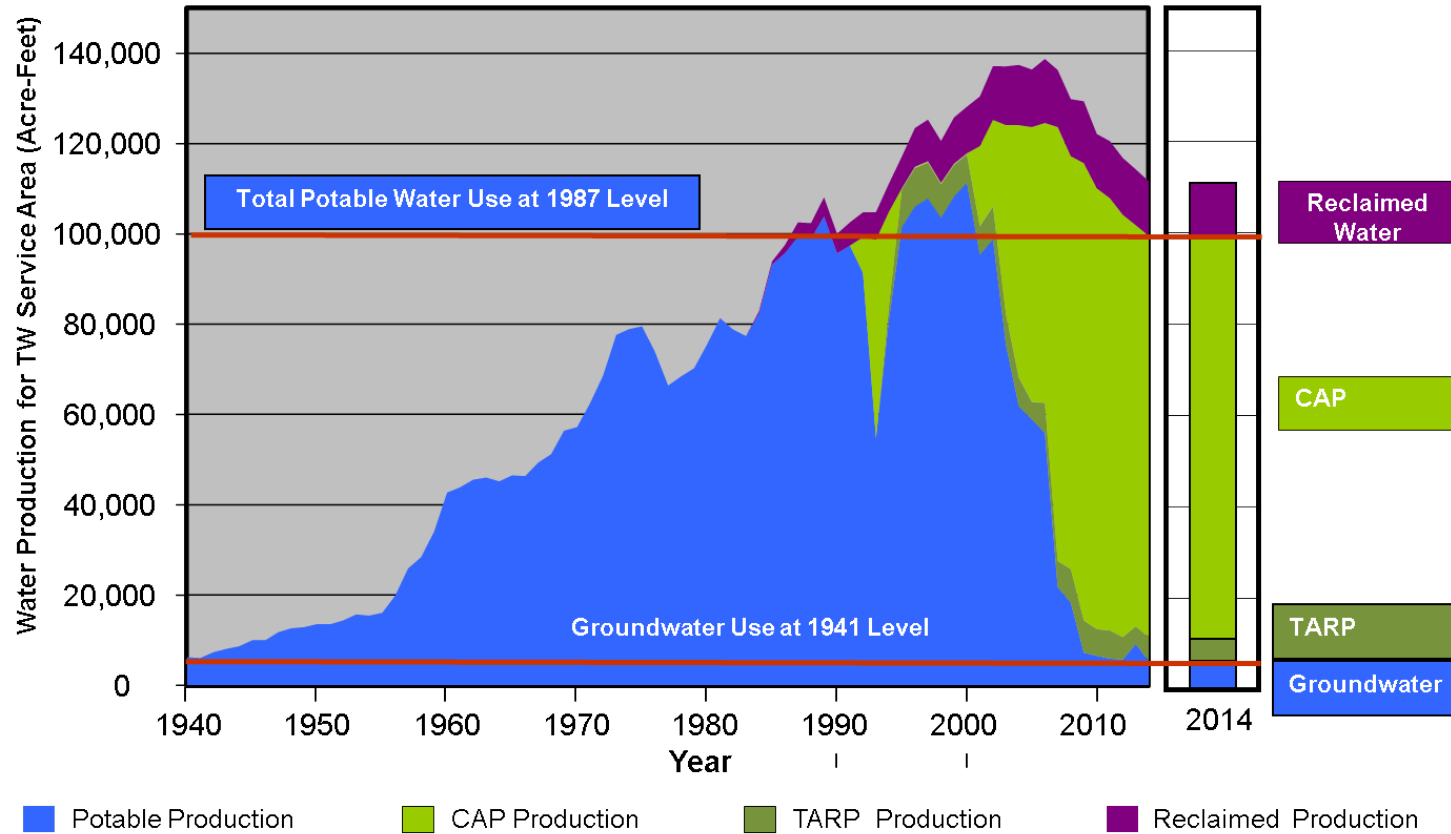
# A Progressive City: “Xeriscape is a Way of Life”





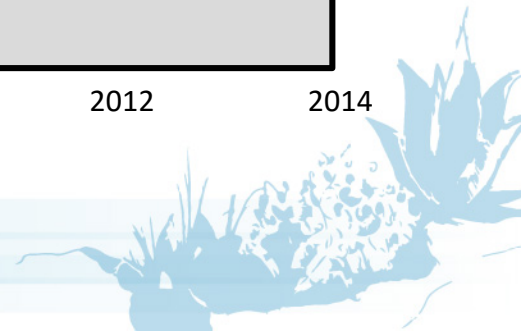
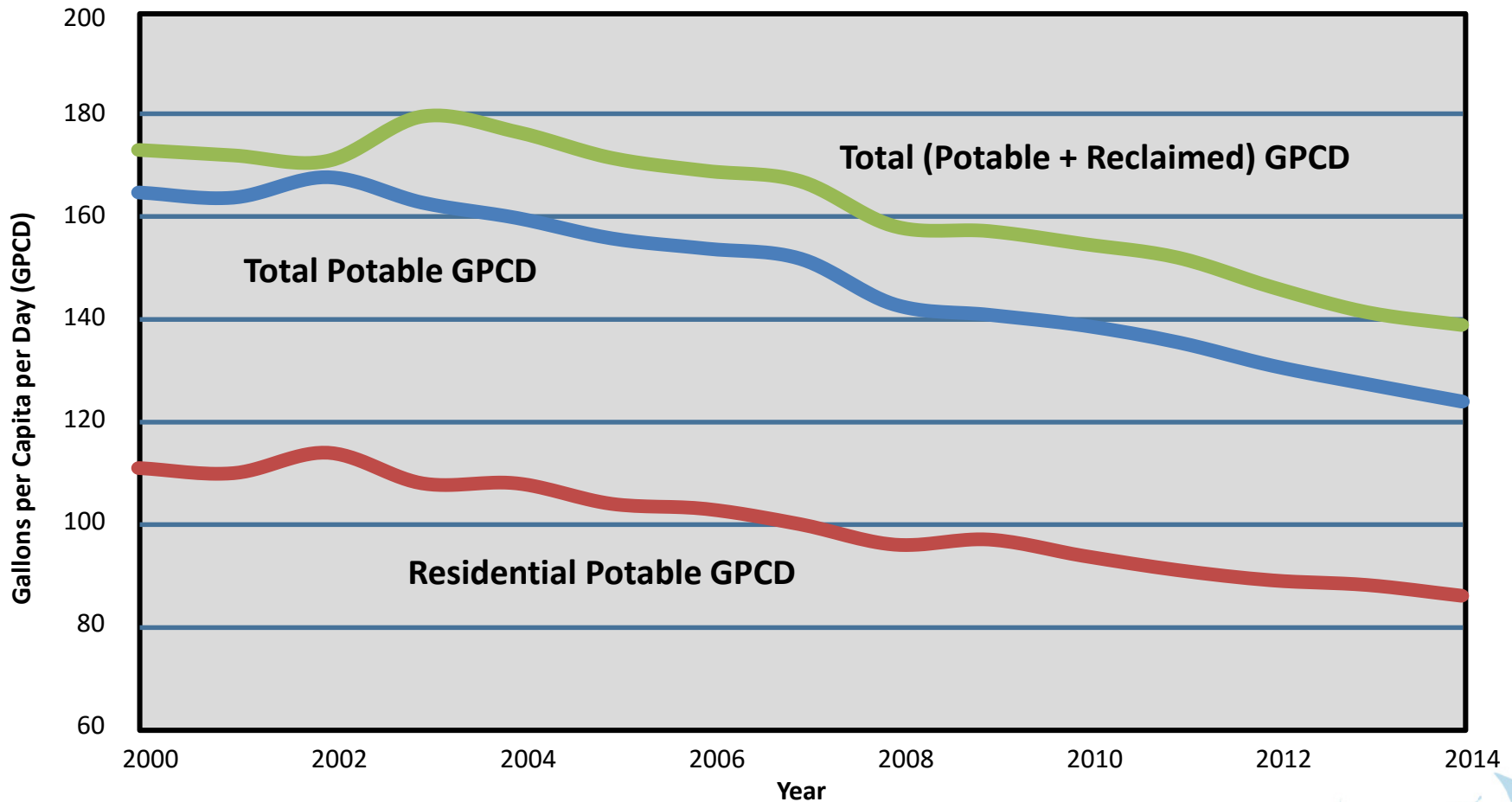
# Demand Curve

## Transition to Renewable Supplies



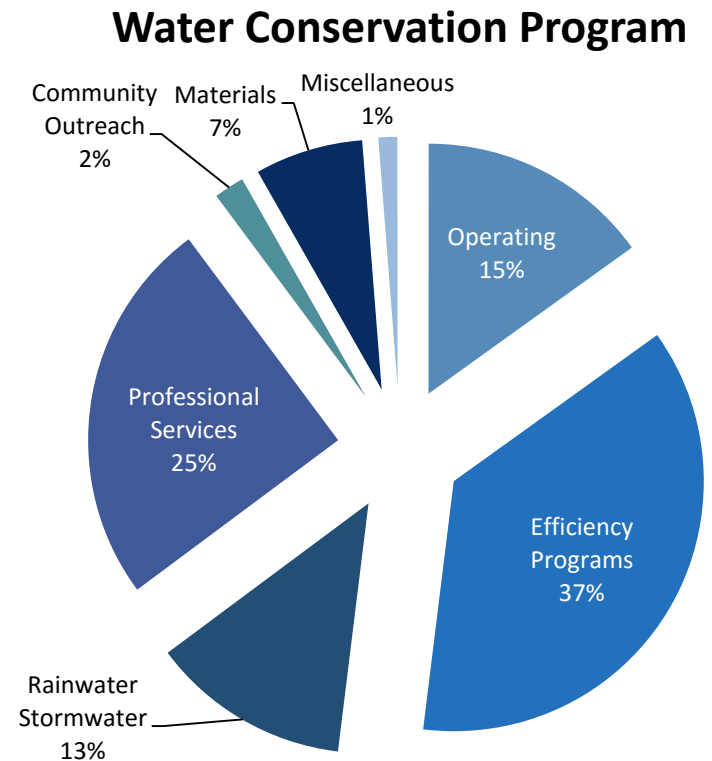
# GPCD

## Trending in the Right Direction



# Financial Independence

- Dedicated **fund** for Water Efficiency Programs
- Mayor & Council supportive of **rate structures** and **ordinances** enhancing water efficiency
- Aggressive **water efficiency** continuity **despite unfavorable economic** settings



# Conservation Fund (fee based on Ccf)

	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15
<b>Conservation Fee</b>	\$0.03	\$0.04	\$0.05	\$0.07	\$0.07	\$0.07	\$0.07
<b>Budget</b>	\$997,000	\$997,000	\$1,086,690	\$2,902,630	\$3,356,820	\$2,950,000	\$3,050,000
<b>Revenue</b>	\$1,217,280	\$1,716,880	\$2,124,838	\$2,816,241	\$2,830,967	\$2,832,950	\$2,726,208
<b>Expenditure</b>	\$794,462	\$831,883	\$1,720,075	\$1,795,082	\$2,727,541	\$2,725,288	\$2,771,450





# Rebates & Incentives

## -Totals-

### Residential

- High-Efficiency Toilet (14,237 HETs)
- Low-Income **Direct Install** (4,300 HETs)
- Rainwater Harvesting (837)
- Gray Water (66)
- Clothes Washer (**New** - 130)

### Commercial

- High-Efficiency Urinal (550 HEUs)
- Multi-Family HET (17,033)
- Commercial HET (4,332)
- Irrigation Efficiency (31)
- WaterSmart Business



# Investing in Water Efficiency

	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	Total
SF HET	\$30,036	\$254,688	\$213,543	\$142,812	\$155,473	\$202,160	\$175,923	\$1,174,635
MF HET	\$705	\$29,033	\$21,329	\$119,347	\$258,485	\$490,506	\$645,690	\$1,665,095
Comm. HET	\$299	\$37,985	\$36,688	\$25,086	\$12,948	\$28,886	\$33,554	\$175,446
HEU	n/a	n/a	\$2,000	\$1,200	\$900	\$52,400	\$156,300	\$212,800
Gray Water	n/a	n/a	\$265	\$1,566	\$4,144	\$4,678	\$14,095	\$24,749
Irrigation	n/a	\$31,089	\$52,770	\$29,792	\$48,964	\$83,676	\$600	\$246,890
Subtotal	\$31,040	\$352,794	\$326,595	\$319,803	\$580,914	\$862,306	\$1,026,087	\$3,499,615
LI HET	\$367	\$213,720	\$301,684	\$110,379	\$301,034	\$313,116	\$325,024	\$1,575,324
RWH	n/a	n/a	n/a	n/a	\$349,460	\$354,538	\$327,145	\$1,031,143
Total	\$31,407	\$566,514	\$628,279	\$430,182	\$1,231,409	\$1,529,960	\$1,688,331	\$6,106,081

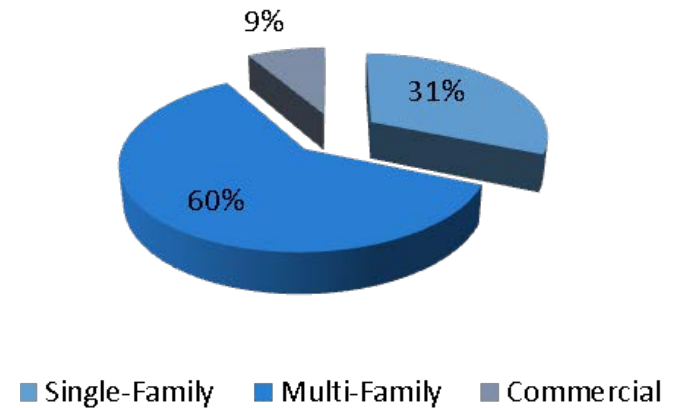


# FY15 Expenditures & Estimated Water Saved

## Expenditures/Ccf/Cost

Program	Expenditure	Saved Water (Ccf)	Cost per Ccf
Single-Family HET	\$175,923	21,717	\$8.10
Multi-Family HET	\$645,690	65,812	\$9.81
Commercial HET	\$33,554	5,684	\$5.90
HE Urinal	\$156,300	3,509	\$44.54
Gray Water	\$14,095	619	\$22.77
Low-Income HET	\$335,024	11,937	\$28.07
RWH	\$327,145	0	\$327,145.00

## Water Savings by Customer Class



# 30+ Years of Conservation Through Education





# Educational Partners



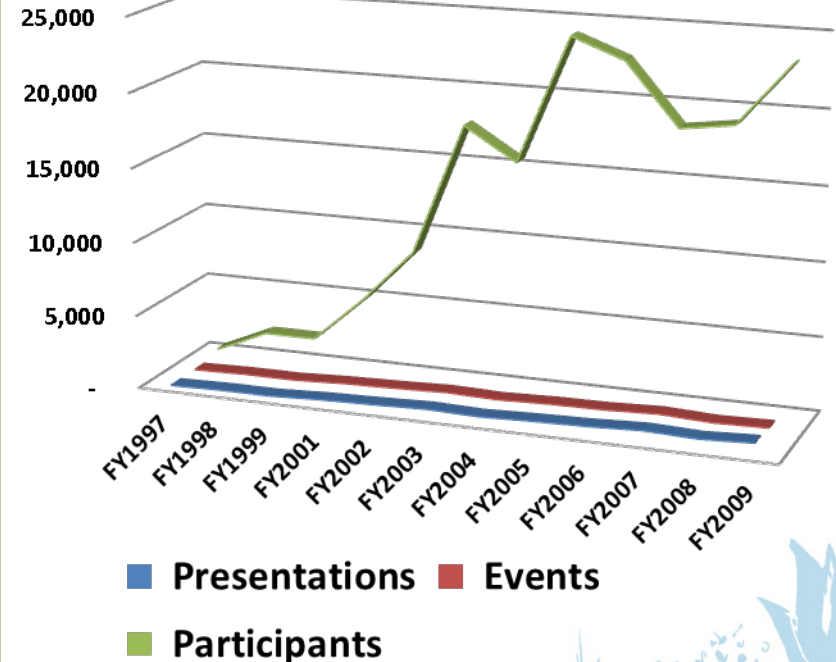
# Tucson Water Outreach

## Prior to the Conservation Fee

Interactive Presentations



Number of Participants  
FY 97 - FY 2009



# Investing in Water Education

	Arizona Project WET	Environmental Education Exchange	Pima SmartScape	Total
FY 2008-09	\$26,839	\$26,400	\$37,064	\$90,303
FY 2009-10	\$65,997	\$125,350	\$31,802	\$223,149
FY 2010-11	\$58,351	\$113,750	\$184,201	\$356,302
FY 2011-12	\$69,107	\$162,505	\$192,237	\$423,849
FY 2012-13	\$136,522	\$114,400	\$213,764	\$464,686
FY 2013-14	\$136,522	\$159,785	\$171,573	\$537,440
FY 2014-15	\$185,376	\$144,565	\$188,034	\$517,975



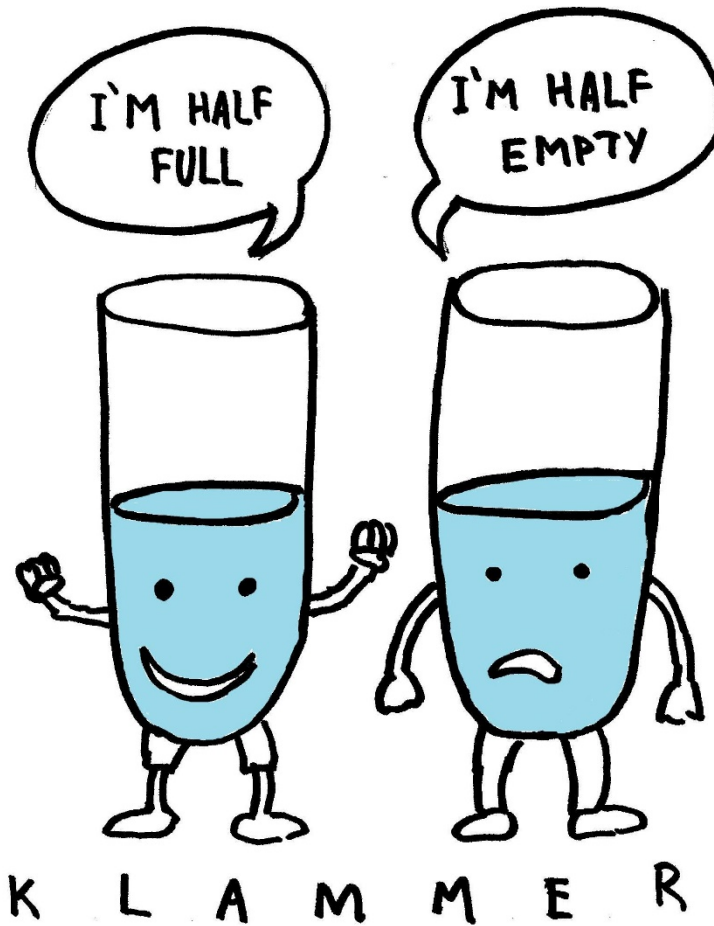
# Outreach

- Water Inspections
  - Commercial
  - Residential
- Speakers Bureau
- Guided Tours
- STEM efforts in Schools





# Perspective





# Thank You!

