



# STERLING NATURAL RESOURCE CENTER

Rocky Welborn

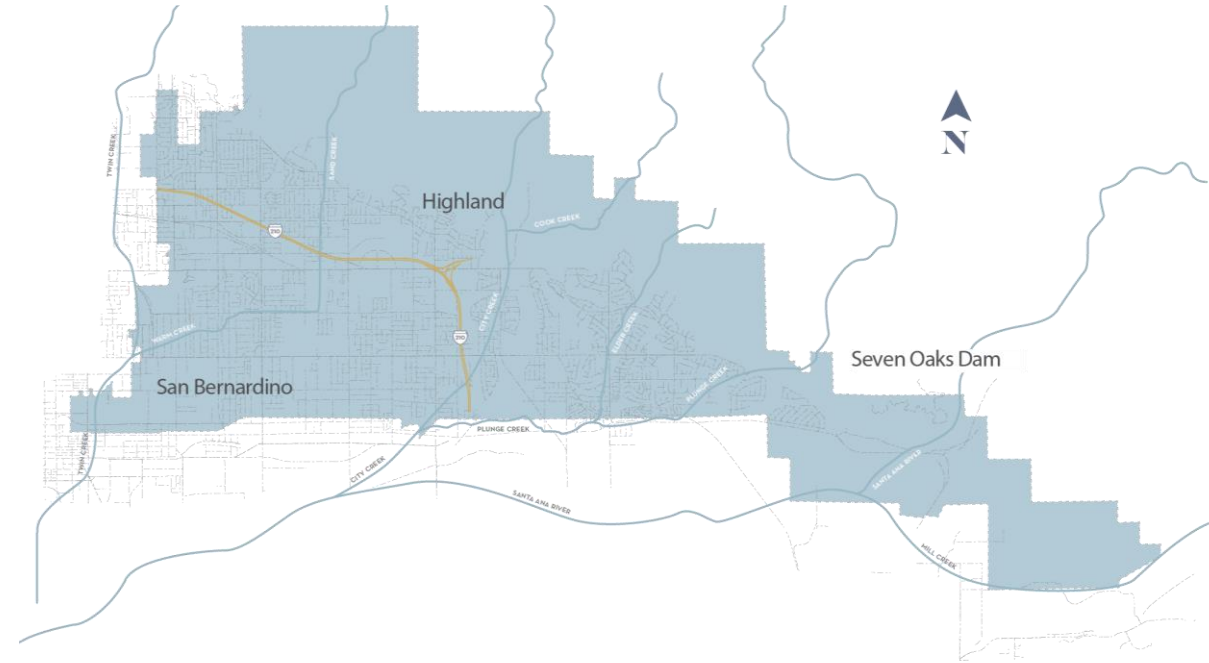
*Water Reclamation Manager, East Valley Water District*  
December 5, 2022



**EAST VALLEY**  
**WATER DISTRICT**

# COMMUNITY WE SERVE

- Providing Water and Wastewater Services
  - *City of Highland*
  - *City of San Bernardino*
  - *Portions of unincorporated San Bernardino County*
  - *San Manuel Band of Mission Indians*
- Serve Over 104,000 Residents
  - *23,000 service connections*
  - *50% considered disadvantaged community*



# ABOUT EAST VALLEY WATER DISTRICT

- Vision

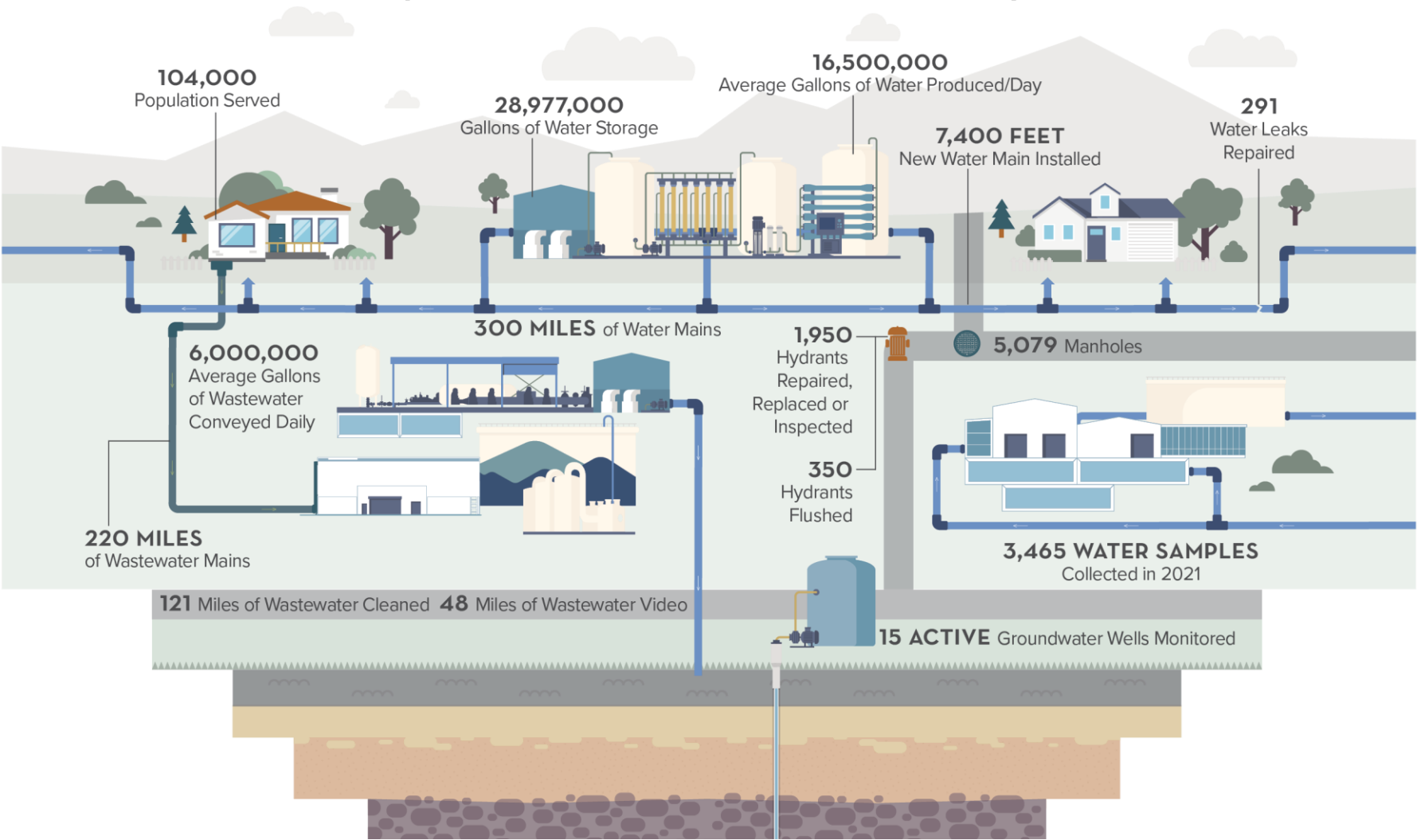
- *Enhance and preserve the quality of life for our community through innovative leadership and world class public service*

- Core Values

- *Leadership: Motivating a group of people to act towards achieving a common goal or destination*
  - *Partnership: Developing relationships between a wide range of groups and individuals through collaboration and shared responsibility*
  - *Stewardship: Embracing the responsibility of enhancing and protecting resources considered worth caring for and preserving*

# DISTRICT AT A GLANCE

[ 30.1 SQUARE MILE SERVICE AREA ]





# STERLING NATURAL RESOURCE CENTER (SNRC)

- End of the Line 8 Million Gallons a Day (MGD) Wastewater Treatment Plant, Expandable to 10 MGD
- 100% of Recycled Water Will Recharge the Local Groundwater Basin
- Combined Heat and Power Generation Via Biosolids Co-Digestion, 3 Megawatts of Electricity
- Progressive-Design-Build Project Delivery



# TEAM STERLING



# Balfour Beatty





# DESIGNED FOR PURPOSE

- Site Layout
  - *10-Acre Treatment Plant*
  - *Odor Control placement near center of plant*
  - *Noise generating equipment is physically located away from sensitive receptors and shielded where needed*
  - *Remaining open space for possible advanced treatment or possible DPR*
  - *Expandability "built-in"*



# DESIGNED FOR PURPOSE (CONTINUED)

- Process Selection
  - *Self cleaning wet well*
  - *Headworks with coarse screening, grit removal and fine screens*
  - *2-stage odor control with biotower followed by carbon adsorption*
  - *4-stage Bardenpho process with total nitrogen less than 10 mg/L*





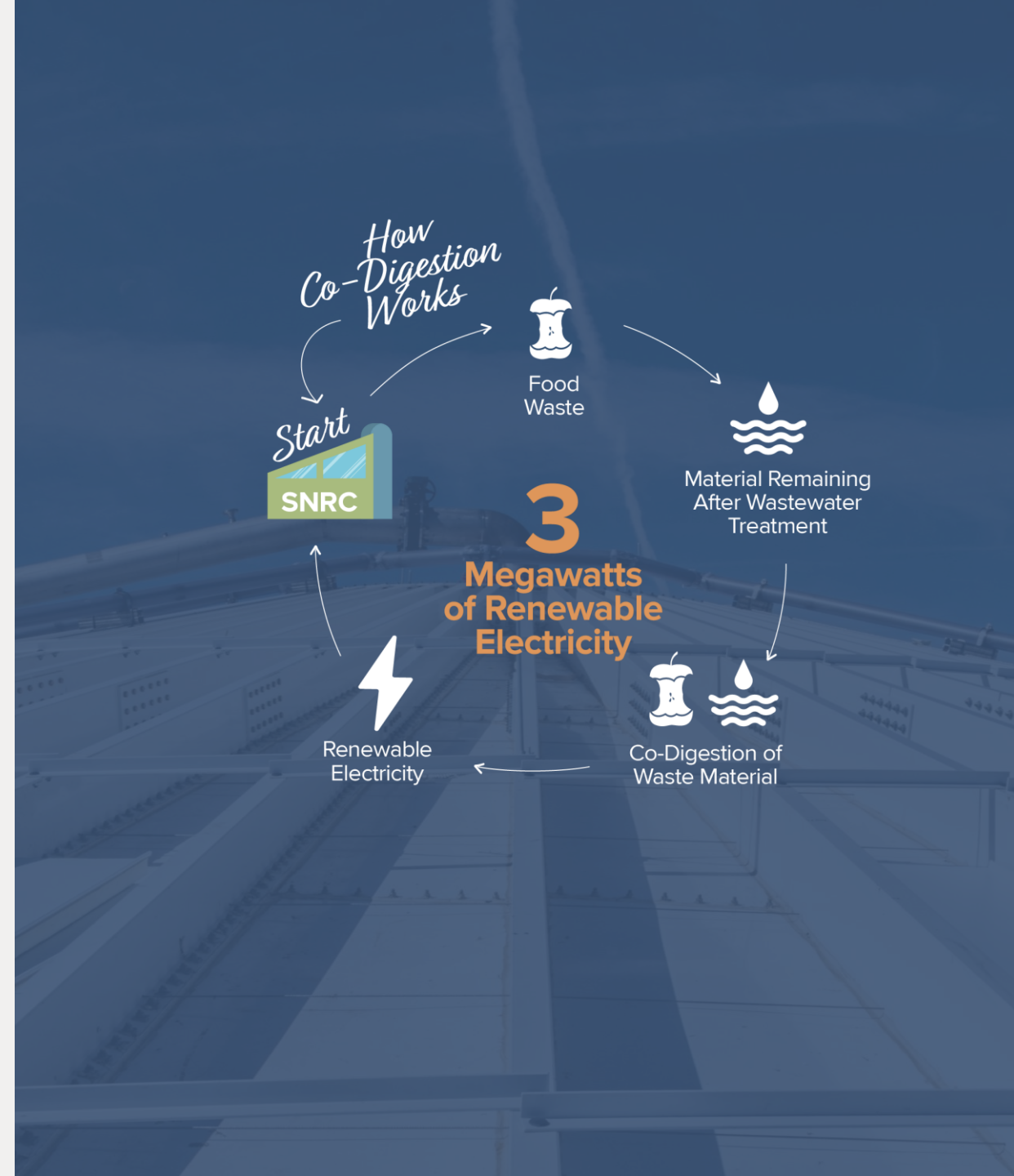
## DESIGNED FOR PURPOSE (CONTINUED)

- Process Selection
  - *4-train state-of-the-art membrane filtration system with small footprint*
  - *UV Disinfection trains*
    - 2 open channel ultraviolet
  - *Solids anerobic co-digestion using the Omnivore™ process*
  - *Biosolids processing with screw press thickening and dewatering achieving 20% solids concentration*



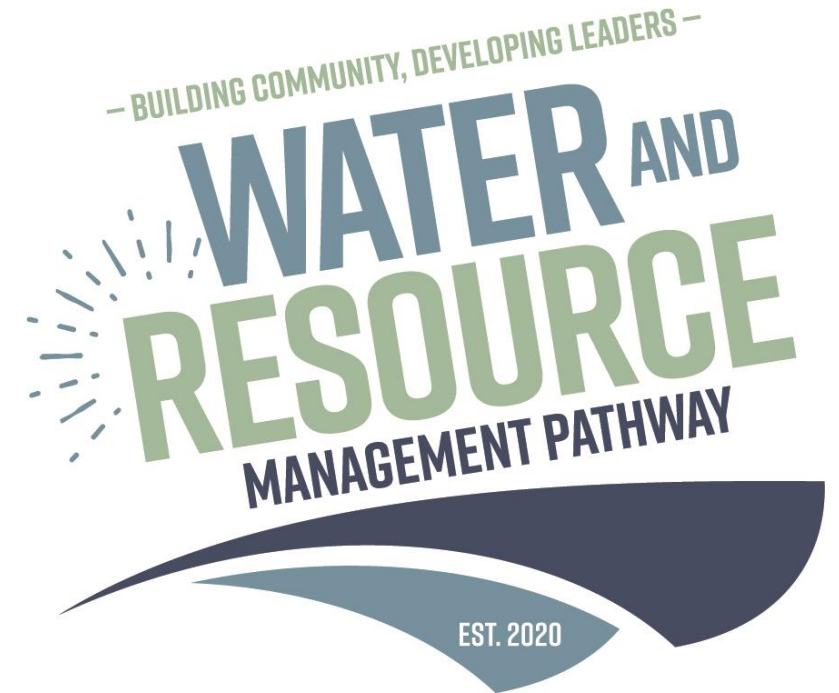
# ORGANIC WASTE DIVERSION

- Partnership With Anaergia
  - *Equipment design and startup support*
  - *Long-term maintenance agreements*
  - *Residuals management*
  - *Feedstock management*
  - *Supply consumables*
- Benefits
  - *Up to 130k gallons of HSO process capacity*
  - *Reduces miles traveled for disposal*
  - *Up to 3.0 mW energy generation with net metering capabilities*
  - *Digested biosolids sent to RBF*



# PREPARING FUTURE WATER LEADERS

- Established in 2020 to Introduce Students to Careers Within The Water and Wastewater Industry
  - *Training local students in the unique skillset of water and wastewater treatment*
- Provide Courses Taught By Industry Experts at No Cost to High School Students
- Program is Designed Prepare Students for State Certification Exams to Become Certified Operators
- 20 Students Completed Internships



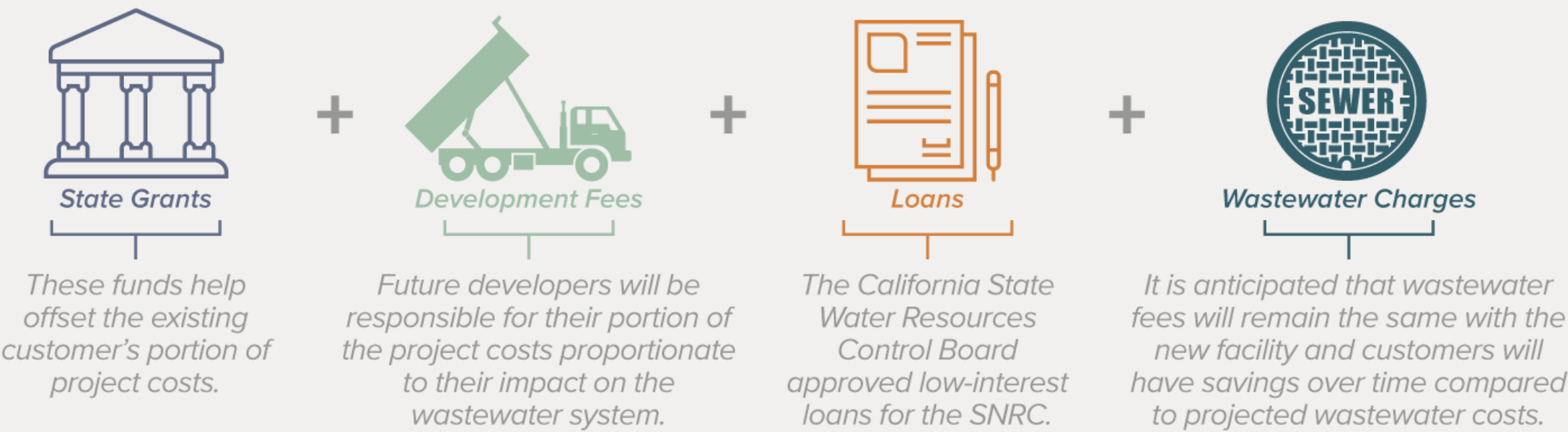


# ADJUSTING CONSTRUCTION PROTOCOLS DURING COVID-19

- Established Project COVID-19 Safety Protocol to Keep Employees Healthy
- Implemented Social Distance Meeting Standards
- Team Sterling Mobilized and Pre-purchased Materials and Supplies Limiting Global Supply Chain Disruptions
- Supply Chain Delays

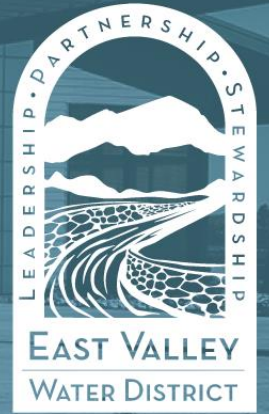


# FUNDING SOURCES





# DISCUSSION/TOUR



Enhance and preserve the quality of life for our community through innovative leadership and world class public service.