

# Citizen Rate Review Committee

## Wastewater

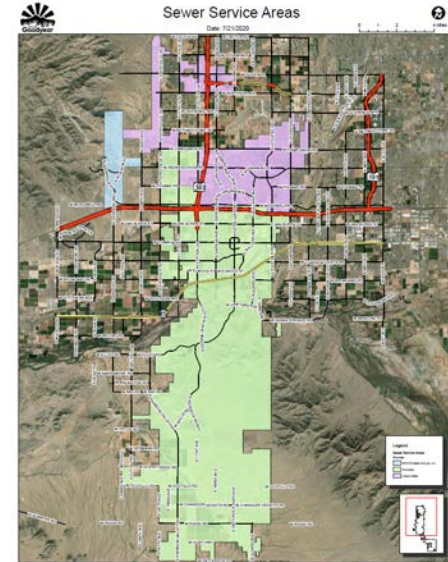


# Wastewater Service Area



## SAFETY • RELIABILITY • IMPROVEMENT

- ▶ Liberty and EPCOR serve a portion north of the interstate
- ▶ Approximately 20,000 service connections
  - ▶ Single-family 20,315
  - ▶ Multi-family 16
  - ▶ Non-residential 258
- ▶ Serving a population of approximately 60,000
- ▶ Build-out population 718,280



# Wastewater System Infrastructure



SAFETY • RELIABILITY • IMPROVEMENT

## ► Collection System

- 14 Lift Stations
- 1 Grinder Station
- Over 6,000 manholes
- Over 260 miles of gravity mains
- Almost 10 miles of force main



# Wastewater System Infrastructure



SAFETY • RELIABILITY • IMPROVEMENT

## ▶ 3 Plants

- ▶ Goodyear Water Reclamation Facility (6 MGD)
  - ▶ AKA 157<sup>th</sup> Avenue Reclamation Facility
- ▶ Corgett Water Reclamation Facility (0.75 MGD)
- ▶ Rainbow Valley Water Reclamation Facility (0.70 MGD)



# Wastewater System Infrastructure



SAFETY • RELIABILITY • IMPROVEMENT



# Wastewater System Infrastructure



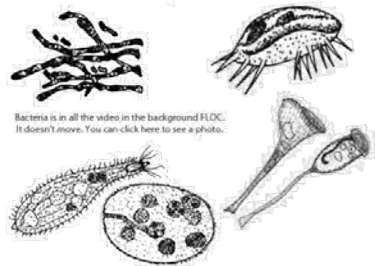
SAFETY • RELIABILITY • IMPROVEMENT



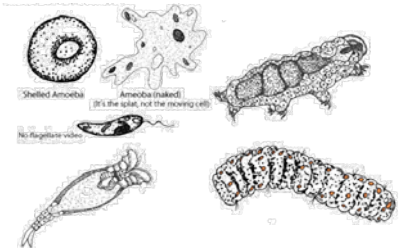
# Wastewater System Infrastructure



SAFETY • RELIABILITY • IMPROVEMENT



Bacteria is in all the video in the background FLOC.  
It doesn't move. You can click here to see a photo.



Shelled Amoeba

Amoeba (naked)  
(It's the spiky, not the moving cell)

No Flagellate video

# Wastewater System Infrastructure



SAFETY • RELIABILITY • IMPROVEMENT





# Wastewater System Infrastructure



SAFETY • RELIABILITY • IMPROVEMENT



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SAFETY • RELIABILITY • IMPROVEMENT



# Critical Projects



SAFETY • RELIABILITY • IMPROVEMENT

- ▶ Goodyear WRF Expansion and Site Improvements
- ▶ Brine Management
- ▶ Recharge
- ▶ Pretreatment Local Limits
- ▶ Rainbow Valley Expansion
- ▶ Collection System R&R

# Operational Goals and Strategies



SAFETY • RELIABILITY • IMPROVEMENT

- ▶ Environmental Protection
  - ▶ WET Testing
- ▶ Regulatory Compliance
  - ▶ AZPDES
  - ▶ APP
- ▶ Customer Satisfaction
- ▶ Reliability of operations

# Capital Goals and Strategies



SAFETY • RELIABILITY • IMPROVEMENT

- ▶ Reliable Service
- ▶ Environmental Protection
- ▶ Regulatory Compliance
- ▶ 100% Beneficial Reuse
- ▶ Support development


A large, circular sculpture made of metal rings and plastic bottles, viewed from a low angle looking up against a blue sky. The sculpture consists of several concentric metal rings, each covered in a dense layer of discarded plastic bottles. The bottles are mostly clear and blue, with some green and red ones scattered throughout. The perspective is from the center of the sculpture, looking outwards, creating a sense of depth and scale. The sky is a clear, deep blue, providing a stark contrast to the metallic and plastic elements of the artwork.

# Questions





CITY OF  
**Goodyear**



Vision: To become the most water efficient city in the Valley while maintaining a high quality of life.

Mission: To create a water conservation culture.

Smart, Innovative, Sustainable

# Water Conservation Committee Recommendations: Update



## IN ORDER OF PRIORITY

1. The Creation Of A New Landscape Design Committee
2. Water Conservation Rate Structure
3. Comprehensive Citywide Tree Plan
4. Advanced Metering Infrastructure (AMI)
5. Community Education and Awareness
6. Landscape Incentive Program
7. Pool Committee
8. Customer Friendly Services
9. Water Main Flushing Program
10. Smart Controllers Pilot Program
11. Home Irrigation Check-ups
12. Water Intensive Exceptions

# Water Conservation Rate Structure



Consider a new conservation water rate structure promoting efficient water use and one that could provide financial support for water conservation programs or projects.

- Rate structure is already a tiered system that promotes conservation
- Financial support for water conservation will be part of a future discussion



# Landscape Design Committee



Establish a new committee to develop a new set of landscape design standards and guidelines for all development within the city.

- Committee has been established and has met 4 times to update standards that will eventually be approved through a public process
- Currently on hold due to COVID-19

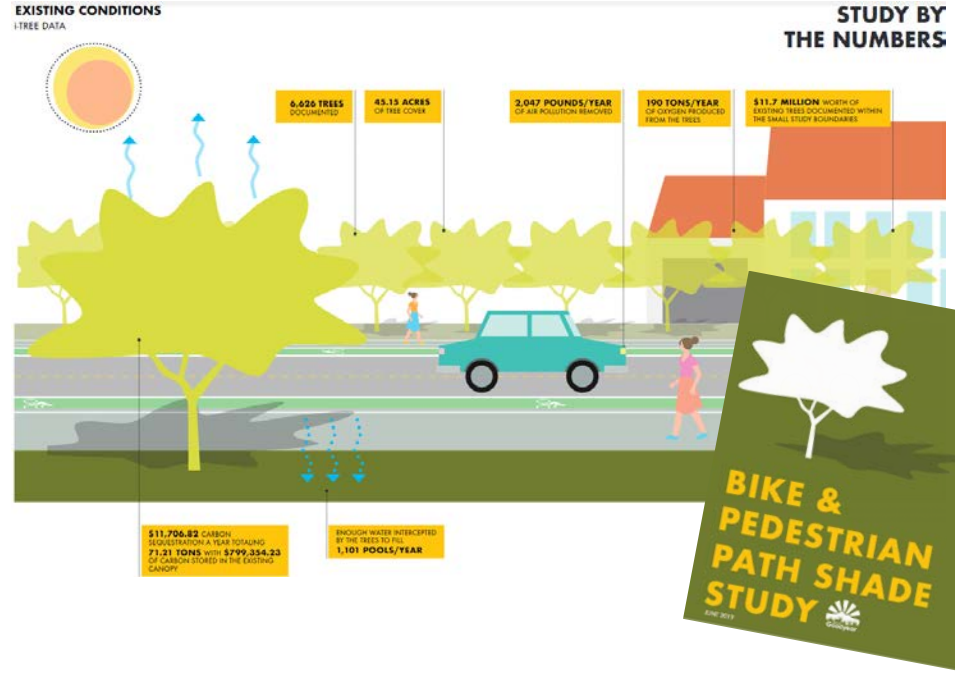


# Comprehensive Citywide Tree Plan



Mitigate the urban heat island effects, improve water efficiencies in outdoor water usage, and provide a strategy for improving the quality of life outdoors and walkability of the city.

- Bike and Pedestrian Path Shade study was released in June 2019
- Includes tree inventory, best practices for adding shade coverage, tree maintenance guidelines, and budget guidance
- Findings can be added to landscape design standards



# Advanced Metering Infrastructure



Develop a citywide expansion of AMI that would allow water customers to see and interact real-time with their water consumption and not only catch water leaks but assist them in better managing their individual water budgets.

- AMI meters are being installed for new development and as older meters fail
- Starting this year, there is CIP money set aside to replace all of the meters
- Additional infrastructure investment is needed in order to obtain real time data



# Community Education & Awareness



Provide a comprehensive community education and awareness program that provides specific strategies for increasing water efficiency within Goodyear.

- Several events including Spring Training
- “Topics on the Move” (TOM) van
- Digital Engagement: Water Wednesday, trivia, and bingo
- Conservation campaign
- Virtual water conservation classes





# Landscape Incentive Program



Establish a program for the conversion of existing water intensive landscapes to more efficient landscapes.

- Planning an incentive program to encourage the use of low water-use plants. To qualify for the incentive, residents must take one of our water conservation classes.
- Exploring grant opportunities to fund turf removal for HOAs (currently there are 194 acres of HOA turf that use approximately 300 million gallons of water a year).



# Customer Friendly Services



Provide a more personalized approach to assist customers in the sustainable use of water and access water conserving programs.

- Started offering personalized water efficiency reports to residents, HOAs, and businesses
- Advertised through social media, website, and Good Neighbor newsletter
- So far 15 reports for residents have been created
- Reports showed a 23% water savings opportunity if residents were more efficient

**Dear Homeowner,**

Thank you for reaching out and requesting a water usage estimate for your home. The results for your estimate are below and serve to give you an idea of efficient water usage compared to how much water you actually use. If your actual usage is much higher than these estimates, you can find resources for reducing your high water use [here](#). If you have any questions, please let me know.

**Total annual water consumption**

Month	Inside	Turf	Planted Areas	Pool	Total outdoor	Total (including)	Total Actual Usage
Jan	8630	3675	5085	840	4195	12825	21500
Feb	8620	3648	5080	840	4168	14188	27000
Mar	8620	3637	5080	1280	8717	17337	29500
Apr	8620	8512	2700	2100	13312	21932	33000
May	8620	20458	2279	2320	16277	24827	36000
Jun	8620	11490	3779	2940	18149	36769	17000
Jul	8620	10944	3239	2120	16703	25323	19000
Aug	8620	9483	3239	2120	15244	22864	18000
Sep	8620	8028	2780	2120	13648	20468	16000
Oct	8620	8028	2780	2120	13648	20468	16000
Nov	8620	3971	1080	840	5811	14491	36000
Dec	8620	2432	140	420	3392	12012	16000
Total (annual)	103840	81364	25416	20500	132400	235840	200000

**Indoor water use**

- Water used flushing toilets: 980
- Water used showering: 4600
- Water used for baths: 400
- Water used by dishwasher: 240
- Water used by washing machines: 720
- Water used brushing teeth: 180
- Water used for cleaning and cooking: 1200
- Water used for drinking: 240
- Total monthly indoor water use: 8620**

**Water Consumption June 19 - May 20**

# Smart Controllers Pilot Program



Determine the average percentage of water savings realized by homes using smart irrigation controller technology.

- Flume pilot- purchased 13 Flume smart water systems that shows real time water usage including leaks. Average savings is 10%.
- Smart Irrigation controller pilot- will purchase 100 devices and conduct a year study to see the average water savings in Goodyear. Average savings is 20%



# Pool Committee



Establish a new committee to develop a new set of pool design standards and guidelines for all development that will increase pool water efficiency.

- Has not been addressed yet but there is potential to obtain additional outdoor water use data from the Flume pilot



# Home Irrigation Check-ups



Re-establish and expand the home irrigation check-up program with an emphasis towards the city's highest residential water users.

- Will revisit the idea post-COVID
- Partnering with AMWUA to offer DIY videos to teach people how to do a home audit themselves



# Water Main Flushing Program



Explore new technology that conserves and recycles water and enhances water quality within the water distribution system as part of a system-wide water-flushing program.

- Some research has been done about the different technologies, but was found to be cost prohibitive.
- Going to study a water main flushing strategy with the new water supply to be as water efficient as possible

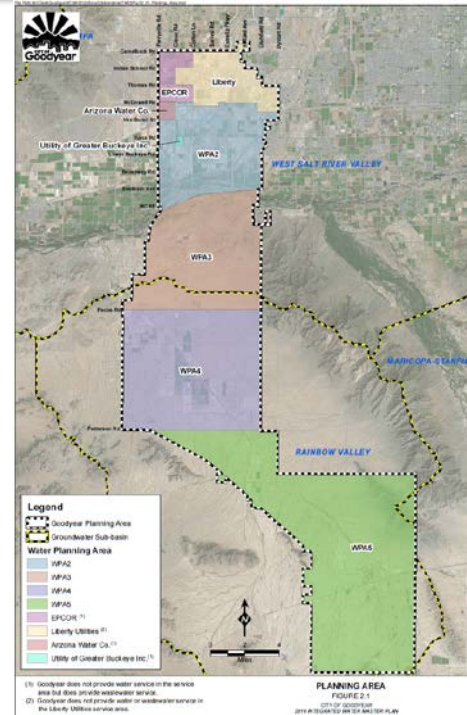


# Water Intensive Exceptions



Develop new city policies that provide exceptions to certain water-intensive activities where the greater good of the city may have value that exceeds the value of the water resources, efficiencies, and conservation.

- The IWMP has allocated water to support development
- High water industrial users could be required to BYOW- bring your own water



A photograph of a cholla cactus (Cylindropuntia) with several bright yellow flowers in bloom. The cactus has green, segmented stems covered in small spines. The background is dark and out of focus, suggesting a natural outdoor setting. The word "Questions?" is overlaid in white text in the center of the image.

Questions?