

SAN DIEGO INTEGRATED REGIONAL WATER MANAGEMENT
REGIONAL ADVISORY COMMITTEE
MAY 21, 2025



**Progressive Design-Build for the
Membrane Filtration Reverse Osmosis
Facility for Agriculture Project**

Quality Water
DEEP ROOTS



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Construction & Engineering

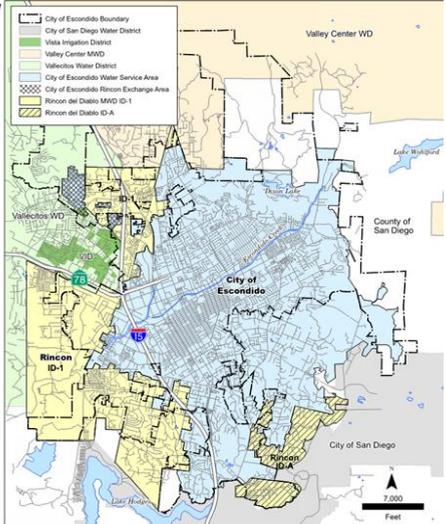
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Serving Escondido Since 1888

The City of Escondido Utilities Department:

- **WATER:** ~ 150,000 customers via the Escondido-Vista WTP
- **WASTEWATER:** ~145,000 customers via the Hale Avenue Resource Recovery Facility (HARRF)
- **RECYCLED WATER:** HARRF designed to produce up to 9 MGD of Title 22 recycled water

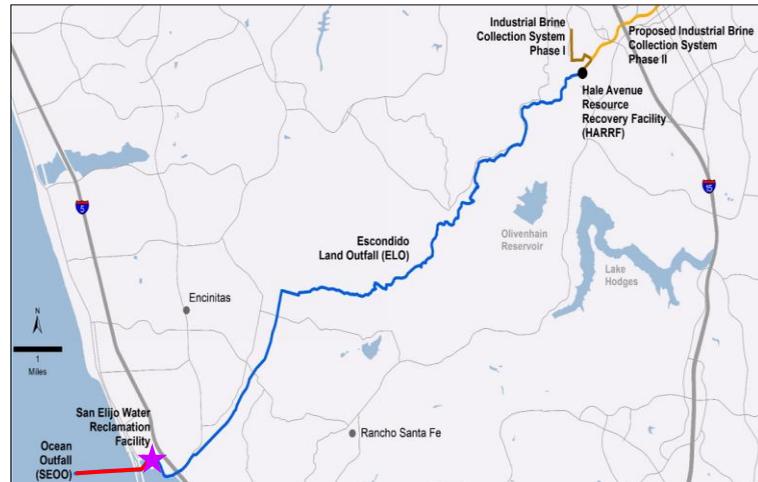



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Offsetting the Land and Ocean Outfalls

- HARRF → Outfalls
→ Pacific Ocean
- Increasing population + aging infrastructure + wet-weather events = Outfall operational constraints
- Beneficial Reuse Solutions?



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Partnering with Agricultural Community

A SOLUTION:

- ✓ **ADVANCED TREATED TITLE 22 WATER:** Higher quality water with reduced chlorides for avocados and other sensitive crops
- ✓ **PRESERVING RICH AGRICULTURAL HISTORY**
Extension of RW distribution system to convey advanced treated water
- ✓ **CONTRACTED RW RATE STRUCTURE:** Ensure beneficial feasibility for all parties
- ✓ **NEW MFRO END-USERS! :** Partnering with our local agricultural community and investing in higher quality recycled water.



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Investing in MFRO for the Community & The Future

THE PATH TO ADVANCED TREATD WATER includes:

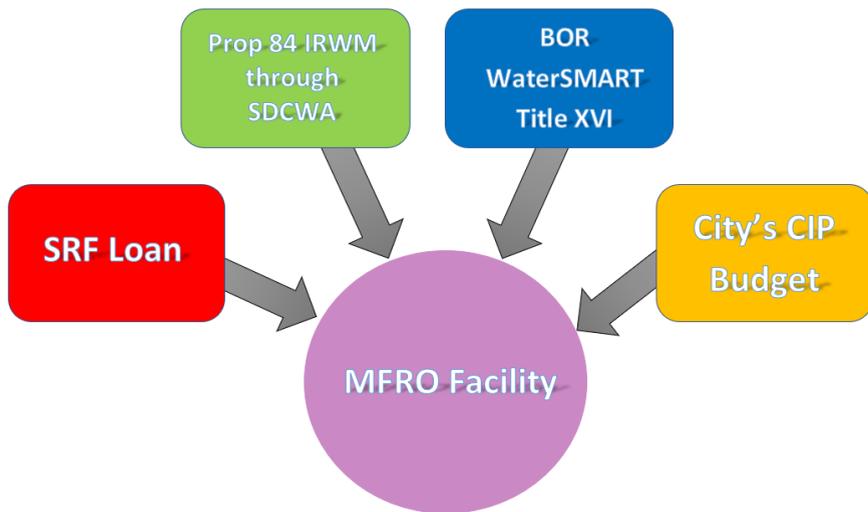
- Hale Avenue Resource Recovery Facility (HARRF)
- Membrane Filtration Reverse Osmosis (MFRO) Facility
- Intermediate Booster Pump Station (IBPS)
- Hogback Recycled Water Reservoir
- Recycled Water Easterly Agricultural Distribution System (RWEADS)

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MFRO Funding – Federal, State & Local



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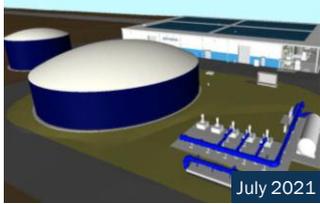
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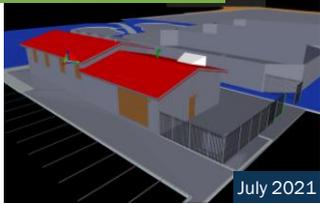
Delivering Through Progressive Design-Build

MFRO: Design → Construction

[Click here for a video fly-through of the MFRO Facility and IBPS!](#)



IBPS: Design → Construction



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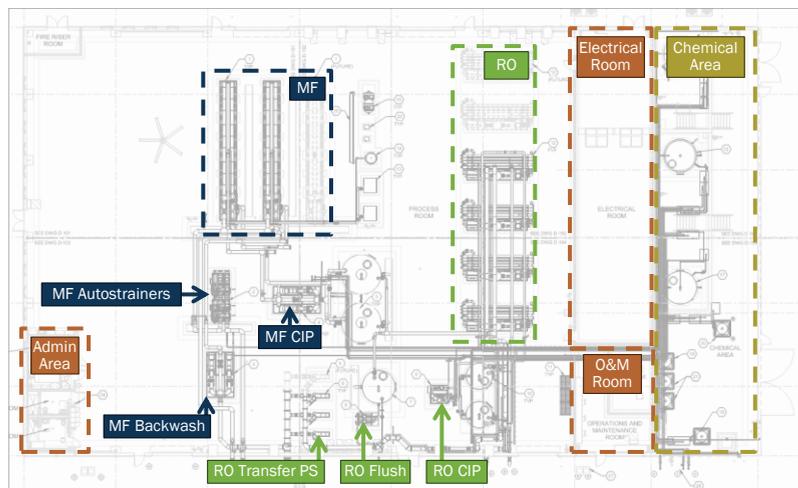
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MFRO Treatment

- ✓ 2 MGD of RO permeate
- ✓ Future 3 MGD of RO permeate
- ✓ Target chloride concentration < 80 mg/L for agricultural growers



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Constructing the MFRO

- ✓ **Construction** - 2 years (2021 - 2023)
- ✓ **Challenges**
 - ✓ COVID
 - ✓ Supply chain issues
 - ✓ Industry-wide rising material & labor costs
- ✓ **Solutions**
 - ✓ Partnering with industrial professionals
 - ✓ Relying on skilled W&WW engineers, experts and O&M staff



MF Skids



MF Backwash Pumps

MF Auto-Strainers



RO Skids

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The Intermediate Booster Pump Station (IBPS)

- ✓ **Location, location, location: Mountain View Park**
 - ✓ Coordinating with the public, neighboring residential community & park patrons
 - ✓ Accounting for historical significance & architectural aesthetics
 - ✓ Mitigating for noise, parking & park access



Historical Barn



2 New ADA Public Park Bathrooms



"Roll-up" Barn Door for Architectural Aesthetic

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Celebrating Milestones



Groundbreaking - March 2021



City Beam Signing - March 2022



Construction Complete - November 2023



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Dedication Ceremony & Ribbon Cutting - August 2024



WRCA RW Agency of the Year - September 2024

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