

Montecito Sanitary District Project Implementation

Administrative and Operations Committee

May 22, 2025



Southland.



Introductions



Brent Patera
Southland Industries
Client Executive

|
30 Years



Josh Gallo
Southland Industries
Senior Project
Manager

|
20 Years



Doug McWhinney
Southland Industries
Senior Construction
Engineer

|
30 Years



Jeff Schaller
Southland Industries
Regional Manager -
West

|
20 Years



Mike Nunley
MKN Engineers
Principal Engineer

|
30 Years



Becca Bugielski
MKN Engineers
Engineering Project
Manager

|
11 Years

Agenda

- Project
- Process
- People
- Partnership



Project

Desired Project Outcomes

Modernize the plant to reliably meet treatment permit requirements

- ✓ Replace aging and compromised infrastructure
- ✓ Improve SCADA control and electrical reliability
- ✓ Minimize Impact on Operations Staff
- ✓ Reduce energy consumption (50% to Net Zero)
- ✓ Consideration for Summerland, recycled water and consolidation





Challenges

Lack of Comprehensive SCADA

Aged Equipment

High Energy
Consumption and
Cost

No Equalization

Structural Issues
with Basins

Lack of
Pre/Primary
Treatment

Electrical
Integrity and
Safety

Preliminary Assessment Work

Southland and MKN have spent the last 14 months preparing a preliminary assessment for the project including:

- Site walks and staff interviews
- Operation and Utility Data analysis
- Review of consulting reports (Carollo & Buehler)
- AHJ, permitting, and regulatory requirements
- Energy Conservation Measure Development
- Project Cost and Savings Estimates

Table 3.0-1. Proposed Improvement Areas

Area 1	Headworks (Energy, Process Improvement, Modernization)
Area 2	Aeration Basins (Energy, Modernization)
Area 3	Clarifiers (Process Improvement, Modernization)
Area 4	RAS & WAS Pumps (Energy, Process Improvement, Modernization)
Area 5	Sludge Thickening (Energy, Process Improvement, Modernization)
Area 6	Solids Dewatering (Process Improvement, Modernization)
Area 7	Chlorine Contact Basins (Safety, Modernization)
Area 8	General Improvements (Safety, Modernization)
Area 9	Electrical Service Improvements (Safety, Modernization)
Area 10	Motor Control Center Improvements (Safety, Modernization)
Area 11	Control System Improvements (Modernization)

Figure 2.3-2. Project Locations



Note considerations for:

- Advanced Water Treatment
- Solar PV & Battery Storage (BESS)
- Equalization

**General Treatment
Facility Upgrades**

Access, Outfall,
Stormwater

Comprehensive Project

Electrical Service
and MCC
Improvements

Solids Dewatering

RAS and
WAS
Pumps

New
Chlorine
Contact
Basins

New
Secondary
Clarifiers

New
Aeration
Basins

Sludge
Thickening

Headworks
Upgrades

SCADA System Improvements

Comparing Capital Improvement Strategies

Individual CIP Projects Over Time

Challenging integration

On-going plant disruption and administrative overhead

Cost escalation

Years until the benefits are realized

Comprehensive Project

Integrated plant design, construction and commissioning

Capitalize on economies-of-scale on cost and efficiency

Minimize plant disruption and burden on staff

Expedite benefits to plant, staff and community

Comprehensive, Flexible & Collaborative

Progressive Design-Build Energy Project

- Comprehensive project for process integration and economies-of-scale
- Continuity in design and construction from assessment through final turnover
- Early design and construction and District collaboration reduces timeline and cost
- Enables District participation and control while reducing administrative impact
- Reduced energy consumption provides for simplified procurement using CA GC 4217

Design-Build Energy Process



Slide 9

BP1

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Process

Recommended Approach

Progressive Design-Build Strategy for the Montecito Plant Upgrade

MKN DESIGN CONTINUITY

Investment Grade Audit (IGA)

(What are we going to build?)

District Decision Point

Final Design and Pricing

(How and How Much?)

District Decision Point

Construction
Mechanical, Electrical, Controls
Southland

Construction
Concrete Basins
Specialty Contractor

Funding, Authorities Having Jurisdiction (AHJ) and Community Engagement

Process

Investment Grade Audit (IGA)

Comprehensive and actionable plan for plant upgrades guided by a clear Basis of Design



Validation

Functional Requirements
Regulatory Requirements
Process Alternatives
Stakeholder Engagement

BASIS OF DESIGN

Preliminary Design

Plant Layout
Process Flow Diagrams
Equipment Sizing & Selection

ESTABLISHED PROJECT SCOPE

Construction Plan & Pricing

Subcontractor Estimates
Equipment Quotes
Phasing / Schedule
Funding Development

IGA DELIVERABLE

Decision Point: District Approval of Scope for Final Design and Pricing

Final Design and Pricing Phase

- ✓ District reviews IGA and confirms work to move forward
- ✓ MKN completes design of all approved Energy and Non-Energy work
- ✓ Develop firm-fixed construction costs
 - Mechanical, Electrical and SCADA from Southland
 - Concrete Basins from selected specialty contractor
- ✓ Team coordinates with regulators to begin permitting and approval processes
- ✓ Construction phasing schedule is developed to minimize impact on plant operations and align with funding
- ✓ Project funding is confirmed



Decision Point: District Approval of Final Project Scope and Funding

Funding Support

Inform and Collaborate

- Preliminary and Updated Construction Costs
- Review District Finances and/or Financial Advisor Options to Leverage Cash-on-Hand and available Loans, Grants, and Bonds
- Detailed Financial Analysis
- Application Process Assistance
- Publicity & Messaging Support
- Community Engagement Facilitation



**US Army Corps
of Engineers®**



Process

Construction Phase



Southland.

Best In Class Design-Build Construction

- Construction Documents
 - Permitting and Regulatory Support
 - Design Support, RFIs, and Submittal Review
 - Geotech and Special Inspections
 - Installation Review and QC
 - ECM and Overall Plant Commissioning
-
- Engineering Design Review and QC
 - Site Safety and Access Coordination
 - Scheduling Responsibility
 - Subcontractor and Materials Management
 - Mechanical Scope Installation
 - Equipment Startup and Testing

2012
Year Founded

75+
Number of
Employees

100+
Number of Clients
Since 2012



Service Areas

Example MKN Staff Projects

Liquid Treatment

- Bar Screens
- Primary Treatment
- Biological Treatment
 - Disinfection
- Advanced Treatment

Solids Treatment

- Conditioning
- Thickening
- Dewatering
- Disposal

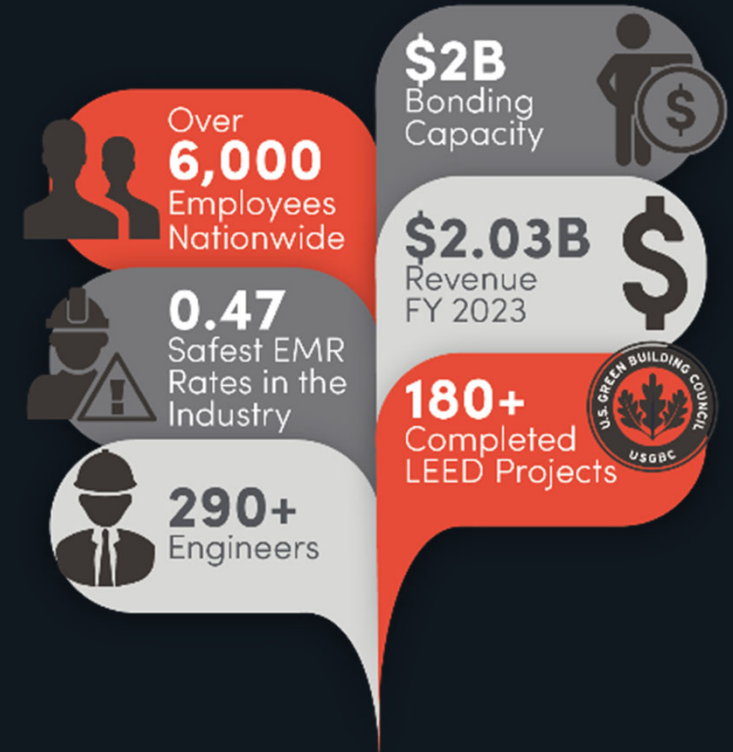
- Headworks Barscreen, Atascadero
 - Headworks Barscreen, Morro Bay/ Cayucos SD
 - Headworks Barscreen, South SLO County SD
 - Blacklake WWTP Headworks Rehab, Nipomo CSD
 - Influent Lift Station, Guadalupe
 - Chemical System Upgrades, Camarillo
 - Channel Aeration Improvements, LVMWD
 - Clarifier No. 1 Upgrade, Santa Maria
 - Biotower Rehab Assessment, City of Oxnard
 - Primary Clarifier Rehab, LVMWD
 - Tertiary Treatment System, San Simeon CSD
 - MBR Replacement, Santa Paula
 - Advanced Treatment System (Reverse Osmosis), Santa Paula
 - Palo Alto Secondary Clarifier Upgrades
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- Digester 1 Rehab, Morro Bay/ Cayucos SD
 - Digester 3, 4 and 7 Rehabilitation, Fresno
 - Southland WWTP Screw Press, Nipomo CSD
 - Sludge Dewatering Study, Nipomo
 - HCTP Screw Press, Thousand Oaks
 - Sludge Thickening System Evaluation, San Luis Obispo
 - Biosolids Handling Facility, South SLO County SD
 - Biosolids Drying Feasibility Study, Thousand Oaks
 - Biosolids Management Plan, City and County of Honolulu

People

Southland Industries

Design-build mechanical, electrical, plumbing, & controls contractor

- Energy solutions + Preconstruction, Design Engineering, Lean Construction, and Financial Analysis
- Employee owned, founded in 1949
- Based in Southern California
- Active on the Central Coast
 - Santa Maria
 - South San Luis Obispo County CSD
 - Ventura Medical Center
 - Chumash Casino
 - Vandenberg AFB
 - UC Santa Barbara
 - Santa Barbara Community College
 - Google Quantum AI Campus



People

Southland & MKN: Key Projects



City of SLO WRRF



City of Chico WPCP



City of SLO WTP



Cambria CSD WWTP

Southland & MKN are Committed to the District's Success

Southland and MKN Provide the District:

- Best-in-Class Design and Construction Specialists
 - Demonstrated experience in design-build energy projects
 - Particular experience in plants <10MGD
 - Objective Assessment & Specification
- Experienced Central Coast Workforce
 - Local team to provide design, construction and ongoing support
 - Familiarity with regulators in Santa Barbara County
- Financial and Reputational Protection
 - Substantial Bonding Capacity (\$2.5B) and Annual Revenue (\$3.5B)
 - Industry Leading Safety Rating: ENR .40



Montecito Sanitary District

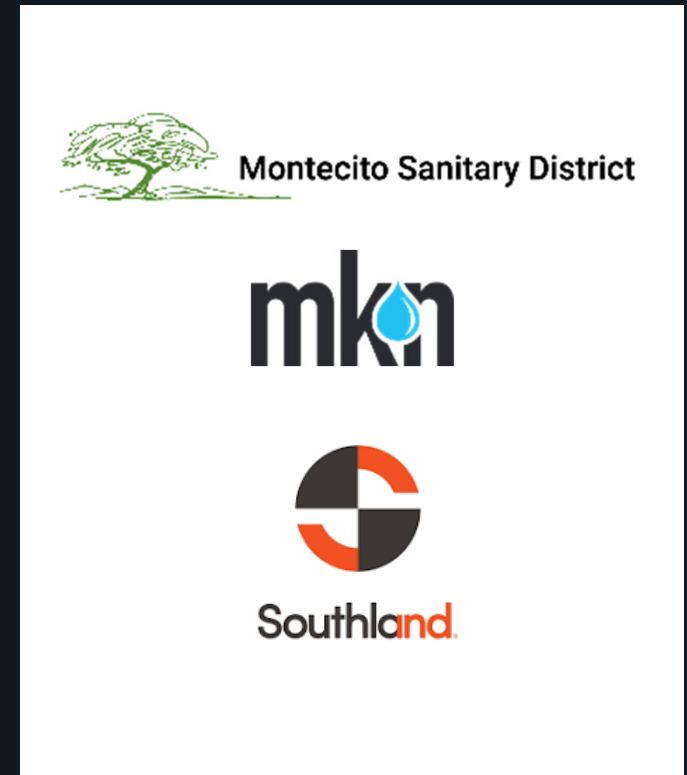


Southland.

Southland & MKN are Committed to the District's Success

The Southland Project Structure Provides the District :

- District Control
 - Retains control of decisions throughout the IGA, Design, and Construction Phases
 - Does not require large up-front financial commitments
- Reduced Cost
 - District decides what moves forward at each phase, does not pay for unnecessary work
 - The right people are doing the right work without unnecessary layers adding cost
- Streamlined Procurement
 - Reduced cost to get started on the work
 - District allowed to select partners that will provide best overall value



Questions?