



# Water Conservation Efforts, Penalty Surcharge, & Long-Term Water Use Efficiency Programs



August 11, 2016

Public Works Commission





# Water Conservation Efforts

## July 2016

- Contacted 118 continuous flow customers
- Notified 76 residents watering on the wrong day
- Assisted 34 customers with appeals and conservation questions
- Performed 14 on-site audits



# Public Education

- July 13<sup>th</sup> & 16<sup>th</sup> : Water wise plants workshops
- August 6<sup>th</sup> - Water wise preparation and design
- August 9<sup>th</sup> – Composting
- Ads in paper and on Facebook
- Continuous Outreach



# Future Outreach





# Water Reduction

Compared to 2013

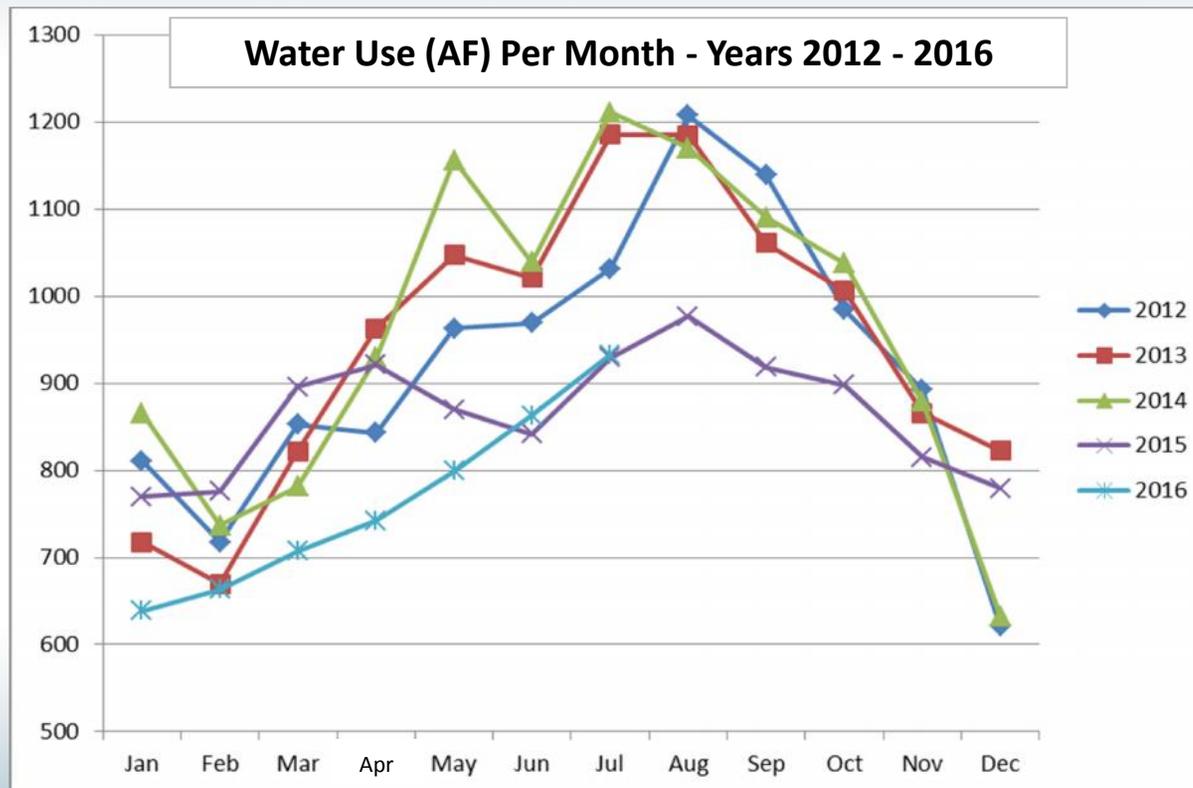
Month/Year	July 2016	July 2015
Beverly Hills	21.4%	21.6%

Month/Year	June 2016	June 2015
Beverly Hills	20.0%	21.9%
Statewide	21.5%	27.5%

Beverly Hills is holding steady  
22% average



# Water Reduction





# Penalty Surcharge

- June 22, 2016 – Penalty surcharge suspended
- Level 1 – 1,817 received; 42 pending review
- Level 2 – 712 received; 321 pending review



# Long-Term Water Use Efficiency Policy

- Evaluated various approaches to target “Excessive Water Users”
- Looked at other agencies
- Considered a framework that was effective, feasible and sustainable



# Long-Term Water Use Efficiency Policy

- Create

- Customer
- Customer
- Staff



City

Formula

visit



# Water Allowance Formula

Variables	Assumption
Average number of people per household:	4 people
Average number of gallons used per person per day indoor:	60 gallons
Property landscape area:	Estimated landscape based on GIS calculations
Evapotranspiration rate:	Sum of the evapotranspiration rate to correspond with the billing cycle period



# Outdoor Water Allowance

Maximum Applied Water Allowance” (MAWA)

$$\text{MAWA} = (\text{ETo}) (0.62) [(0.7 \times \text{LA})]$$

Calculation Item	Description
<b>LA</b>	Landscaped area measured in square feet
<b>ETo</b>	Evapotranspiration rate factor is based on water loss from evaporation in the soil and plant transpiration; based on inches per year (Los Angeles' is 50.1")
<b>0.7</b>	ET Adjustment Factor = Based on the water needed for native plants and some turf
<b>0.62</b>	Conversion factor converting square feet to gallons



# Watering vs. Plant Needs

## Plant Water Requirement



Space between the lines is wasted water

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



# Exceedance Percentage

Exceedance Factor Over MAWA	% of Accounts that Exceed the Factor within the Sample Size	Estimated Number of Accounts that Exceed the Factor within Beverly Hills
<b>1.0</b>	55%	3,225
<b>1.25</b>	49%	2,851
<b>1.5</b>	40%	2,360
<b>1.75</b>	33%	1,927
<b>2.0</b>	27%	1,573

January 2016 – June 2016  
3 Billing Cycles



# Recommendations

Based on customized needs, not historical water use

Drought Stages	Exceedance Factor
A	1.75
B	1.5
C	1.25
D	1.0
E	City Manager declaration
<b>Ongoing, Non-Drought Conditions</b>	<b>2.0</b>



## Next Steps

- **August 11, 2016:** Approve Sub-Committee's recommendation regarding Excessive Water Use policy
- **September 8, 2016:** PW Commission meeting to discuss modifications to City's water regulations (BHMC)
- **September ?, 2016:** City Council Liaison meeting to discuss Commission recommendations on the City's water regulations and policy
- **September 20, 2016:** City Council presentation



# Comments & Discussion





And now it's time to play...

*"What's the Problem?"*

