

# Walnut Creek WWTP Update

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# Presentation Outline

- 💧 Walnut Creek WWTP Overview
- 💧 Capital Improvement Program Summary
- 💧 Notable Projects
- 💧 Conclusion
- 💧 Questions

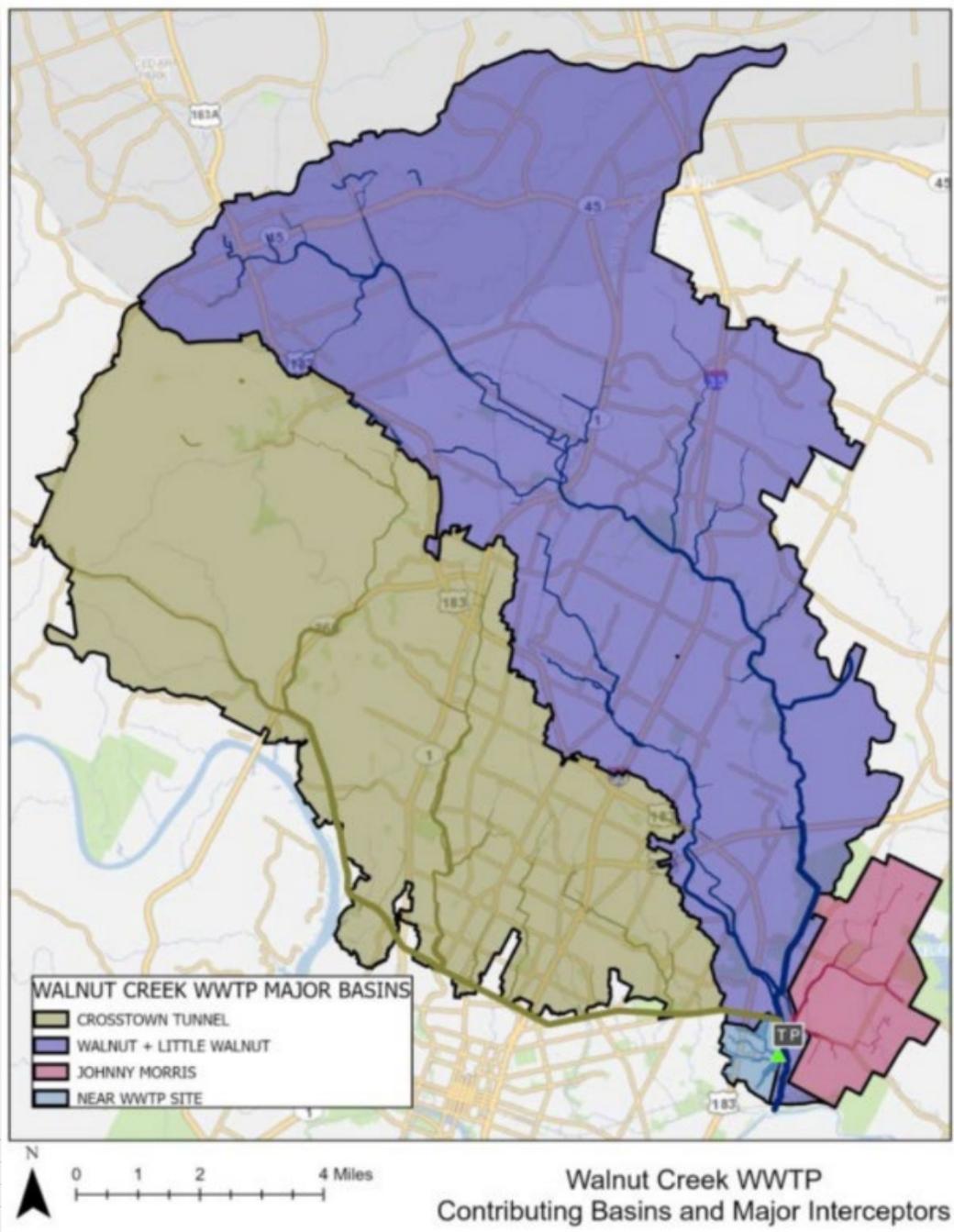


# WALNUT CREEK WWTP OVERVIEW



# AW Wastewater by the Numbers

- ◆ Gravity Lines ≈ 2,900 Miles (15.3 Million Linear Feet)
- ◆ Manholes ≈ 59,000
- ◆ Lift Stations ≈ 135
- ◆ Force Mains ≈ 78 Miles (411,800 Linear Feet)
- ◆ Decentralized Package WWTPs = 8
- ◆ Wastewater Treatment Plants = 2
  - Walnut Creek WWTP & South Austin Regional WWTP
- ◆ Biosolids Plant = 1
  - Hornsby Bend Biosolids Management Plant



# Current Permit & Flows

## ◆ Permitted flow

- Average = 75 MGD
- 2-hour peak = 165 MGD

## ◆ History

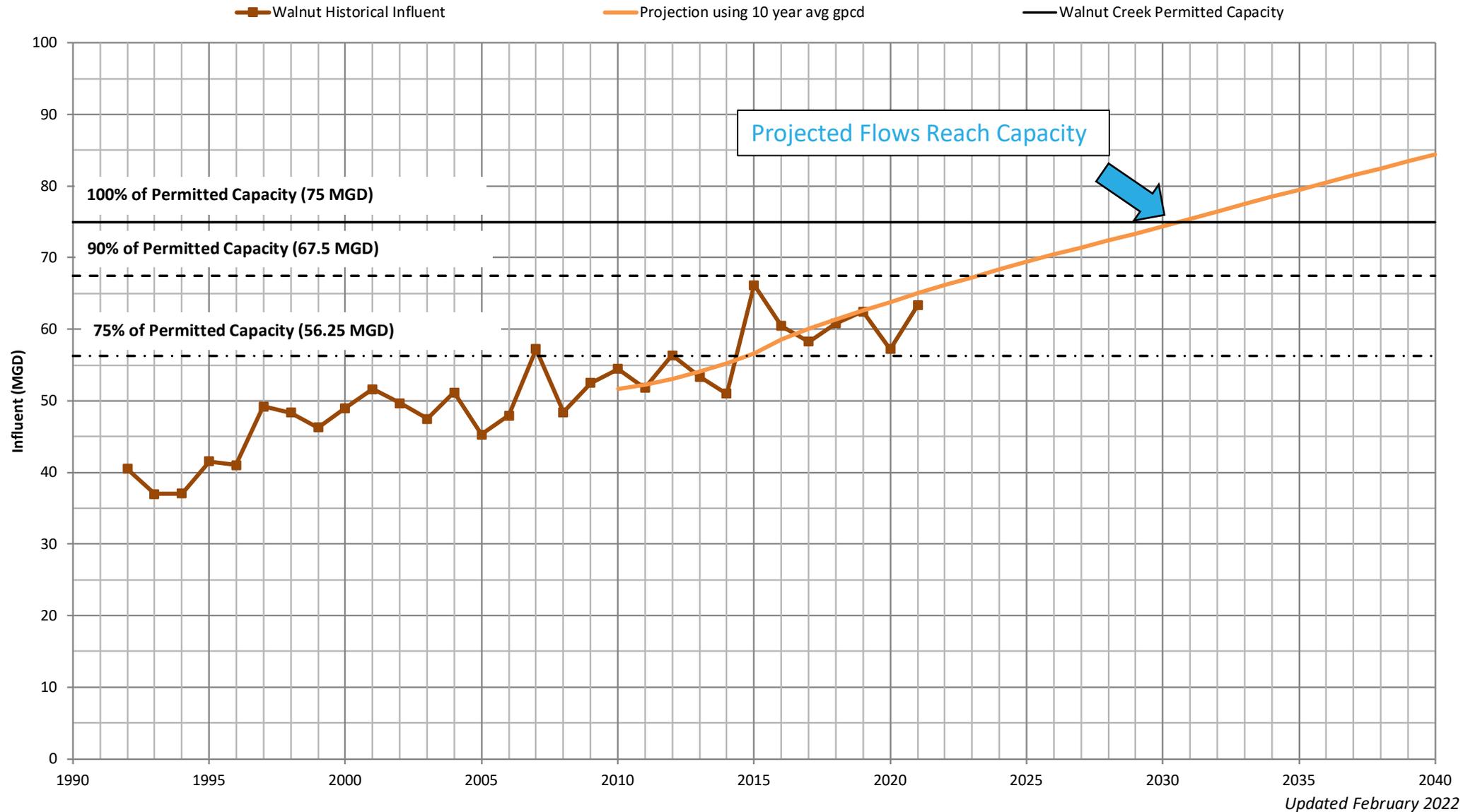
- Original plant 1977
- Two major expansions in 1980s
- Major expansion in 2005





# 2022 Walnut Projections

(for "10 year" data set)



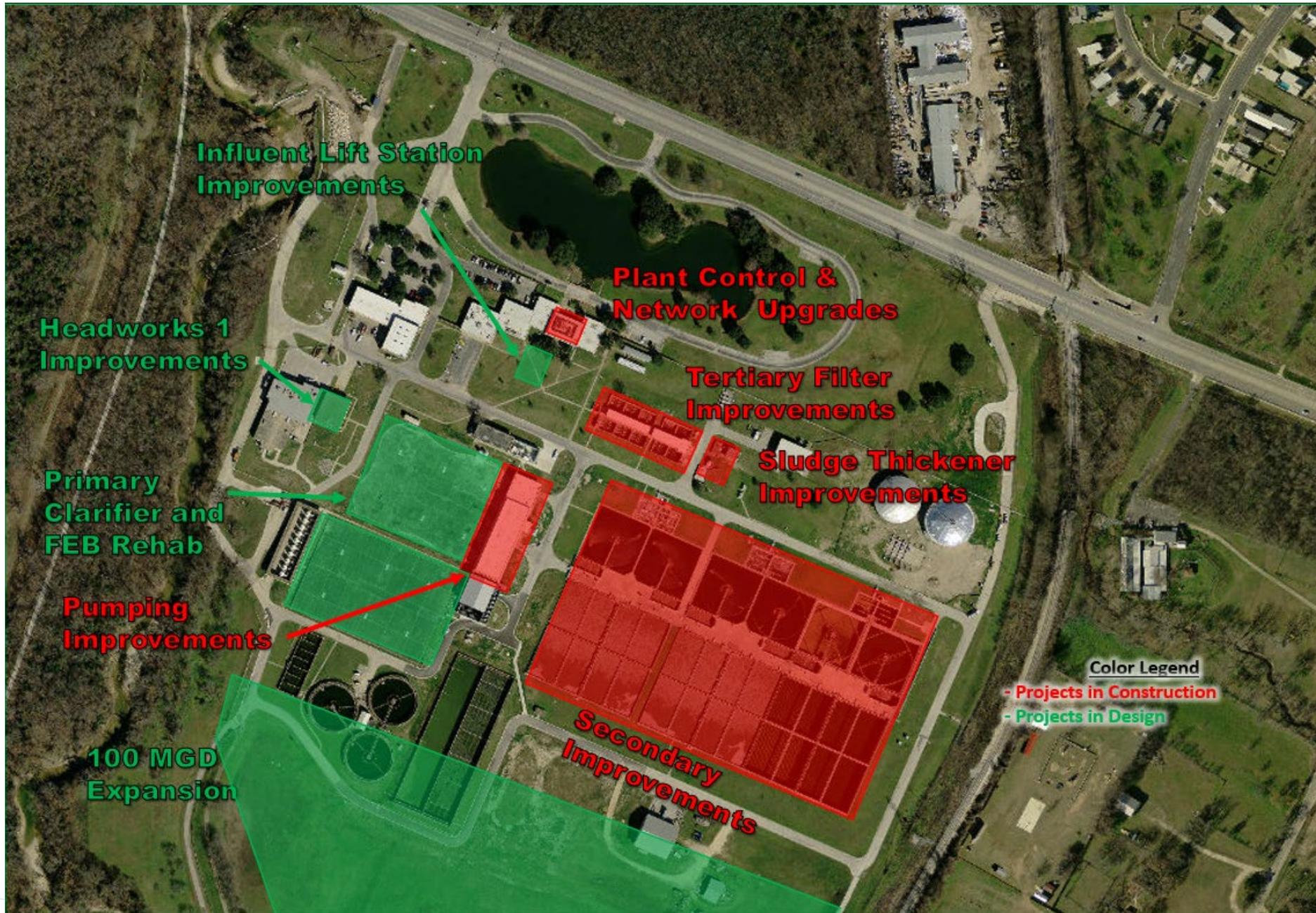
# Capital Improvement Program Summary



# Strategic Investments

- Rehabilitation projects upgrade and modernize the existing facilities and equipment to extend the life of the treatment plant.
- Growth projects expand the treatment capacity to support the growth in Austin and meet new regulatory requirements.
- \$370 Million FY23-27 CIP (all categories)





**Influent Lift Station Improvements**

**Headworks 1 Improvements**

**Primary Clarifier and FEB Rehab**

**Pumping Improvements**

**100 MGD Expansion**

**Plant Control & Network Upgrades**

**Tertiary Filter Improvements**

**Sludge Thickener Improvements**

**Secondary Improvements**

**Color Legend**

- Projects in Construction

- Projects in Design



# Project Summary

Project	Phase	Construction Cost	Upcoming Commission Actions
Tertiary Filter Rehabilitation	Substantially Complete	\$25 Million ( <i>contract value</i> )	---
Sludge Thickener Rehab	Substantially Complete	\$10 Million ( <i>contract value</i> )	---
Secondary Process Improvements	Construction	\$25 Million ( <i>contract value</i> )	---
Pumping System Improvements	Construction	\$14 Million ( <i>contract value</i> )	---
Controls & Network Upgrades	Construction	\$6 Million ( <i>contract value</i> )	---
Gas Scrubber Systems Renewal	Design	\$3 - 4 Million ( <i>estimate</i> )	2022 – Construction Contract
Influent Lift Station	Design	\$9 - 10 Million ( <i>estimate</i> )	2024 – Construction Contract
Headworks Improvements	Design	\$37 - 40 Million ( <i>estimate</i> )	2024 – Construction Contract & Construction Phase Services
Primary Clarifier & Flow Equalization Basin Rehab	Design	\$32 - 35 Million ( <i>estimate</i> )	July 20, 2022 – CMAR Contract
Expansion to 100 Million Gallons Per Day	Preliminary Engineering	\$500 - 600 Million ( <i>estimate</i> )	July 20, 2022 – Design Phase Services



# Construction is underway



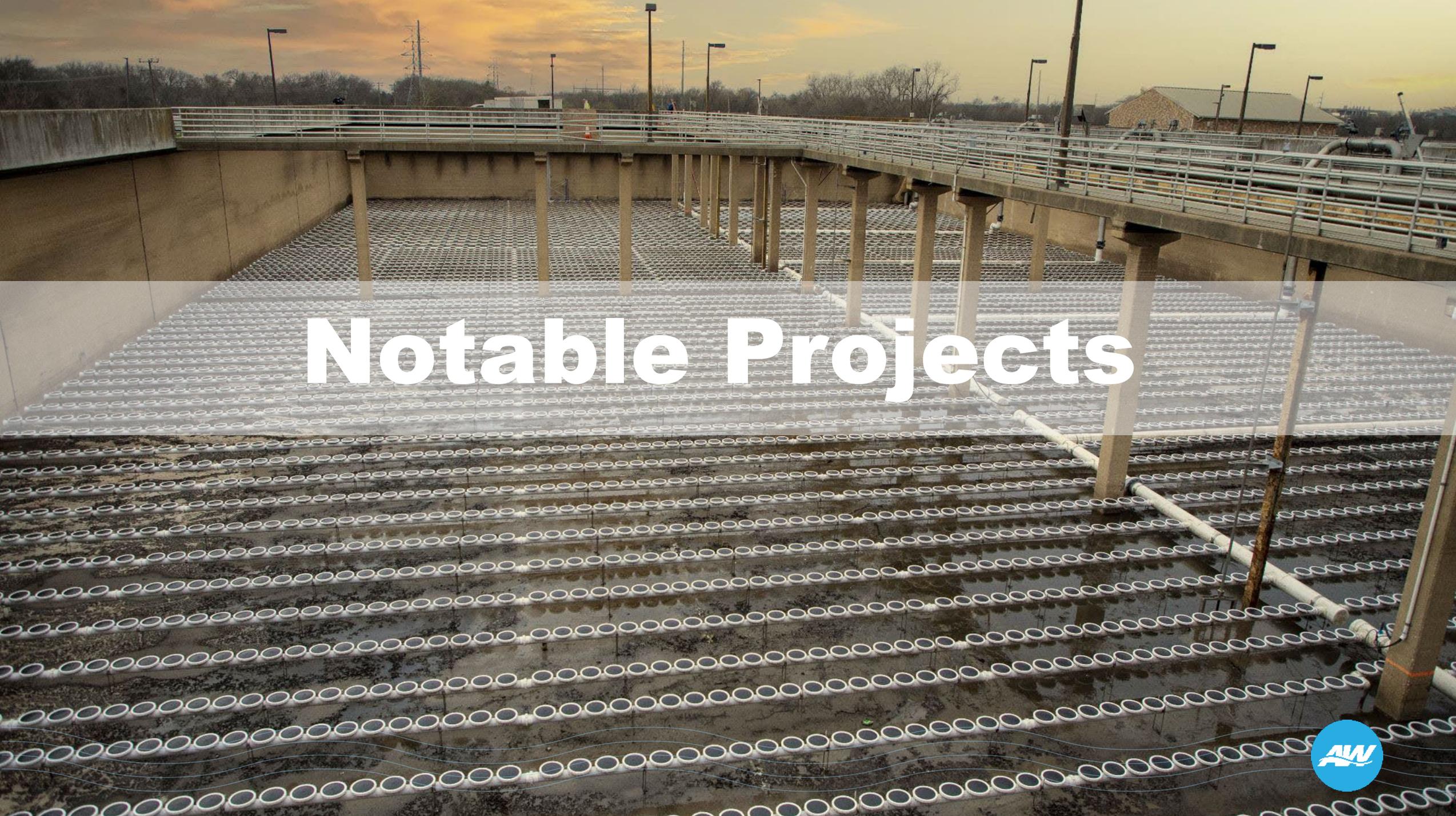
Rehabilitated Gravity Thickener



New Diffusers in all Aeration Basins



Replacement of Main Plant Lift  
Station Pumps



# Notable Projects



# Walnut Creek WWTP Expansion to 100 MGD



## ◆ Capacity:

- Existing Capacity = 75 MGD
- Capacity After Expansion = 100 MGD

## ◆ Capital Cost:

- Estimated Construction Cost: \$500 - 600 million

## ◆ Project Milestones:

- Preliminary Engineering 2022
- Final Design: 2024
- Construction NTP: 2024
- Substantial Completion: 2028

## ◆ RCA Commission Actions:

- July 20, 2022 – Final Design Phase Services



# Project Features

- Expansion from 75 MGD to 100 MGD
- More stringent effluent quality
- Major Elements:
  - Conversion of Existing Plant to Biological Nutrient Removal (BNR)
  - New 25 MGD Treatment Train Including BNR
  - Wet Weather Facilities
  - Site Improvements
- Bid packaging, phasing options, and delivery method are under consideration



# Atlas 14 Impacts

- Anticipated solution is flood wall around perimeter of site



# Primary Clarifier & Flow Equalization Basin Rehab



## ◆ Capital Cost:

- Construction Cost : \$32 - 35 million

## ◆ Project Milestones:

- Final Design: December 2023
- CMAR Packages: 2023
- Substantial Completion: October 2027

## ◆ RCA Commission Actions:

- July 20, 2022 – Construction Manager at Risk (CMAR) Contract

## ◆ CMAR Delivery:

- Primary clarifiers and FEBs located in underground structures, making access and overall constructability challenging
- CMAR delivery will allow the project team to bring in a contractor during design phase to collaborate on construction methods and release equipment earlier than traditional “low bid”



A large circular industrial tank, likely a clarifier or aeration tank, is under construction at a water treatment facility. The tank is supported by a complex metal steel truss structure. The interior of the tank is partially filled with water, which reflects the surrounding metal framework. In the background, other similar tanks and industrial structures are visible under a cloudy sky. A blue crane is positioned in the distance. The overall scene depicts a large-scale industrial construction project.

# Conclusion

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- \$370 Million in FY23-27 CIP
- Major expansion moving to design phase
- Community engagement ongoing
  - Community meeting on May 24
  - Future community meetings anticipated as Expansion project continues



# QUESTIONS

