Best Practices Development Guide *for*
The City of Goodyear

Alex Bird, Leah Castle, Eryck Garcia, Yann Raymond and Zoë Stein

ASU SCHOOL *of* SUSTAINABILITY

Agenda

-Problem and Task

-Process and Discovery

-Our Suggestions:
+Proposed Standards
+Public Awareness Campaign
+Proposed Incentives

-Possible Resources
and Revenue

The Problem & Assigned Task

- Unsustainable/Excessive water use within the city.

- Create list of Recommendations/Set of standards for "best practices" targeted at Developers

Our Process

- **Stakeholder Meeting**: Mark Holmes, Phone and In-Person

- **Site Visit**: Public Spaces and Neighborhoods

- **Online Researched**: Documents from the Goodyear and other scholarly articles

- **WaterNow Summit**: Attended and met with Municipal Water Leaders about Innovative and Affordable Water solutions

Basic Discoveries

- 60-70% of water use goes towards outdoor landscaping

- Currently: No turf removal program/ Landscaping Preference/Suggestion from the City

- Currently: No targeted approach to water conservation

- Popular support for the Preliminary Tree Plan

We propose going after three different targets

Developers   Individuals   Neighborhoods
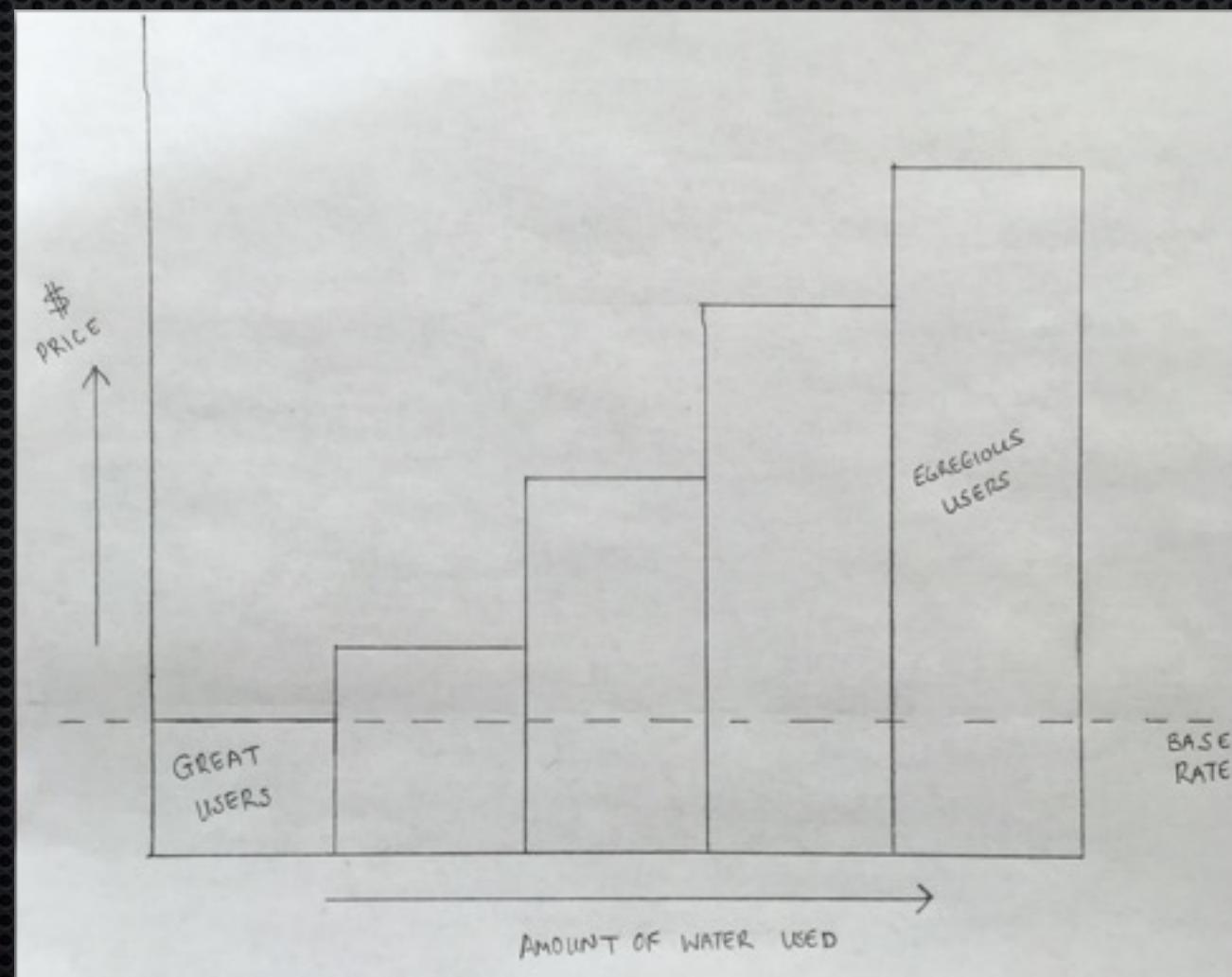
Suggested Set of Standards

The Target: Developers

- Platinum: <1% or Zero Augmented Water (Storm Water Capture)

- Gold: 10% of Lowest Water Use

- Silver: >10%-25% of Lowest Water Use

- Bronze: >25%-50% of Lowest Water Use

- +50% non certificate-holder

Water Stewardship Champion

CITY OF
Goodyear

Certified
GOLD

- **Existing Development:** Less water through bracket tier system

- **New Development:** Xeriscaping on all new developments or raise rates on turf coverage

Launch Public Awareness Campaign

The Target: Individuals

- A handful of Powerful Quotations and a #hashtag

- Change the Functional Unit -> Water bottles

- Measure it to Manage it and Gentle Shaming 😃 😟

Make it Fun with Tangible Rewards

Target: Neighborhoods

- **Cash For Grass Program:** $ per square foot of turf removed and discounted rate for xeriscape transition

- **Neighborhood with least total water** use gets rewards towards "their" (inferred ownership) park

  Preliminary Tree plan comes in here!

Preliminary Tree Plan

- Vast majority want more trees

- Can save $$$ and more than double return on investment

- Many more societal benefits

Black Brush Acacia

- Most effective form of shade coverage

- Combats UHI Effect

- Increases walkability

- Reduced Soil Erosion
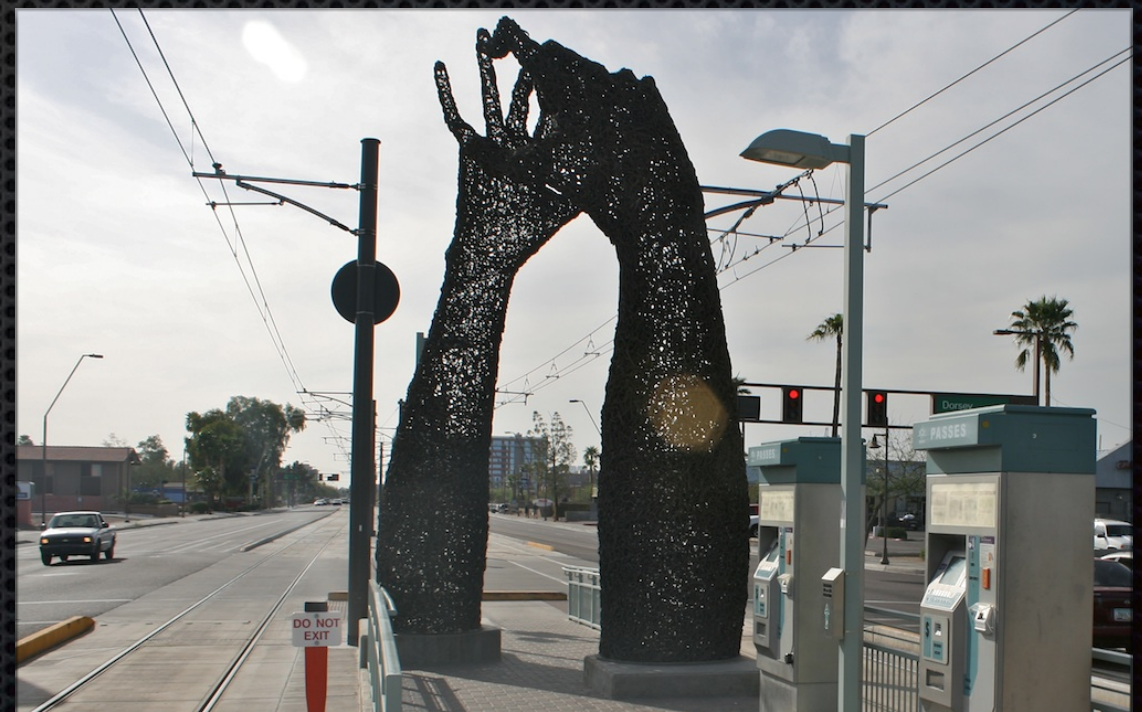

Foothills Palo Verde

Water saved can be relocated to the tree project and still have a lower net water use through smart tree management

Blue Palo Verde

Actual park in Goodyear

3D shade structure (Tempe)

Potential Resources and Opportunity

- **The Water Index**: Produces scorecards on the water resilience of cities and towns in the Southwest

- **The New Arizona Prize**: *Water Innovation Challenge* ($250,000 Available)

- **Financing Sustainable Water**: Alliance for Water Efficiency

- **WaterSmart Software:** Connecting Utility Data to External Data

Thank You

And
Good Luck!