

Inland Empire Utilities Agency Regional Water Use Efficiency

Business Plan

February 24, 2016

Agenda

- Evaluation Process
- Regional Demand
- Regulatory Compliance
- Past Performance
- Market Conditions & Opportunities
- Possible Strategies & Tactics
- Potential and Selected Programs
- Five Year Plan

... a quick look back



Gone are the days of...

- Inefficient showerheads
- An unsaturated toilet market
- Low efficiency washers
- “cookie cutter” rebates

Today's Opportunities are...

- Landscape and Irrigation
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The Problems with Landscape & Irrigation...



Different site sizes, designs, plant types,
irrigation system types, microclimates, customer
knowledge levels

...and lots of customers don't over irrigate.

Just around the
corner...



... Are New Tools and Technologies

- Affordable GIS Mapping & Aerial Imaging
- Smart Software - Computes Info Accurately & Efficiently
- Website & Mobile Interactive Customer Apps
 - Shown to be Effective & Least Cost Option
- The Tech World is Here & Available to Help

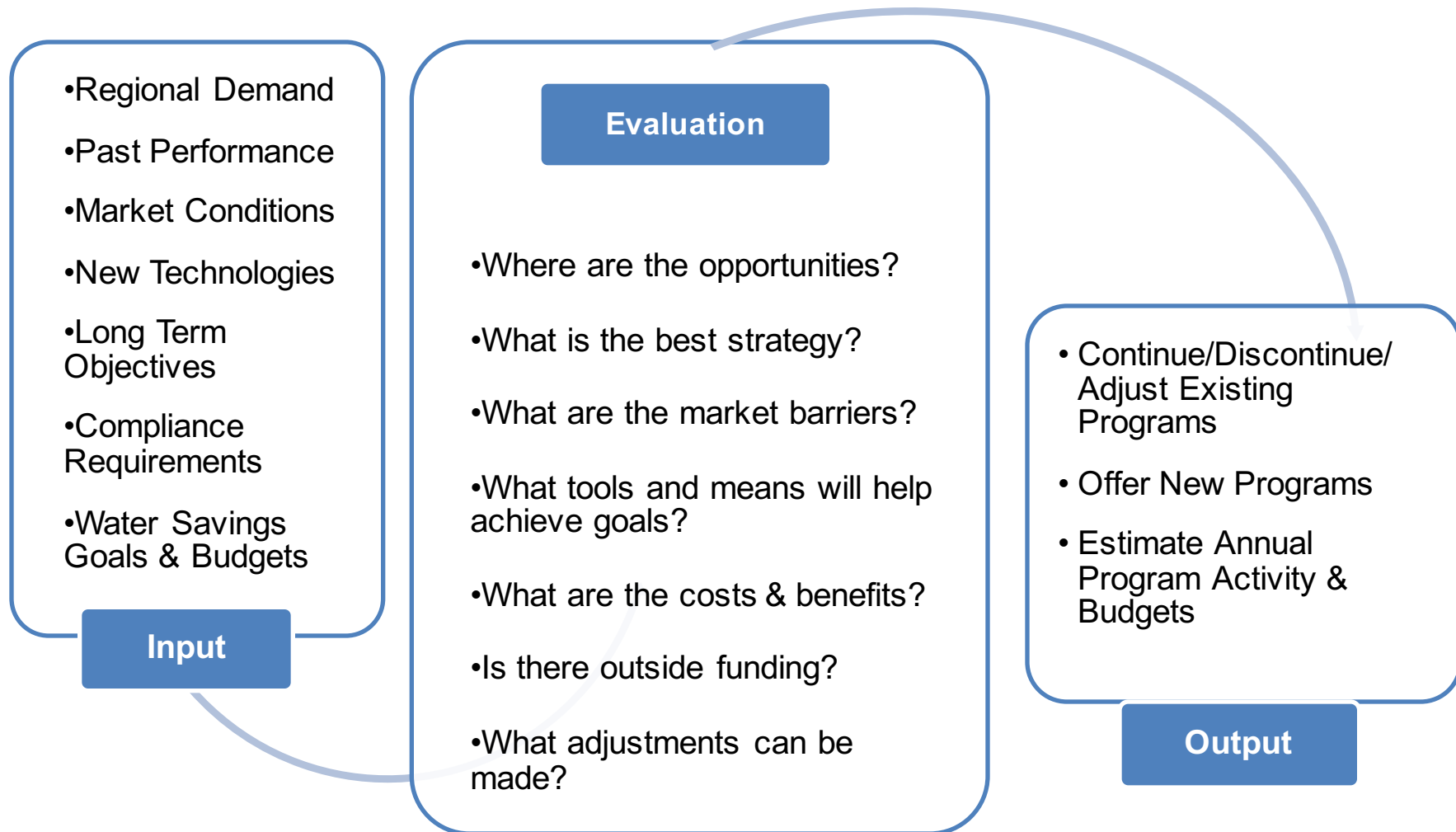
Looking Ahead...



With a New Vision...

- Target inefficient use & not just any customer
- Utilize some of the great new technologies on the market
- Re-think traditional ways & try new approaches

Evaluation Process



Regional Demand

Estimated 66% of Use is Outdoors

Customer Type	Annual Consumption	Customer Class Share of Total Demand	Estimated Outdoor Use
Single Family	112,171	48.5%	70,071
Multi-Family	27,818	12.0%	9,314
Commercial	32,010	11.1%	14,959
Landscape	31,119	13.5%	31,199
Other	27,893	12.1%	27,893
Total	231,092		153,435

Residential and Landscape Top Targets.

Program Performance - Water Savings

Measure	Lifetime Savings (AF)	% of Total Savings
High Efficiency and ULF Toilets (all markets)	49,347	55.35%
Smart Controllers (all markets)	8,581	9.62%
High Efficiency Clothes Washers (all markets)	6,669	7.48%
High Efficiency Nozzles (all markets)	5,966	6.69%
Fontana USD Retrofits	4,170	4.68%
Ultra Low Volume Urinals	4,155	4.66%
Residential Landscape Retrofits	4,104	4.60%
Turf Removal (all markets)	2,911	3.26%
Landscape Evaluations	1,855	2.08%

* Savings Represent all Programs Local and Regional: FY 2002 - 2015

Indoor Measure Saturation

Single Family	Toilets	Clothes Washers
Total Devices	390,324	161,925
Remaining (Non-Efficient) Devices	83,383	75,932
Devices Actively Retrofitted	18,940	15,359
Devices Passively Retrofitted	288,001	70,633
Saturation	79%	53%

Multi-Family	Toilets	Clothes Washers
Total Devices	117,559	29,771
Remaining (Non-Efficient) Devices	Very few	16,785
Devices Actively Retrofitted	31,534	NA
Devices Passively Retrofitted	94,956	12,987
Saturation	Near 100%	44%

Indoor Measures No Longer Top Potential.

Regulatory Compliance

Regulatory Statute	Requirements	Approach	Status
Assembly Bill 1420	Mandatory BMP Compliance	Lines up with actions taken to meet CUWCC BMP compliance	In compliance – requirement sunsets July 1, 2016.
20x2020 (SB X7-7)	Reduce per capita water use by 10% by 2015 AND Reduce per capita water use by 20% by 2020	Implementing active water use efficiency programs and policy Initiatives.	2015 Target = 226 2015 Reported = 188 2020 Target = 201 2020 Projected = 193
Governor's Executive Order Regulations	Mandatory 4 – 36% reduction of residential per capita water use	Each member agency is designated a mandatory % reduction.	Collective % Goal = 28% Collective % Saved = 29.5%

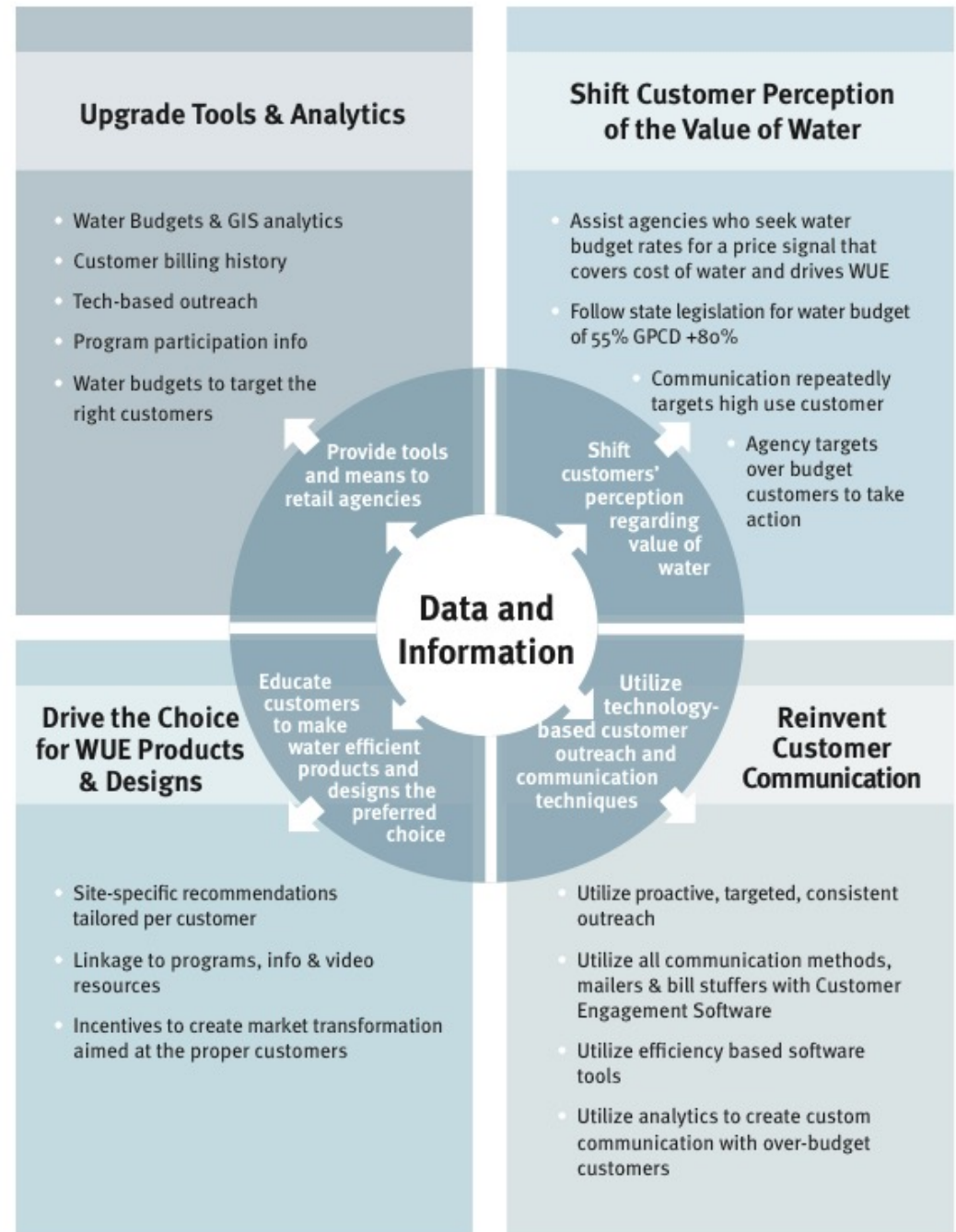
IEUA's *Best* Water Use Efficiency Opportunities

**Landscape water savings
for ALL customer classes.**

Possible Strategies

Goal:

To achieve permanent WUE by creating a new resource value for water in the eyes of the end user

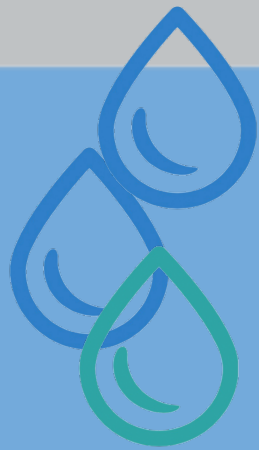


Best Measures Available Today



Budget-Based Water Rates
Customer Engagement Software
High Efficiency Nozzles
Drip Irrigation
Turf Removal
Smart Controllers

Up and Coming



Pressure Regulation
Irrigation Repairs
Leak Detection / Flow Monitoring

Potential Programs

Existing Programs

- SoCal Water\$mart Rebates
- HE Toilet Direct Install
- Turf Removal Incentives
- Smart Control Direct Install
- HE Nozzle Voucher and Direct Install
- Landscape Evaluations

New Programs

- Submetering
- Graywater Incentives
- Pressure Regulation Incentives
- Irrigation Repair Incentives and DI
- Leak Detection and Flow Monitoring Incentives
- Budget-based Rates
- Customer Engagement Technology

Focus on Landscape & Irrigation.

Eliminated Potential Programs

Eliminated Existing Programs

- HE Toilet Direct Install
 - Market is saturated
- Turf Removal Incentives
 - Until outside funding is secured

Eliminated New Programs

- Submetering
 - Extremely costly
 - Reading meters and billing is complicated
- Greywater Incentives
 - As a retrofit option, not cost effective
- Irrigation Repair Incentives and DI
 - Savings are not known
 - Hard to set average incentive
 - Potential liability
- Leak Detection and Flow Monitoring Incentives
 - Savings are not known
 - Many solution require expensive digging

Selected Programs – Cost per Acre-Foot

Portfolio Costs
= \$52 per AF

**Regional cost to IEUA only*

Measure	Cost per AF
Budget-Based Water Rate Structure	\$0
Residential Landscape Retrofit Program	\$0
Turf Removal \$2.00	\$81
FreeSprinklerNozzles.com Voucher	\$185
Customer Engagement Software	\$190
SoCal WaterSmart Rebate Program	\$248
HE Nozzle Direction Installation Program	\$931
Landscape Evaluation Program	\$1,286
Residential Smart Controller Upgrade Program	\$2,215

Plan Overview

Plan Overview

Regional IEUA Cost per Acre-foot	\$52 per acre-foot
Five-Year Water Savings (active programs)	33,554 acre-feet
Lifetime Water Savings (active programs)	147,836 acre-feet
Five-Year Total Budget*	\$7.5 Million

**IEUA costs only, includes education and outreach costs*

Next Steps

- Review WUE Business Plan with Agencies
- Finalize Plan
- Present Plan to Board on April 13th