

# SAWS Capital Improvements Program

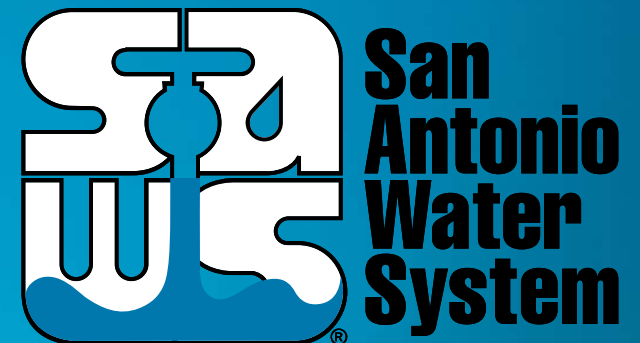
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January 27, 2021

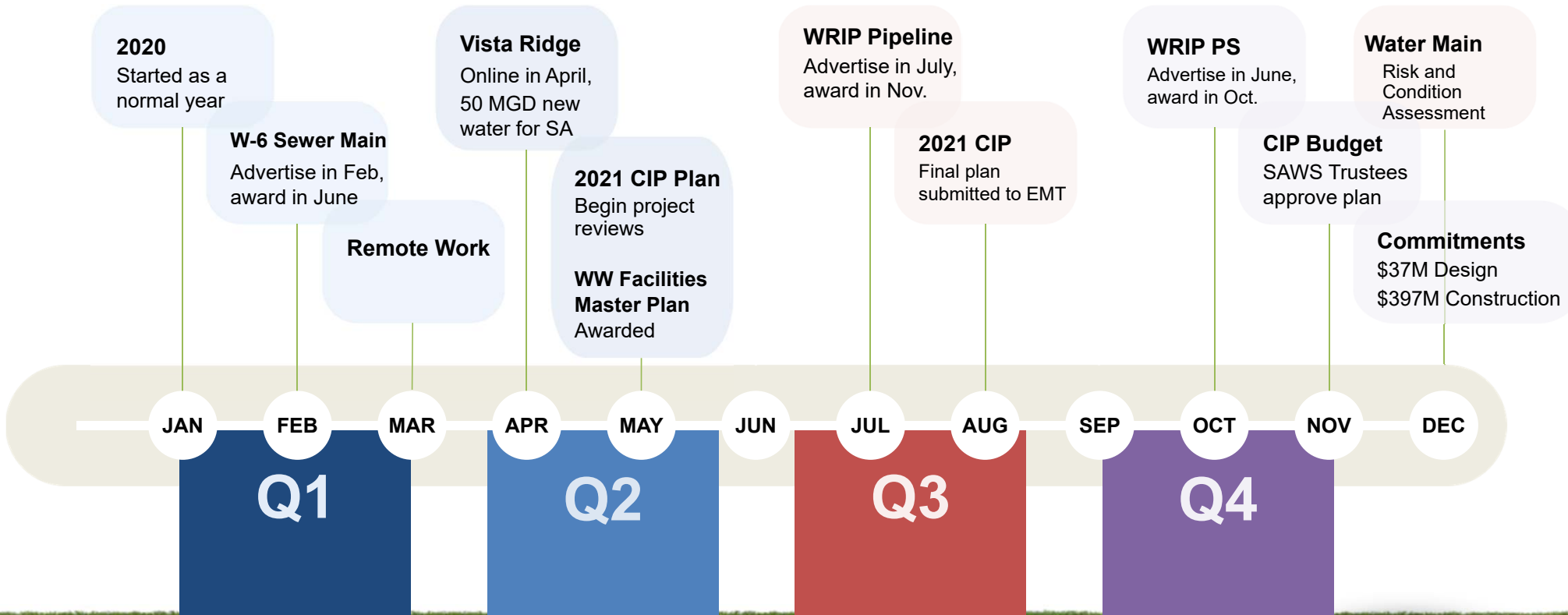


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# Recap 2020

## Major Milestones

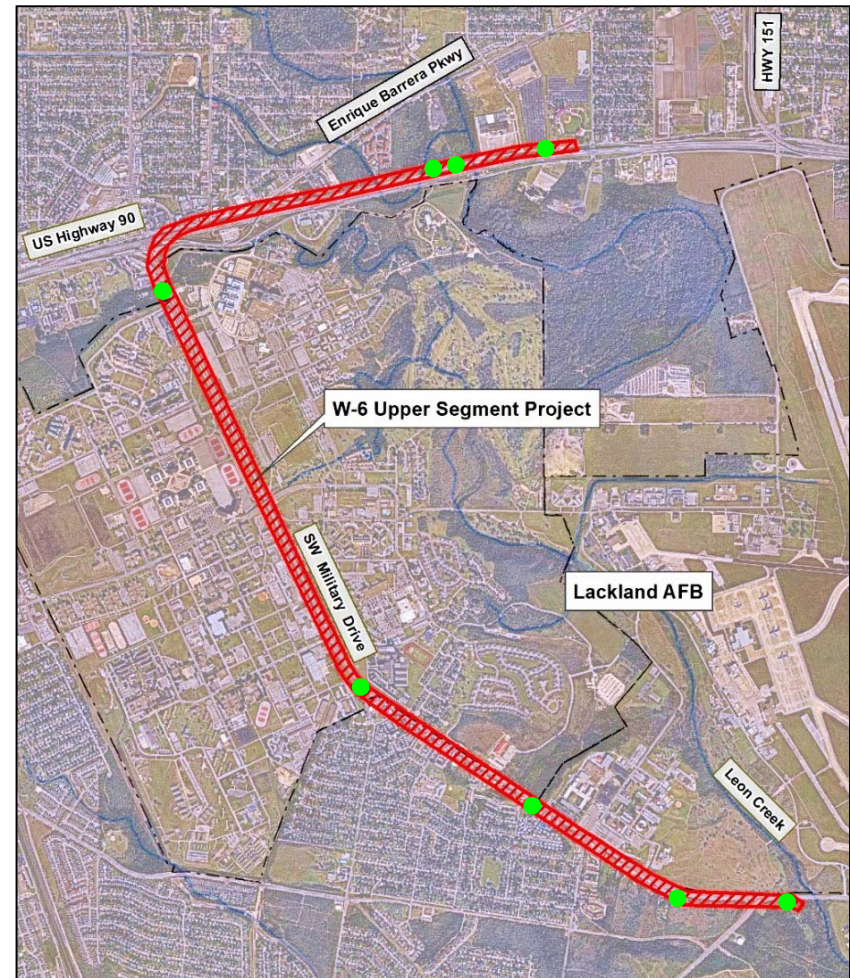


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## W-6 Upper Segment

- Most costly and complex sewer pipeline project in San Antonio's history
- Over 5 miles of 104" gravity sewer main at depths up to 140 feet
- Awarded to SAK Construction July 7, 2020
- \$167M Construction Cost
- 3 year construction duration



# W-6 Upper Segment – Construction Update

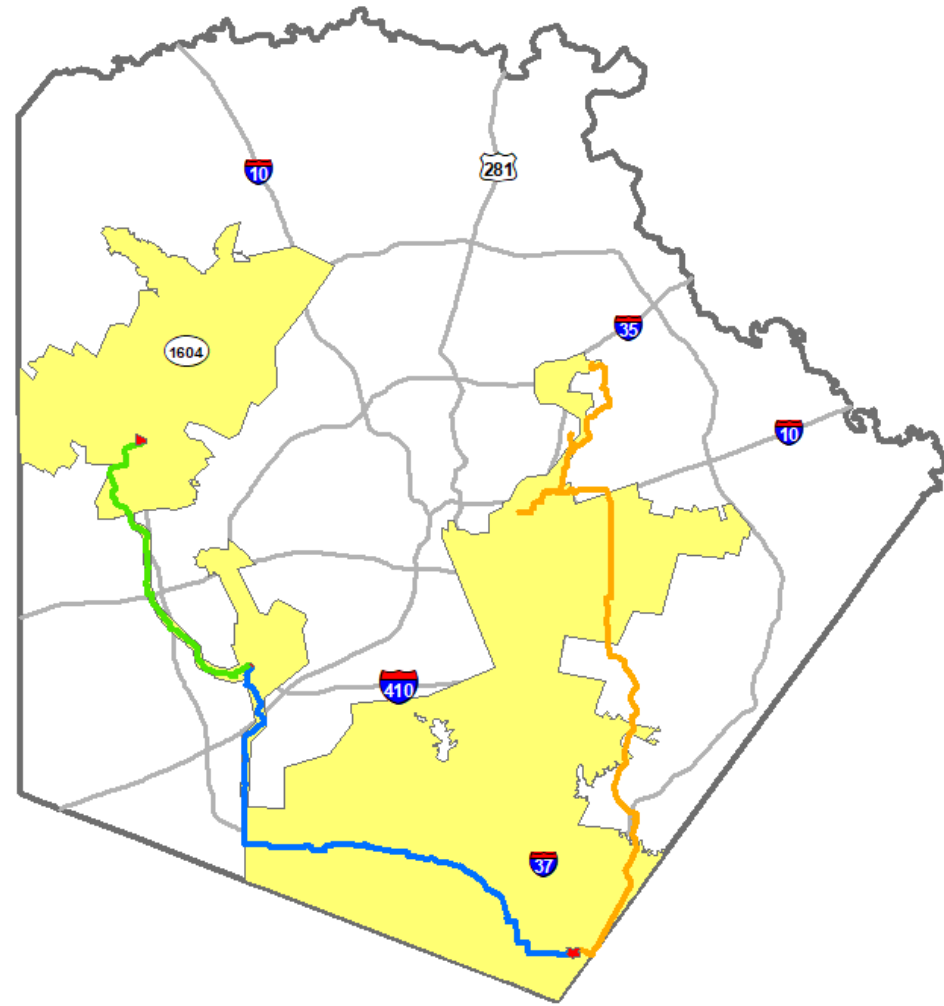


Reach 5 : Ball Park to Callaghan - Complete

Intermediate Milestone I : TBM Mobilization - Complete

## WRIP Phase 2

- Pump Station Improvements project
  - H2Oaks West, Old Pearsall & Anderson PS
  - \$27M
- Pipeline project
  - 16 miles of steel, high pressure rated pipeline
  - \$44M





# 2020 Water Risk and Condition Assessment Program

## Likelihood of Failure

Criteria:

- Machine Learning (Baseform)
- Field Condition Assessment (Echologics)
- Estimated Useful Life Calculations

## Consequence of Failure

Triple Bottom Line Criteria:

- Social
- Economic
- Environmental

## Overall Risk Score

- LOF x COF x Redundancy
- Developed using Innovyze InfoAsset Planner

- Develop a water main risk-based 5 yr. CIP
- Bundle and prioritize CIP projects based on risk, life cycle costs, and other criteria
- Identify long term funding needs based on desired service levels

Bundle assets into projects based on risk score

Prioritize based on business cases

Plan CIP years 2021 through 2025

# SAWS ConnectH2O Program



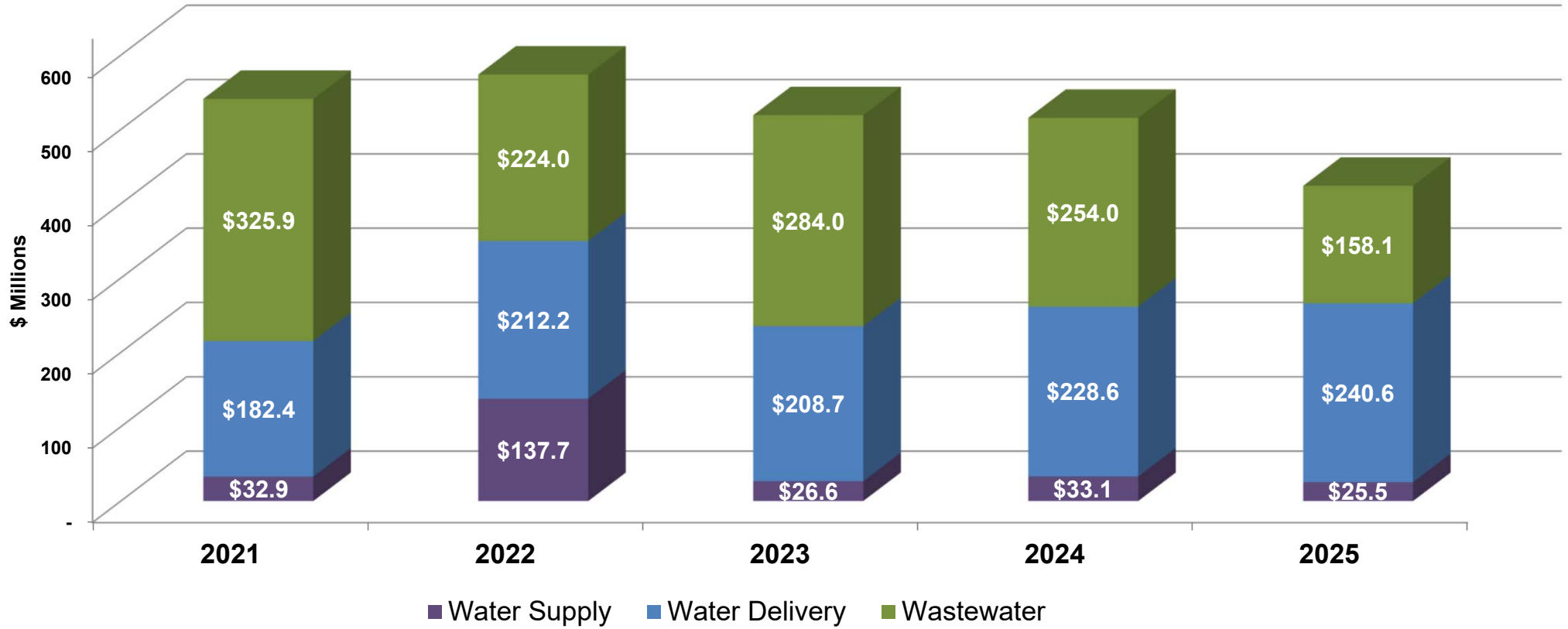
## CONNECT H<sub>2</sub>O

- Advanced Meter Infrastructure (AMI) contracts
  - Endpoint Installation
  - Meter Data Management System
- Pilot to begin early 2021
  - 2,500 customers in three areas
  - Test system reliability and usability
- Full deployment 2022-2026
  - Piggyback off of CPS Energy wireless network





# SAWS Proposed CIP 2021 - 2025



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# SAWS 2021 CIP

By Core Business



TOTAL  
**\$541M**

\$486M Construction  
\$21M Design

70% Replacement  
30% Growth

# Water Delivery

\$182.4 Million

Pipelines – \$62.3 million

Facilities – \$78.8 million

Gov't Replacements - \$27.8 million



# Water Delivery Projects

- Turtle Creek No. 3 Tank and Main, \$35M
  - Construct 5 MG tank and 1 mile main to support the Medical Center
- Micron, Seale and Market St. Disinfection Systems Replacement, \$18.7M
  - Upgrade to on-site sodium hypochlorite
- Water Main Replacements, \$12.3M
  - Replace 4 aging neighborhood water mains



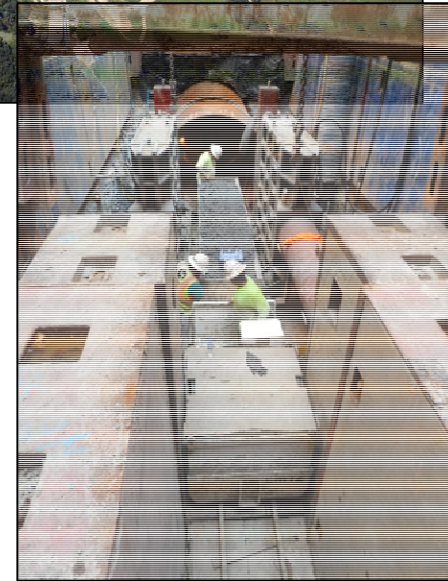
# Wastewater

\$325.9 Million

Pipelines - \$198.0 million

Facilities - \$67.6 million

Gov't Replacements - \$27.8 million



# Sewer Main Condition Rehab Program

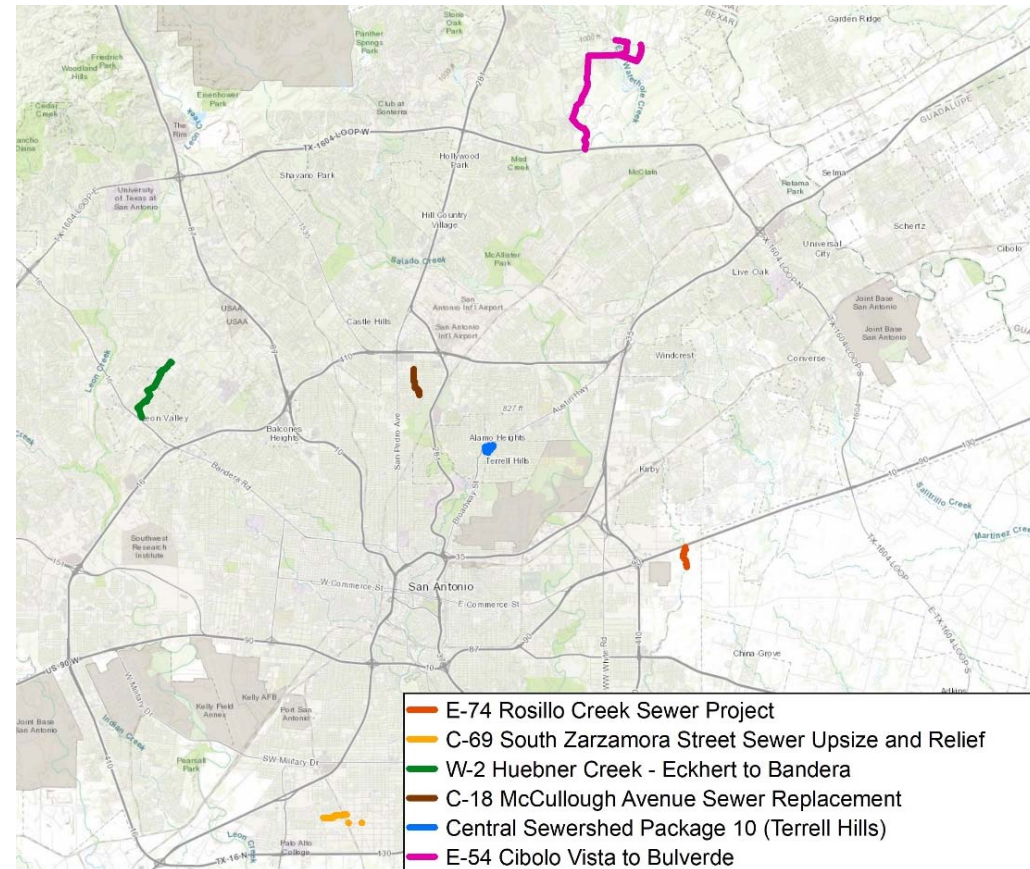
\$75.0 Million

- Small & Large Diameter Condition
  - Consent Decree
- Inflow Reduction
- CMOM
  - Condition work beyond the CD



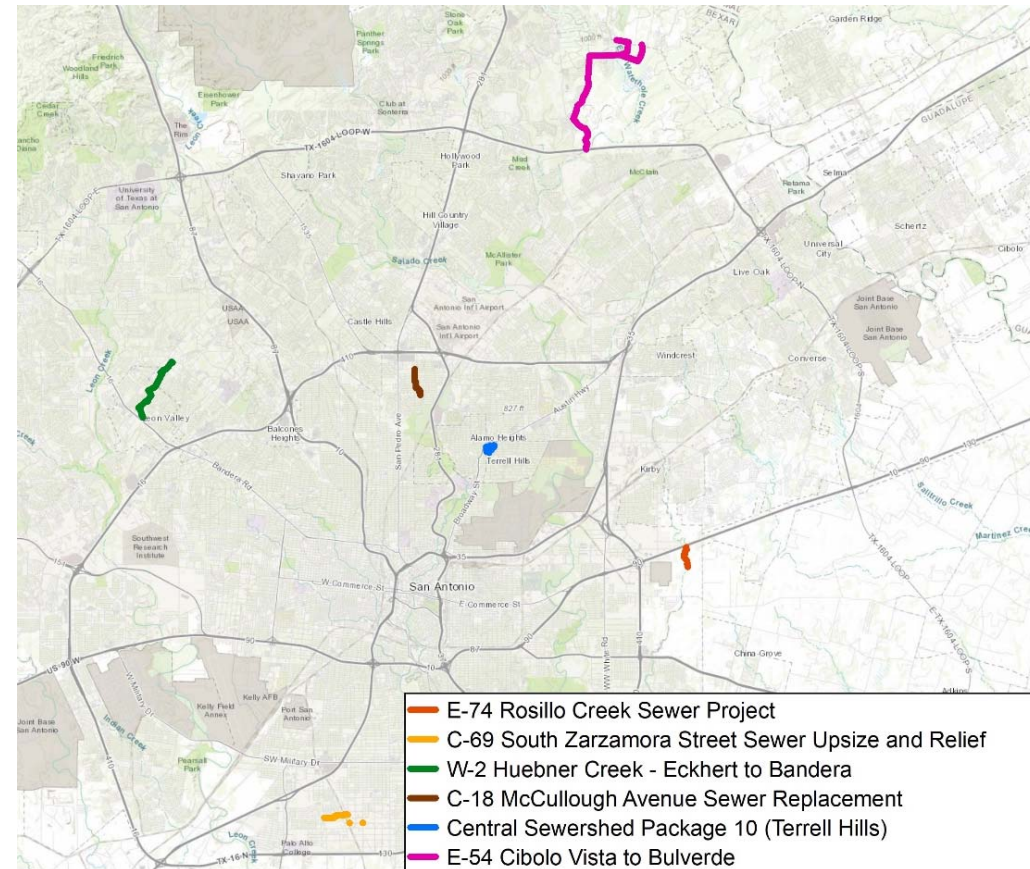
# Sewer Main Projects

- W-2 Huebner Creek: Eckhert to Bandera, \$14.1M
  - 2 miles of up to 42-inch sewer main
- E-74 Rosillo Creek, \$13.4M
  - 60-inch in-line storage
- E-54 Sewer Main, \$31.7M
  - Developer Tri-Lateral



# Sewer Main Projects

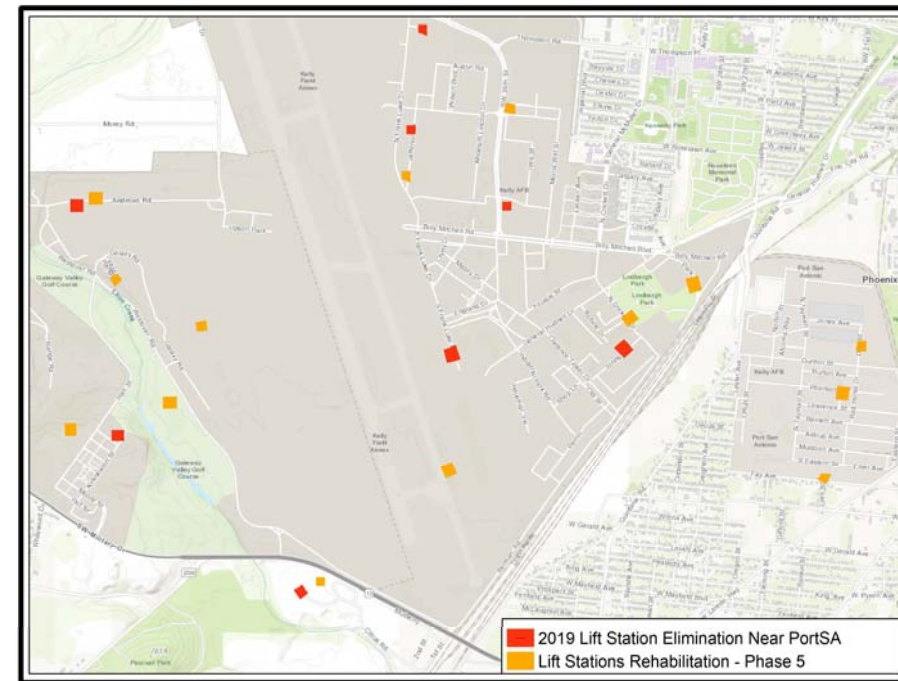
- **C-18 McCullough Ave**
- C-69 S. Zarzamora
- Small Capacity Constraints, \$10.3M
- C-10 Terrell Hills





# Lift Station Projects

- Lift Station Rehabilitation Phase 5, \$11.8M
  - Rehab 15 lift stations at Port SA and Lackland AFB
  - Includes SCADA work
  - Required by 2023
- 2019 Lift Station Elimination, \$5.1M
  - Eliminate 7 lift stations near Port SA
  - Rehab LS 105
  - Required by 2023



# Water Recycling Center Projects

\$50.4 Million

- SMC Headworks Grit Improvements, \$6.8M
- SMC Digester Mixing Improvements, \$21.9M
- SMC WRC Electrical System Improvements Phase 2, \$25.8M
- Leon Creek Improvements, \$21.7M



# Clouse WRC Digester Mixing Improvements Phase 3

\$21.9 Million

- Improvements to four existing digesters (Nos. 5, 6, 7 and 8)
  - Cleaning of digesters
  - Installation of pump mixing systems
  - Repairs to dome, liners and bases
  - Installation of dual overflow lines
  - Installation of Electrical, Instrumentation and Control elements



# Clouse WRC Electrical System Improvements Phase 2

\$25.8 Million

- Project will support the transitioning of the current control system to PLCs
  - Replacement of three sets of aging controllers with new programmable logic controllers (PLC)
  - Support transition to a PLC-based controls systems to align with other core service areas
  - New stand-alone electrical and controls building
- Phase 3 and Phase 4 are planned for 2021-2023 and 2023-2025, respectively



Hold over from 2019 CIP year  
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# Leon Creek WRC Improvements & Upgrades Phase 2

\$21.7 Million

- Final phase of upgrades or replacement of the critical infrastructure at the plant
  - Upgrade the existing headworks
  - Demolish structures/equipment and clean up
  - Repair concrete in Flow Equalization Basins
  - Install two tertiary filters
  - Electrical Improvements



# Water Resources

\$32.9 Million

- Artesia Wells, \$9.3M
  - Rehab three wells that provide water to the Aquifer Storage and Recovery facility
- Artesia Pump Station Rehab, \$16.2M
  - Replace mechanical and electrical components



# Design Contract Opportunities

## Under Review/Advertising

- Under Review
  - Mitchell Lake Dam and Wetlands
  - 2021 Water Main Designs
  - 2021 Production Facilities Upgrades
- Currently Advertising
  - Recycle Water Infrastructure Upgrades & 2021 Engr. Work Order

# Design Contract Opportunities

## 3<sup>rd</sup> and 4<sup>th</sup> Quarter

- W-9 Upper Leon Creek, \$6.4M & W-52 Culebra Creek, \$1.6M
- CMOM (Sewer Condition Rehab), \$TBD
- Water Pipeline
  - PZI 111 24-inch Transmission Main, \$2.7M
  - Project 3: IH10 PZI400 Water Main - Phase A, \$1.7M
- Treatment Facilities
  - SMC Electrical System Improvements Phase 3, \$1.6M
  - SMC Blower System Improvements, \$2.2M





# Construction Specs & General Conditions

- Updated Construction Specs.
  - To be posted to SAWS website Feb. 1<sup>st</sup>
- Utility Service Regulations
  - Addressing Comments
  - 1<sup>st</sup> Qtr. Roll Out



# Contract Solicitations

<https://www.saws.org/business-center/>

Business Center

## Contract Solicitations

- Login
- Update Your Account
- Archive
- Bid Opening Results
- Bid Tabs
- Forms
- Contract & Project Management System
- Future Contract Opportunities

## Contract Solicitations

Vendors are invited to submit proposals for various contracts seeking goods and services, and view current invitations to bid. Register for access to new contract opportunities, planholders lists, and more.

[Register Now >](#)

## Vendors & Contractors Login

Email

Password

[Forgot Password](#)

[Sign In](#)

San Antonio Water System is accepting submissions until the closing date:

Results **1 - 18** of **18**

## Beyond 2021

- 2020 Water Risk and Condition Assessment Program will identify water mains for replacement
- Wastewater Facilities Master Plan will guide WRC work for next 20 years
- Sewer main replacement will continue past Consent Decree
- CIP Plan expected to average ~\$500M/yr

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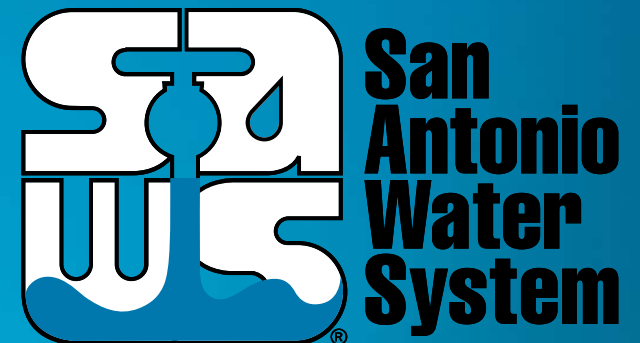
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