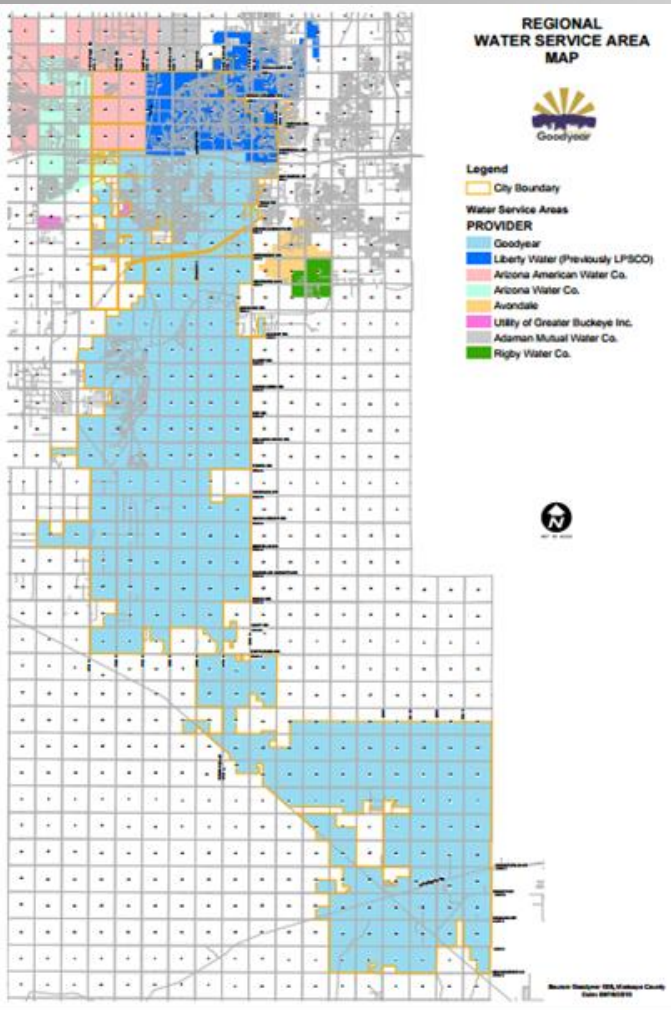




Water Conservation



Our Project:

What our project is:

- Water conservation in Goodyear, AZ

Community Partners:

- Mark Holmes
- Water Conservation Committee

Sustainability Challenge area / problems:

- “Water supply and demand” (WCP 008)
- Long-term water security



Project Objective:

- Identify plan to reduce city's groundwater demand
- Identify resources to lower city's per capita daily demand of water

Research Methods:

- Marketing strategies research
- Case study research
- Stakeholder outreach
- Site visiting



Project Progression:

- Visiting Goodyear
- Research existing / proven solutions
- Pros / Cons of each potential solution





Our Findings:

- An Education campaign lead by the city as an example to follow




Conservation Campaign



Water Conservation


The city recognizes the need to save and conserve our water supply. We have switched all public areas to an every other day watering schedule. This will conserve thousands of gallons per day.

FREE WATER CONSERVATION CLASSES



623 - 932 - 3010
<http://www.goodyearaz.gov/>

Set all outdoor water to run every other day. This will save your money, as well as ensure a lasting supply of our most vital resource.



With the limited budget in mind, an educational marketing campaign lead by the city is the current best option for conservation of outdoor water. Following these campaign guidelines, Goodyear can potentially save thousands of gallons of water per day. Using the existing resources and structure of free classes, our plan is to incorporate this along with education to water use in the desert.

SAVE WATER



utilize Desert
Landscaping



FREE WATER
CONSERVATION
CLASSES

623 - 932 - 3010
<http://www.goodyearaz.gov/>



Every

Drop
counts

All city property
has been
reduced to an
every other
day watering
schedule.



Join Goodyear's effort
to save water. Reduce
your monthly bill while
conserving our most
vital resource.

FREE WATER
CONSERVATION
CLASSES

623 - 932 - 3010
<http://www.goodyearaz.gov/>

Lawn / Landscape Signs



Simple, yet effective. With a print budget, these signs can easily be distributed around the city, including government, commercial, and residential properties. The signs go along with the conservation branding that the flyers are based off of.



“Water Budget” tool plus community-based social marketing

- Information alone rarely motivates behavior
- Capitalize on person-to-person social interaction

Case Study: College Station, Texas

- Assesses the efficacy of the “water budget” tool
- A persuasive information-based policy instrument



Research Methodology:

- Divide and conquer approach
 - Education
 - Stakeholders
 - Incentives
 - Marketing campaign
 - Case studies and benchmarking
- Consolidate individual findings to create a feasible solution recommendation
- Note contingencies and areas for improvement



Research Findings: Social Trends

- Landscape choice preferences among different population groups
- Social norms
- Family and community values
- Information, feedback, and in-person communication



Solution Implementation:

Key Resources:

- Staff and/or volunteers
- Distribution of information and feedback loops
- Community leaders, organizations

Contingencies:

- Gaining community buy-in
- Managing project scope given limited resources and budget
- Ensuring flexibility for continuous improvement



Potential Solutions:

Throughout our research, there were many potential avenues discussed that could be considered a possible solution. Here are a few examples of programs that could possibly be implemented in various combinations, depending on the city's resources, timeline, and short-term vs. long-term goals:

- Dual metering
- Fines for excess outdoor water use
- Desert landscaping incentive programs
- Water bill credits for removing lawns and replacing with desert friendly vegetation



Personal Lessons learned:

- No single solution is a panacea for achieving water conservation, and especially when working with a minimal budget, the right mix of programs will likely be the only feasible way to address the issue. When trying to optimize outcomes, key factors to be considered are those that relate to motivating desired behaviors (social, cultural, community values, etc.)
- Identifying the most effective mix of programs (incentives, marketing campaigns, etc.) will require trial and error implementation runs.



Challenges to be faced:

- Funding is an ongoing challenge
- Effective conservation incentive programs often require financial incentives
- Goodyear's funding is currently set up in a tier system; may encourage gaming the system
- The people who fall into the bracket of the highest income are charged the most for water then those funds are used for conservation incentives



What is still unknown:

How we could improve the project

- Deeper knowledge of other cities' incentive plans and structure/level of funding (gov grants, county or state funding)
- The effectiveness of increased publicity with regard to increasing awareness. Is there a point where returns do not increase or maybe even decrease due to residents tuning out old information, much like decentralization to commercials?
- The residents of Goodyear as well as our peers and stakeholders can contribute by continuously monitoring their outdoor water use.





Questions / Comments