The Tucson Water
Reclaimed Water Story

John Kmiec, Deputy Director, Tucson Water
WWEMA, November 7, 2019
Topics

• Reclaimed system infrastructure
• Sweetwater Facility
• Existing Managed Projects
• New Projects
Water Production for Tucson Water Service Area (1940-2018)
Reclaimed Water System Profile

**Total**
11,273 Acre Feet

- **Golf Courses**
  6,959 Acre Feet

- **Parks**
  1,979 Acre Feet

- **Agriculture**
  (U of A Farms)
  257 Acre Feet

- **Schools**
  1,196 Acre Feet

- **Residential**
  498 Acre Feet

- **Commercial**
  385 Acre Feet

Reclaimed Water System

Santa Catalina Mountains

Avra Valley

Rincon Mountains

You Are Here

TUeON WATER
A proud part of the City of Tucson

Reclaimed Water Main
City of Tucson Boundary
Aquifer

Miles

0 1.25 2.5 5 7.5

1-10

1-10
Our Reclaimed System Today

- 195 Miles of Pipe
- 1000+ Customers
- 15 Boosters
- Over 30 mgd delivery capacity
Our Main Facilities

Agua Nueva produces Class B+ effluent or better

Tucson Reclaimed Water Treatment Plant for further treatment
Sweetwater Recharge Facility

• In operation for over thirty years
• Storage in winter to meet summer high demand
• 11 recharge basins
• Extraction wells cover demands over 10 MGD
Sweetwater Wetlands

- Was constructed for filter backwash treatment
Sweetwater Wetlands Expanded Popularity

- Birders (Audubon Society Partnership)
- Bike Path Connection
- Large Parking Area
- Popular Spot for School Tours
Managed Projects

• Santa Cruz River Managed Underground Storage Facility (SCRMUSF)

• Lower Santa Cruz River Managed Recharge Project (LSCMRP)

• Santa Cruz River Heritage Project (Heritage)
Santa Cruz River Managed Underground Storage Facility (SCRMUSF)

- Water discharge from the Pima County Agua Nueva Water Reclamation Facility
- Co-permitted with the Bureau of Reclamation
- 5.1 miles
- Average deliveries of ~5,000 AF/YR
Lower Santa Cruz River Managed Recharge Project (LSCMRP)

- Water discharged from the Pima County Tres Rios Treatment Facility
- Since November 2003
- 17.91 Miles
- Collaboration of multiple partners
- Average Deliveries ~30,000 AF/YR
LSCRMRP & SCRMUSF = ~ 23 miles

Heritage = ~ 1.5 miles

Total of almost 25 miles of otherwise dry river bed will be wet perennially.
New Projects

• South Houghton Area Recharge Project (SHARP)

• Santa Cruz River Heritage Project (Heritage)
Revitalizing a River with Reclaimed Water
Project Overview

- Construction Cost – less than $1 million
- Construction Start - Early 2019
- Operation Start Up - June 2019
Project Phasing

1. Silverlake Road Outfall
   - Permitted for 3,150 Acre Feet per Year
   - Maximum flow rate of 2.8 MGD

Potential Future Phases

2. South of Cushing Street
3. Off-channel Public Amenity
Santa Cruz River Heritage Project

Community Benefits

1. Aquifer Recharge
2. Full use of Reclaimed Water (SHARP and Heritage Project)
3. Downtown Riparian Area
4. Economic Activity
5. Enhances Cultural Connections

Example – Irrigating Mission Gardens

Example – Economic Development
Historic Santa Cruz River
Release Party

• June 24, 2019
• Over 300 attendees, including community members as well as water professionals
• Partnering with El Dia de San Juan Coalition Committee
• A blessing at sunrise from San Javier chairman Austin Nunez
Community Response and Impact
Look at tadpoles in the Santa Cruz

A roadrunner hunts along the banks of the Santa Cruz River between St. Mary's and Speedway, taking advantage of the recycled water being pumped into the channel for the Heritage Project. Saturday, June 29, 2019, Tucson, Ariz.
Kiley Price/Arizona Daily Star

Water is wondrous to parched desert kids (and grown-ups).

Now, we can say take them to the river, thanks to Tucson Water’s Santa Cruz Heritage Project, which started pumping recycled water into the once dry Santa Cruz starting north of the Silverlake bridge last month.

If seeing flowing water isn’t enough, go down to the bank and see the riparian habitat that’s already forming. The kids will love looking at the tadpoles and the different plant life growing down there.

We recommend starting at the Mercado San Agustin, 100 S. Avenida del Convento, just west of the river, to get treats and bike or walk along the Loop.

Find more info and fun facts about the project [here](#).
Media Coverage – First Week

11 PIECES OF COVERAGE:

4.08M ONLINE READERSHIP:

39.5K ESTIMATED COVERAGE VIEWS:

23.2K SOCIAL SHARES:
Social Media Research

Key Words “Tucson Water” & “Santa Cruz Heritage”
Community Response

**TOTALLY TUCSON** @totallytucson · Jul 1
Happy Monday, #Tucson! 106 and sunny today. Skies are starting their #monsoonmoods for us. And we have more reflective waters in town now. The newly flowing Santa Cruz is making us all a bit more thrilled this summer.
#santacruz ❤️ to @matt4susd on IG

**Javier Morales** @JavierJMorales · Jun 25
Emotional watching this. Water in Santa Cruz part of my dad's childhood in late 1930's & early 1940's. Told us stories of playing in the river as a boy. Requested we spread his ashes along Santa Cruz leading to San Xavier. With river now flowing, thinking he's at peace up there.

**Denelle Confair** @DenelleConfair · Jun 24
You hear that? 🌊 Water is flowing in the Santa Cruz River. It’s part of the Santa Cruz Heritage Project. Several Tucson natives I spoke with are so excited about it. More details at 4pm on @KVOA.
Collaboration
Wrap Up

• Collaboration is key to successful projects

• The Reclaimed System is awesome!
  ▪ It’s complex
  ▪ Recharging water for future generations
  ▪ Provides 10% of Tucson Water supply
  ▪ Built and expanded over decades
  ▪ We are not done yet!
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