



# Goodyear curtailment Plan

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# Goals Overview

Increase the effectiveness of groundwater regulations made by the City of Goodyear, during times of water scarcity

Improve the City of Goodyear's ability to sustainably consume their groundwater in the event of a water shortage

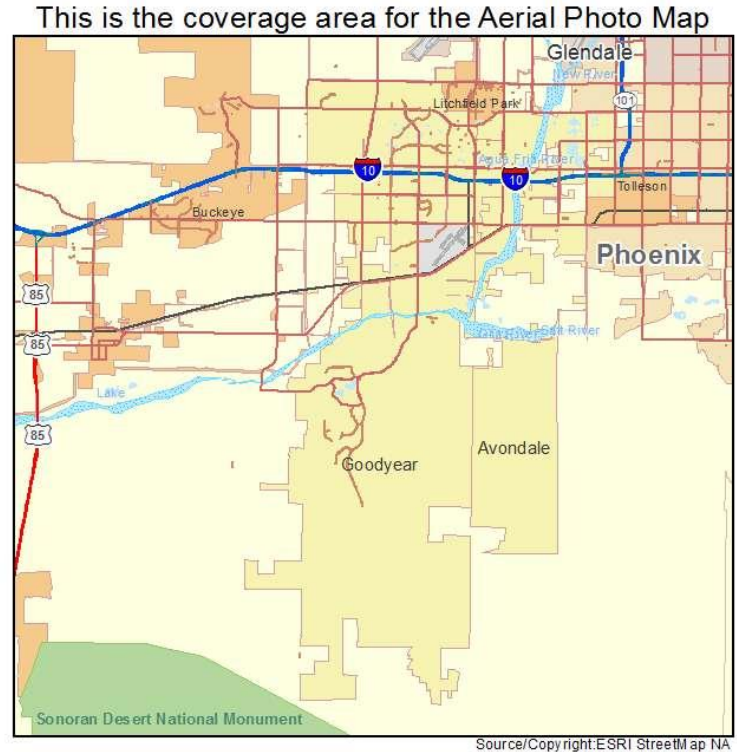
Improve and update the city of Goodyear's curtailment plan, by increasing regulatory policies and minimizing water loss in the event of drought or increased demand.

# City of Goodyear Overview

Relies strictly on groundwater for  
potable water

History of city groundwater  
pumps breaking

No data on groundwater



# Research focus

groundwater monitoring and data

enforcement of curtailment plan

stakeholder definitions

# Methods for Research

Discussed in a group our thoughts and ideas about improving the curtailment plan.

Each member researched an aspect of Goodyear's water management and curtailment action plan.

Developed solutions to improve Goodyear's drought resiliency

Met with stakeholders such as farmers and design engineers who have dealt with drought and

# Stakeholder Definitions

- Be more specific about the word residence.
  - Break it down to by household type or individually
  - Each resident category can have its own plan of action
- Commercial and Industrial stakeholders
  - Is the agriculture sector exempted from any restrictions?
  - According to the EPA the farmland in Goodyear is irrigated through reclaimed water.



# Stakeholder Definitions

Commercial and Industrial

Spring training baseball field.

Experience water restrictions?



Are schools exempted as well?

Schools should be included in the plan due to several benefits

They can be taught how to take precautionary steps to conserve water.

Shows the importance of conservation

Which can make a lasting impression

Schools should be their own user category in curtailment plan

# Groundwater Monitoring

Monitoring of a common-pool resource helps  
improve proper management of the resource

volume

Quality

Regeneration rate

Goodyear is located within the Phoenix AMA

Focus on groundwater use and its management



# Groundwater Monitoring Solutions

Strategically place monitoring systems within wells across Goodyear, as well as the reclamation sites.

To obtain the broadest amount of data on the groundwater

Petition to the Groundwater User's Advisory Council to oversee the implementation of the monitoring system

# Enforcement of Curtailment Plan

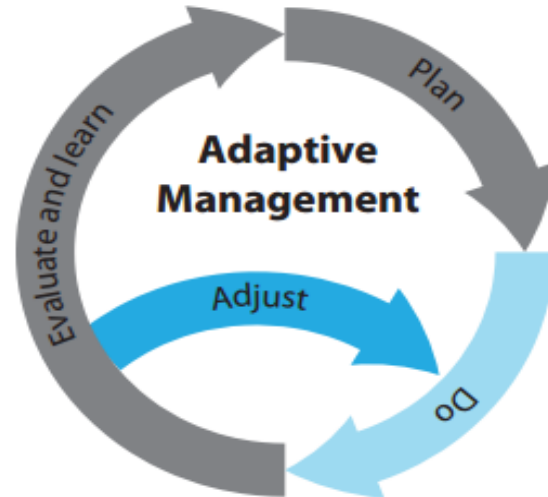
- Education/Awareness: Signs informing citizens of impacted groundwater areas to restrict water use. Community outreach/Social Media.
- Modeling enforcement after Groundwater Sustainability Agencies (GSAs) in monitoring and cataloging the status of each groundwater site, as well as the ability to allocate city or state resources in the later stages of the curtailment plan.
- Utilizing community and city level engagement. In the form of incentives and punishments for new regulations. Examples: Rebate system for homeowners and farmers.

As one of America's fastest growing cities, implementing a governing entity or method to curtail water use will need to be effective to assist in areas such as development of future parks; homes;

# Groundwater Sustainability Agencies

“The Sustainable Groundwater Management Act (SGMA) established a new structure for managing California’s groundwater resources at a local level by local agencies.” (CDWR)

The goal is to effectively allow the government entity the ability to implement, “the financial and enforcement authority to carry out effective local sustainable groundwater management.” (GSP Regulations Guide)



# Risks/Long Term Outcome

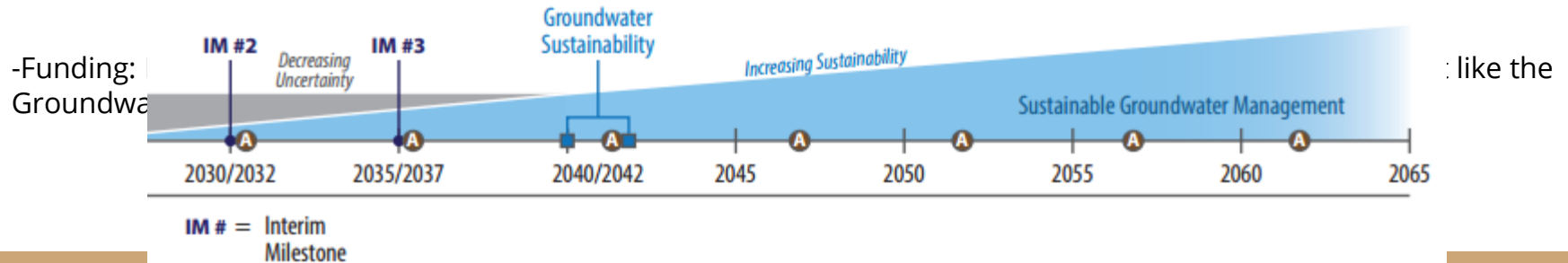
Long term benefits will be for Goodyear to have a complete understanding of the condition of their wells across the entire city.

Can be outsourced as a consulting group to other cities

Efficient allocation of resources

Ability to study new methods implemented in places like California

Generate an increased amount of revenue to fund these services



# Next steps

Contact the Advisory Council of the AMA

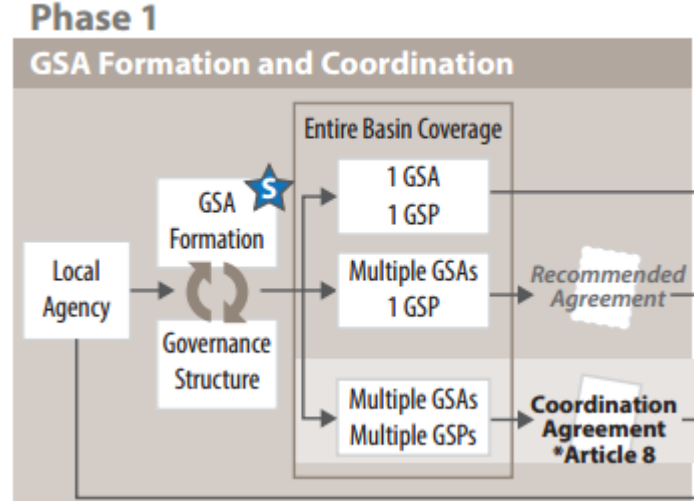
Modeling relationship between Goodyear and the Arizona Department of Water Resources

Working with community level organizations such as HOAs, NGOs, ect.

Analyze Best Management Practices (BMP) released by GSAs and CDWR

Groundwater Sustainability Plan (GSP) Emergency Regulations Guide

[http://www.water.ca.gov/groundwater/sgm/pdfs/GSP\\_Final\\_Regs\\_Guidebook.pdf](http://www.water.ca.gov/groundwater/sgm/pdfs/GSP_Final_Regs_Guidebook.pdf)



Thank you



Any Questions?

