

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



FACT OR FICTION:

Are Water Savings Projections

**Real
or
Fabricated?**



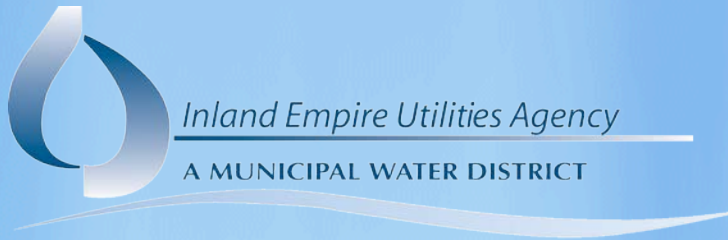
PRESENTERS:

Lisa Morgan-Perales

Water Resources Analyst II
Inland Empire Utilities Agency
6075 Kimball Avenue
Chino, CA 91708
Phone: 909-993-1520
lp Perales@ieua.org

Juan Zamora

Water Conservation Specialist III
Chino Basin Water Conservation District
4594 San Bernardino St.
Montclair, CA 91763
Phone: 909-267-3224
jzamora@cbwcd.org



Inland Empire Utilities Agency (IEUA)

- IEUA supplies imported and recycled water; collects treats, and disposes of wastewater; and provides other services to the communities it serves utility-related (renewable electrical energy, compost)
- Located in the southwest corner of San Bernardino County, IEUA's service area encompasses 242 square miles and serves a growing population of 850,000 people
- Member Agencies include: the cities of Chino, Chino Hills, Ontario and Upland, the Cucamonga Valley Water District, the Fontana Water Company, the Monte Vista Water District, and the San Antonio Water Company



Water &
Wastewater
Treatment &
Supply



Recycled
Water
Supply &
Distribution



Groundwater
Recharge

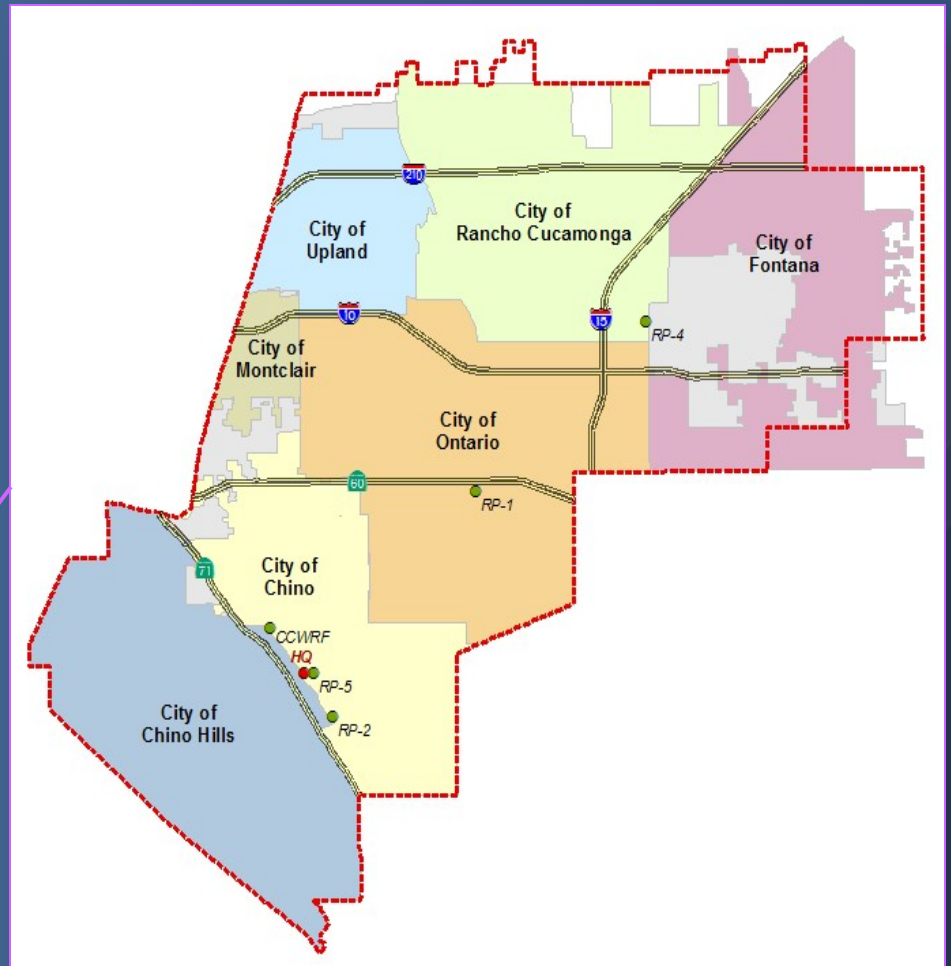


Renewable
Energy
Generation




Compost
Production

IEUA Service Area



The Water Conservation Act of 2009



IEUA Demand Management Portfolio	Population*	Target** (GPCD)	Recycled Water (GPCD)	RW & WUE (GPCD)
2010 Baseline	850,000	251	-	-
2015 (10% Reduction)	900,000	226	213	208
2020 (20% Reduction)	1,000,000	201	206	193

- IEUA has established a regional baseline and set targets that are achievable through implementation of recycled water and water use efficiency programs.

*The population projection was derived from IEUA member agencies RMPU/UWMP projections.

**The targets were developed using a 1998-2008 baseline period.

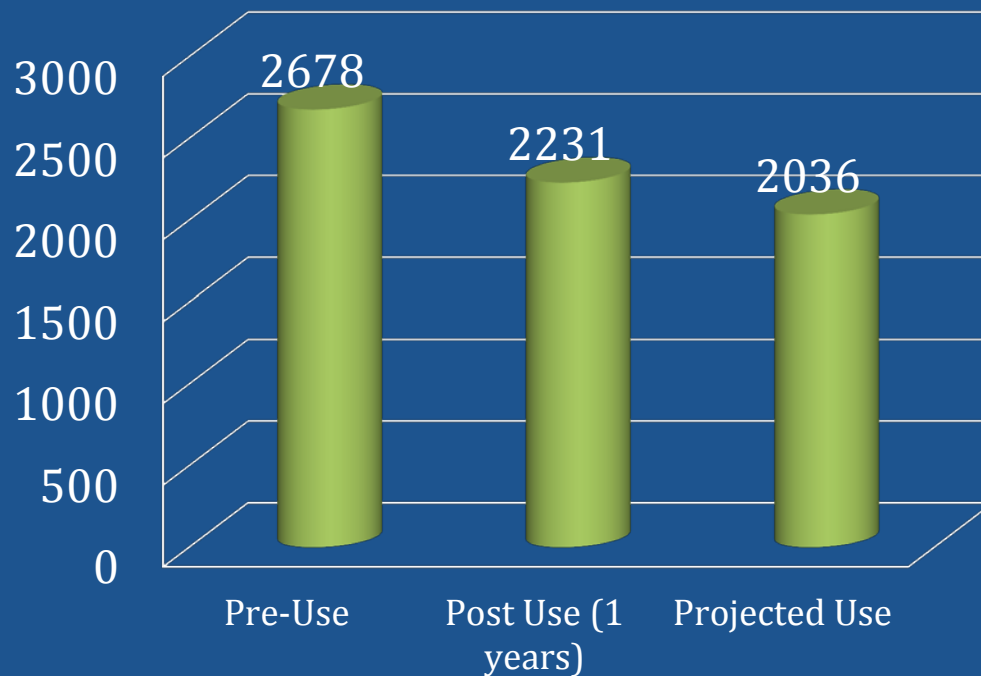
Multi-Family High Efficiency Toilet Installation Program

- 💧 Served 1,211 participants
- 💧 Installed 15,097 High Efficiency Toilets
- 💧 Projected Annual Water Savings of 642 Acre-Feet
- 💧 Lifetime projected water savings of 12,832 Acre-Feet
- 💧 Three years of water use monitoring (starting in 2006)



Multi-Family High Efficiency Toilet Installation Program

AFY

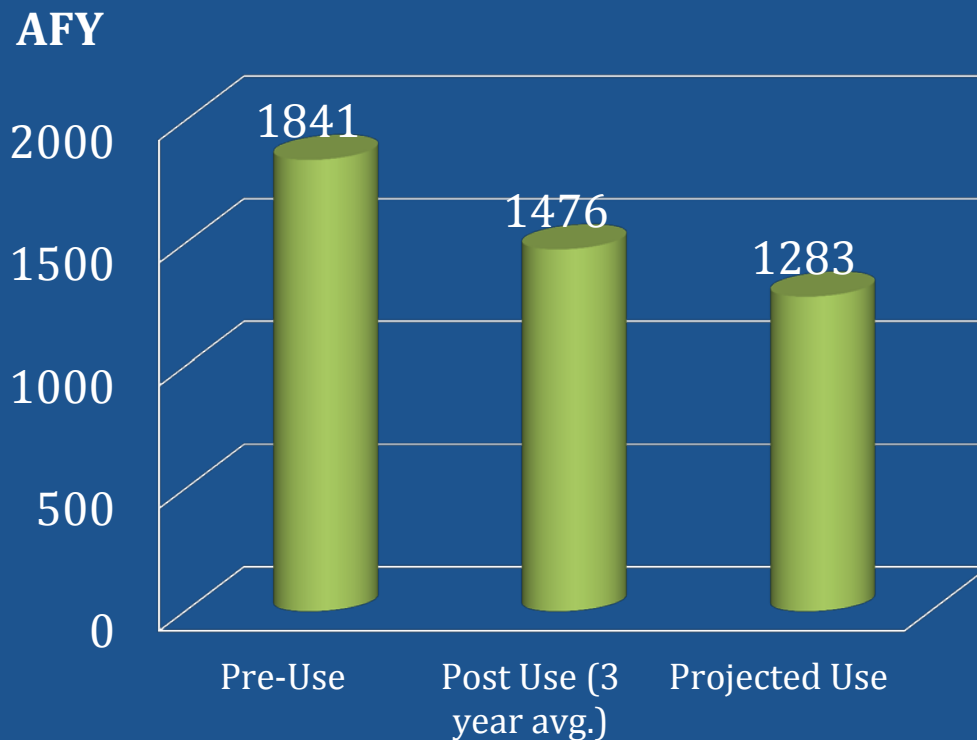


💧 Actual savings = 447 AFY

💧 Projected savings = 642 AFY



Multi-Family High Efficiency Toilet Installation Program



💧 Actual savings = 365 AFY *

💧 Projected savings = 558 AFY

* Annual average over 3 years



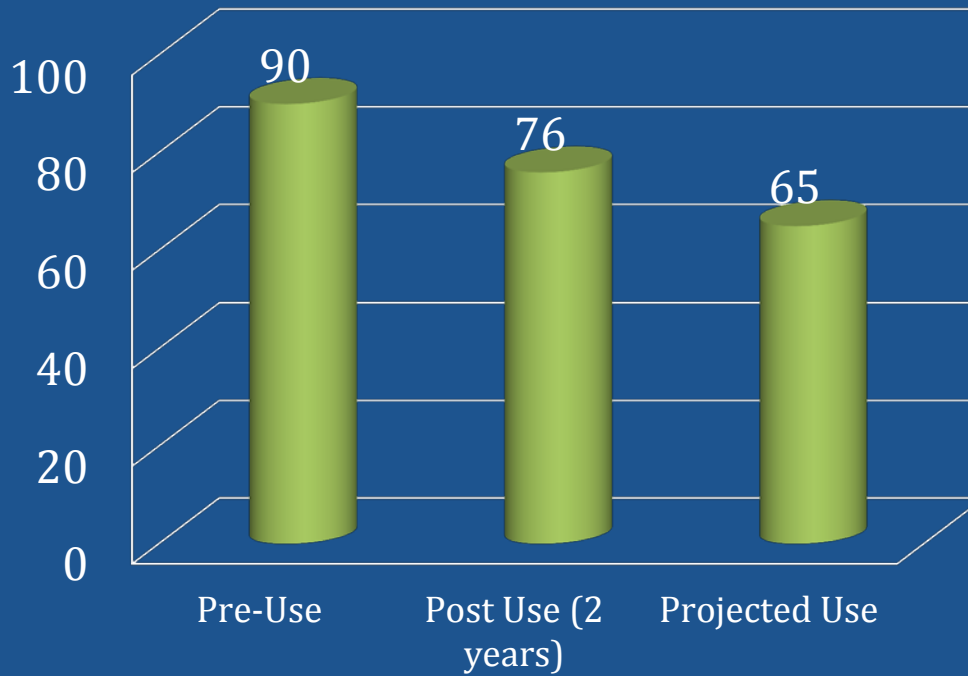
Water Wise Turf Removal Program

- 💧 Water Wise Landscape Rebate (\$2/sq. ft.):
 - Project conversion must remove a minimum of 400 sq. ft.
 - Maximum allowable rebate of \$2,000 or 1,000 sq. ft. removed
- 💧 Served 136 Participants
- 💧 Removed a approximately 182,446 Square-Feet of turf
- 💧 Projected Annual Water Savings of 25 Acre-Feet
- 💧 Lifetime projected water savings of 250 Acre-Feet
- 💧 Two years of water use monitoring (2009-2011)



Water Wise Turf Removal Program

AFY



💧 Actual savings = 14 AFY

💧 Projected savings = 25 AFY

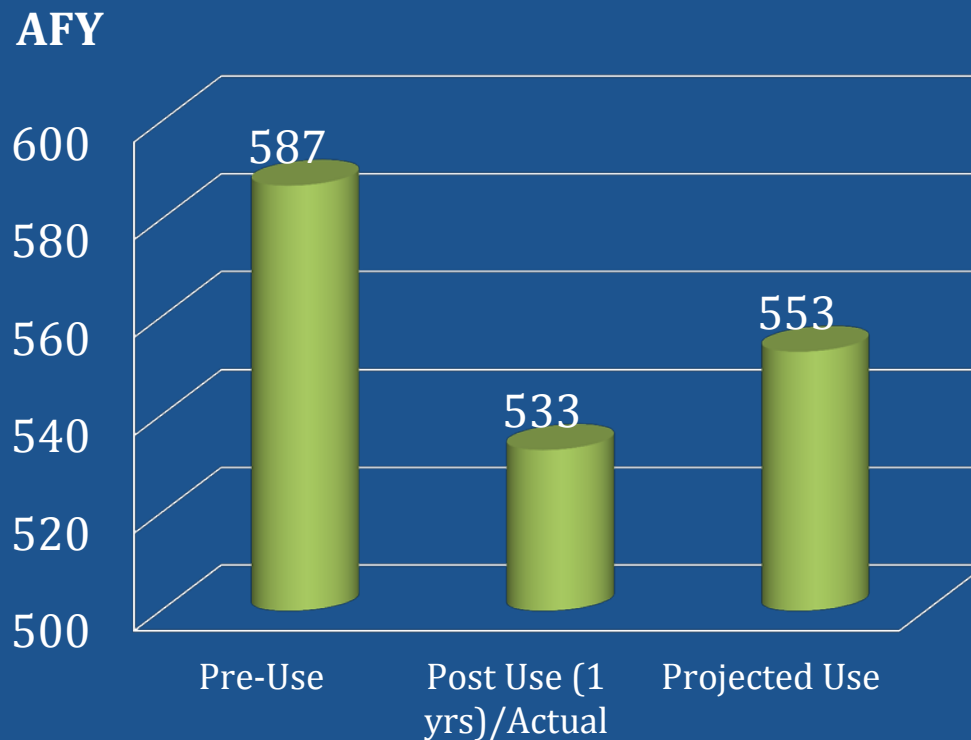


Fontana Unified School Retrofit Program

- 💧 Served 10 participating Schools
- 💧 Devices Installed
 - 1500 High Efficiency Sprinkler Nozzles
 - 13 Weather Based Irrigation Controllers
 - 295 High Efficiency Toilets
 - 91 Ultra Low Flush Urinals
- 💧 Projected Annual Water Savings of 34 Acre-Feet
- 💧 Lifetime projected water savings of 544 Acre-Feet
- 💧 One year of water use monitoring (2010-2011)



Fontana Unified School Retrofit Program



💧 Actual savings = 54 AFY

💧 Projected savings = 34 AFY

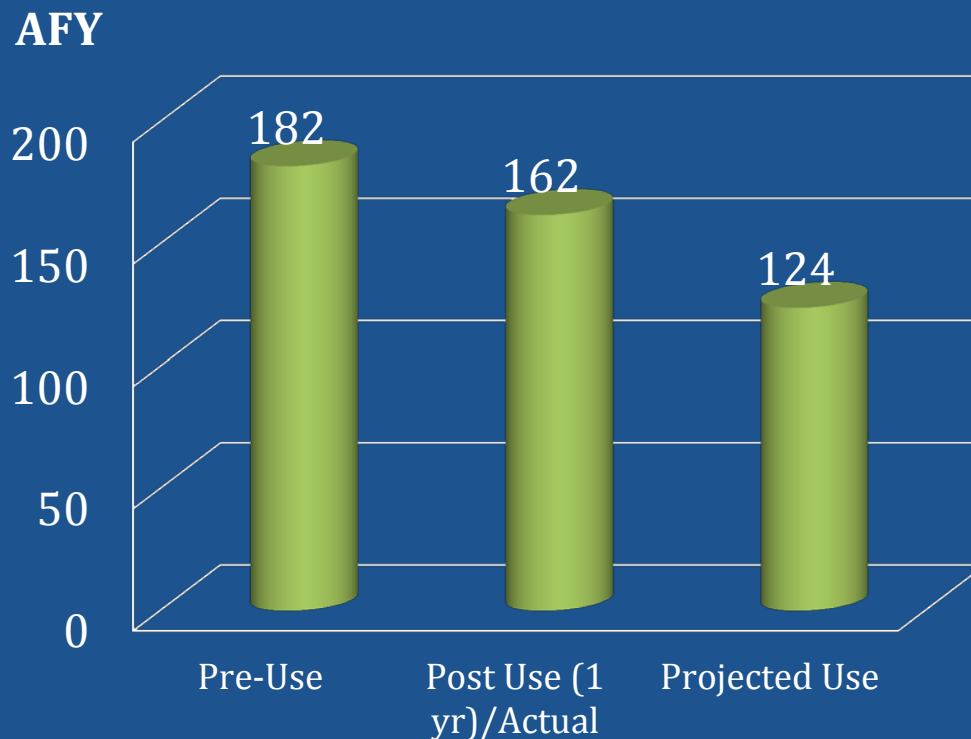


Residential Landscape Surveys and Retrofit Program

- 💧 Served 84 Participants
- 💧 Devices Installed
 - 2631 High Efficiency Sprinkler Nozzles
 - 164 Weather Based Irrigation Controllers
- 💧 Projected Annual Water Savings of 58 Acre-Feet
- 💧 Lifetime projected water savings of 523 Acre-Feet
- 💧 One year of water use monitoring (2010-2011)



Residential Landscape Surveys and Retrofit Program



💧 Actual savings = 20 AFY

💧 Projected savings = 58 AFY



Freesprinklernozzles.com Voucher Program

- 💧 Served 961 Participants
- 💧 Distributed 24,661 High Efficiency Sprinkler Nozzles
- 💧 Projected Annual Water Savings of 99 Acre-Feet
- 💧 Lifetime projected water savings of 493 Acre-Feet
- 💧 One year of water use monitoring (2010-2011)

Coming March 1st:

Free

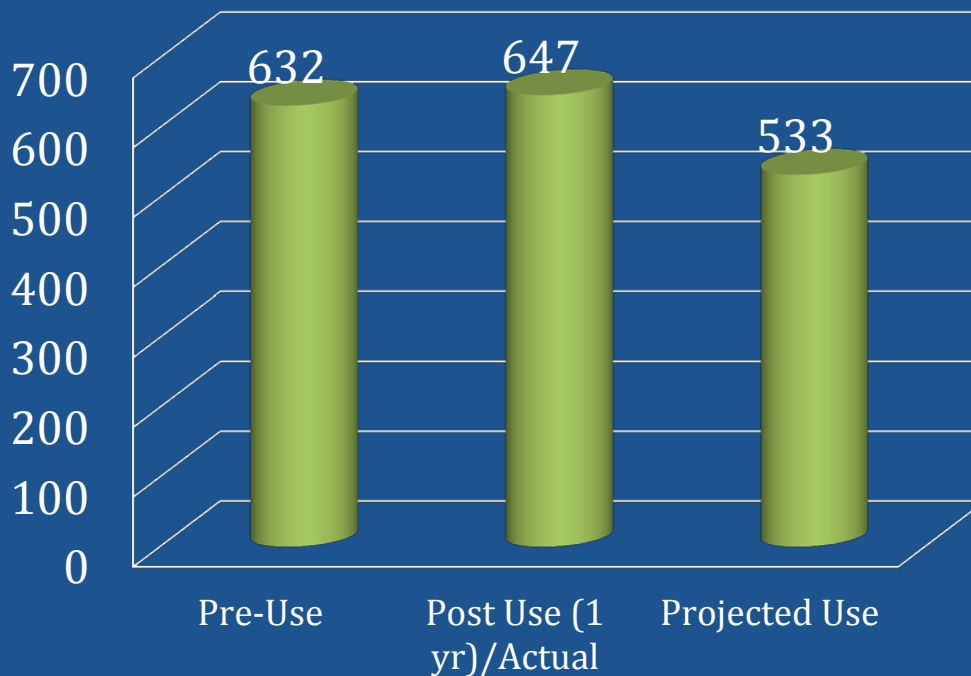
Supplies Will Be Limited!

SprinklerNozzles.com

**Save Water
Save Cash**

Freesprinklernozzles.com Voucher Program

AFY



💧 Actual savings = -15 AFY

💧 Projected savings = 99 AFY



Coming March 1st:

Free *Supplies Will Be Limited!*
SprinklerNozzles.com

Save Water
Save Cash

FINDINGS & OBSERVATIONS

- Distribution and Voucher Programs may have a low installation rate, resulting in no water savings and are difficult to quantify cause
- Direct Installation Programs are expensive, but guarantee device installations and almost certainly produce some water savings
- Distribution and Voucher Programs should require some form of verification of installation with the least amount of cost
- Turf removal programs should include specific guidelines that will produce the desired outcomes resulting in the greatest water savings potential (payback long-term)





JUAN ZAMORA
jzamora@cbwcd.org

LISA MORGAN-PERALES
lp Perales@ieua.org