

## MEINERS OAKS WATER DISTRICT BOARD OF DIRECTORS REGULAR MEETING AGENDA

Due to the COVID-19 pandemic, all meetings of the Board will be conducted via teleconference until further notice, in accordance with CA Executive Order N-29-20.

JOIN BY COMPUTER: https://global.gotomeeting.com/join/933319557

**DIAL-IN (US TOLL-FREE):** 1 866 899 4679

**ACCESS CODE**: 933-319-557

If you require special accommodations for attendance at or participation in this meeting, please notify our office 24 hours in advance at (805) 646-2114.

(Govt. Code Section 94594.1 and 94594.2 (a))

#### June 15, 2021 at 6:00 pm.

- 1. Call meeting to order
- 2. Roll call
- 3. Approval of the minutes: May 18, 2021, Regular Meeting
- 4. Public comment for items not appearing on the agenda

<u>Right to be heard</u>: Members of the public have a right to address the Board directly on any item of interest to the public that is within the subject matter jurisdiction of the Board, provided that no action shall be taken on any item not appearing on the agenda unless the action is otherwise authorized by subdivision (b) of Section 54954.2.

Please Note: If you have comments on a specific agenda item(s), please fill out a comment card and return it to the Board Secretary. The Board President will call on you for your comments at the appropriate time, either before or during the Board's consideration of that item.

<u>Closed Session Agenda</u> - Adjourn to Closed Session (**6:10 pm**): It is the intention of the Board of Directors to meet in Closed Session to consider the following items:

#### 5. Closed Session Items

- a) The Board of Directors may hold a closed session to discuss personnel matters or litigation, pursuant to attorney/client privilege, as authorized by Government Code Section 54957, 54956.8, & 54956.9 and 54957.
- State Case: SBCK vs. SWRCB, San Francisco Superior Court, Case # CPF-14-513875

- Meiners Oaks Water District vs. Moll, Ostling and Ojai Vista Farms 56-2018-00515474-CU-OR-VTA/
- Personnel Matters

#### Regular Agenda (\*\*\*Reconvene Regular Meeting, Estimated Time 7:00 p.m.\*\*\*)

#### 6. Financial matters

Approval of Payroll and Payables from May 16, 2021, to June 15, 2021, in the amount of:

Payables - \$ 100,576.96

Payroll – \$ 40,293.10

Total – <u>\$ 140,870.06</u>

#### 7. Board action and/or discussion

- a) Resolution 06152021: Larry Harrold for years of service. (Etchart) Attachment Recommended Action: Approve Resolution 06152021.
- b) Discuss and consider selection of contractor and approval for Meiners Rd. antenna foundation and conduit. (Martinez) Attachment Recommended Action: Select contractor and approve quote.
- c) Discuss and select a consultant for preparing for a nitrate removal feasibility study. (Ketnosh) Attachments

  <u>Recommended Action</u>: Select engineering consultant.
- d) Status update on search for replacement Director. (Kentosh)

  Recommended Action: Receive update on progress for replacement Director.
- e) Status update on FY 21-22 Fiscal Budget . (Kentosh/Martinez)

  <u>Recommended Action</u>: Receive update on progress of FY 21-22 Budget.
- f) Status update on the annual Consumer Confidence Report 2020. (Martinez) Recommended Action: Receive update on CCR 2020.

#### 8. General Manager's Report

The Board will receive an update from the General Manager on District Operations and Maintenance.

#### 9. Board Secretary's Report

The Board will receive an update from the Board Secretary on District Administrative and related matters.

#### 10. Board Committee Reports

- Executive Committee
- UVRGA
- Allocation Program Committee
- Budget/Rate Committee
- Emergency Management Committee
- Staff Procedures Ad-hoc Committee
- New Meters & Expansion of Services Committee

#### 11. Old Business

- State Water
- Water Supplier Partnership
- Matilija Dam Removal Update
- Nitrate Removal CA Wildlife Conservation Grant

#### 12. Director Announcements/Reports

13. Adjournment The next scheduled Regular Board meeting is July 20, 2021.

Regular Meeting

May 18, 2021

6:00 pm

Meiners Oaks Water District
202 W. El Roblar Drive
Oiai, CA 93023-2211

### **Minutes**

The meeting was called to order at 6:00 pm.

#### 1. Call to Order

The meeting was called to order by the Board President, Mike Etchart, at 6:02 pm via teleconference.

#### 2. Roll Call

**Present:** Board President, Mike Etchart, Board Directors: James Kentosh, Diana Engle, Christian Oakland, and Larry Harrold. Staff Present: General Manager, Justin Martinez, Board Secretary, Summer Ward. Attorneys Present: Stuart Nielson, Jeannie Zolezzi (closed session only), Greg Jones (closed session only).

Absent: None.

#### 3. Approval of the Minutes

#### Approval of April 20, 2021, Regular Meeting Minutes

Director Engle made the motion to approve April 20, 2021, regular meeting minutes. Director Oakland seconded the motion.

#### No public comment.

Engle/Oakland

#### Roll Call Vote:

Etchart - Y Engle- Y Harrold - Y Kentosh - Y Oakland - Y

All Ayes - M/S/C

#### 4. Public Comments

- Ms. Von Gunten was present, provided statement of attendance.
- Mr. D. Hill was present for items 7c and 7d, Meiners Road tank and antenna relocation.

#### \*\*The Board went into closed session at 6:08 pm\*\*

- \*\*G. Jones joined the meeting at 6:10pm\*\*
- \*\*J. Zolezzi joined the meeting at 6:20pm\*\*

- 5. <u>Closed Session:</u> The Board of Directors held a closed session to discuss litigation, pursuant to the attorney/client privilege, as authorized by Government Code Sections §54957 & 54956.8, 54956.9, and 54957.
  - State Case: SBCK v. SWRCB, San Francisco Superior Court, Case # CPF-14-513875
  - Meiners Oaks Water District v. Moll, Ostling and Ojai Vista Farms 56-2018-00515474-CU-OR-VTA/

Attorney S. Nielson stated that the Board discussed current ongoing litigation in closed session, and no actions were taken.

#### 6. Financial Matters

#### Approval of Payroll and Payables from April 16 to May 15, 2021, in the amount of:

Payables: \$101,752.83

Payroll: \$ 39,455.06

Total: \$141,207.89

Director Harrold made the motion to the Payroll and Payables from April 16 to May 15, 2021. Director Kentosh seconded the motion.

#### No public comment.

Harrold/Kentosh

#### **Roll Call Vote:**

Etchart - Y Engle- Y Harrold - Y Kentosh - Y Oakland - Y

All Ayes - M/S/C

#### 7. Board Discussion/Actions

a. Discussion and consider approval of an approach for the design of a replacement filtration plant. (Kentosh/Martinez)

Director Kentosh reviewed that the Board approved the sole source RFP for WREA in December 2020. Proposal received from Mr. Nagy but has been on hold during GM transition. Director Kentosh recommends revising the RFP to send out to additional engineering firms. Mr. Martinez supports the expanded RFP approach.

Director Oakland requested clarification on sole source bid process rather than setting a threshold for requesting three bids. Attorney Nielson stated that contract law allows for sole sourcing for special professional services, such as engineering work.

<sup>\*\*</sup>G. Jones left the meeting at 6:29 pm\*\*

<sup>\*\*</sup>J. Zolezzi left the meeting at 6:47 pm\*\*

<sup>\*\*</sup>The Board adjourned closed session at 6:52 pm\*\*

Director Kentosh and Mr. Martinez stated a video conference is scheduled for May 20 with WREA, will explain the expanded RFP process and provide an opportunity for WREA to submit a revised RFP.

No motion.

#### **Public Comment:**

Ms. Von Gunten agreed with Director Oakland, referred to existing MOWD policy on bid process, which may need updating.

# b. Receive an update and discussion regarding the Nitrate Removal Grant. (Kentosh)

Director Kentosh had prepared an RFQ for the Nitrate Feasibility Study and sent to three firms. All firms initially expressed interest; however, one has since replied that they will not be able to submit an RFQ. The remaining two are highly qualified, virtual interviews will be conducted with each firm by Directors Kentosh and Oakland, as well as Mr. Martinez. The team will recommend a firm, along with the firm's proposal for Board approval.

Director Engle noted that each of the two firms are great and has worked with each through her firm; highlighting that each are a delight to work with.

Ms. Ward to set interview schedules.

No motion.

No public comment.

## c. Discussion and consideration of customer letter regarding Meiners Road Tank site. (Martinez)

Mr. Martinez introduced Mr. Derek Hill, the new owner of the Meiners Road tank property. Mr. Hill stated he had the pleasure of meeting with Mr. Martinez at the property to discuss the easement layout and potential options for the removal of the tank and relocation of the antenna. Mr. Martinez explained that if MOWD choses to not install a new tank, there are several options. Elevations and pump curves to maintain water pressure are being reviewed with Director Kentosh. Mr. Martinez noted that the water lines that were temporarily run-on top of the ground around the old tank have been buried and 47 psi measured at the customer meters. Director Kentosh and Mr. Martinez will report back to the board with additional information.

Mr. Hill stated he is appreciative of the discussion and willing to help any way that he can, to achieve the best outcome possible.

Attorney Nielson stated that if the option to relocate MOWD equipment is pursued, an easement transfer would need to be completed.

No motion.

No further public comments.

# d. Discussion and consider approval of Meiners Road Tank antenna relocation expense of \$16,000. (Martinez)

Mr. Martinez spoke with CIT, Oilfield Electric and Byrd Electronics regarding the relocation of the antenna and panel onto a new tower, which will need to be completed before the tank can be removed. The current antenna sits on top of the tank. The bids for the footing of the new tower are pending, estimated to be around \$5,000. Mr. Martinez estimates the total relocation cost to be approximately \$16,000.

Director Kentosh made the motion to approve the Meiners Road antenna relocation expense up to \$18,000. Director Oakland seconded the motion.

Director Engle requested clarification on why we need the antenna. Mr. Martinez explained that is used for the district's telemetry system and is stationed at the highest point in the district; the other towers bounce the signal off of that antenna, down to the office.

Director Etchart requested that Mr. Martinez have Byrd Electronics confirm the new antenna location is appropriate for signal strength. Additionally, Mr. Martinez is to determine if MOWD uses a public open frequency or if it maintains its own FCC license.

#### **Public Comment:**

Mr. Hill requested to meet onsite to discuss location of the antenna before final decisions are made.

Ms. Von Gunten asked if the district considered line of sight, FCC regulations, and reception/transmission strength with the new location.

Kentosh/Oakland

#### **Roll Call Vote:**

Etchart - Y Engle- Y Harrold - Y Kentosh - Y Oakland – Y All Ayes – M/S/C

# e. Discussion and consider approval of SeCorp quote for Chlorine gas PPE, Fittesting and training of up to \$5,500. (Martinez)

Mr. Martinez reviewed the discussion from last month's regular meeting regarding chlorine safety. Staff contacted other local GM's for references to local companies that supply chlorine safety PPE and training. SeCorp confirmed with MSA the necessary PPE for district's needs and will facilitate the operator fit-testing, training and ongoing maintenance.

Director Engle made the motion to approve the SeCorp quote for Chlorine gas PPE, Fittesting and training up to \$5,500. Director Kentosh seconded the motion.

#### No public comment.

Engle/Kentosh

#### **Roll Call Vote:**

Etchart - Y Engle- Y Harrold - Y Kentosh - Y Oakland – Y

All Ayes – M/S/C

f. Discussion and consider approval of the part-time, temporary Utility Helper position expense of \$19,000. Approval of GM's standby/over-time salary tentatively July – October 2021, due to staff military leave of absence. (Martinez)

Mr. Martinez reported that Levi will be on military leave starting July 8 for up to 20 weeks. Mr. Martinez requested approval for one temporary, part-time utility helper position, with no health benefits for the months July through December 31. The temporary position will assist with daily maintenance work and project labor, Monday - Thursday 8-5 and Fridays 8-12. The estimated salary expense without benefits is \$19,000.

Director Engle made the motion to approve the part-time, temporary utility helper position for \$19,000, July – December 2021. Director Kentosh seconded the motion.

Director Etchart asked if it would be beneficial to have a permanent part-time position. Mr. Martinez stated it would be ideal to have a part-time Operator in Training position in the future.

The Board requested that the approval of GM standby/OT during staff military leave be tabled to June's closed session, to discuss personnel matters, after the Executive Committee can meet to discuss in more detail.

#### Public Comment:

Ms. Von Gunten noted that the Brown Act requires all compensation decision be made in open session for the public.

Engle/Kentosh

#### Roll Call Vote:

Etchart - Y Engle- Y Harrold - Y Kentosh - Y Oakland – Y

All Ayes - M/S/C

# g. Discussion and consider approval of Well #8 site clean-up contractor expense of up to \$13,200. (Martinez)

Mr. Martinez referenced last month's site assessment report regarding the poor status of the Well 8 grounds, including oversized spoils piles from previous leak repairs. Mr. Martinez reviewed the three quotes received to perform the site clean-up and recommended Evan's excavating, as the lowest bid of \$6,500.

Director Kentosh made the motion to approve the Well 8 site clean-up expense of \$6,500. Director Harrold seconded the motion.

Director Kentosh stated that the reference to the Nitrate Grant is unnecessary, as the inkind funds will be used for staff hours, not for site clean-up.

#### No public comment.

Kentosh/Harrold

#### Roll Call Vote:

Etchart - Y Engle- Y Harrold - Y Kentosh - Y Oakland – Y

All Ayes - M/S/C

#### 8. General Manager's Report

Mr. Martinez reported that he spoke with Casitas GM, Mike Flood regarding the new water year MOWD allocation, previously about 1,000 AF. Mr. Martinez will be meeting to discuss the allocation with Mr. Flood in more detail. During the initial district site assessment, it was identified that several electrical panels were not locked, all new locks have been installed on district panels and gates. All stock inventory that approved last month has been received and is available for use. Mr. Martinez had Oilfield Electric onsite to conduct staff training on the generators. New SOPs are being drafted by the staff and will perform in-field SOP testing before finalized. Wells 1 and 2 production levels are concerning, being monitored closely.

Director Oakland offered to assist with the in-field testing of the generator SOPs.

Director Engle reported that there has been discussion in other setting that Casitas has implemented an Adjudication fee for certain customers only. Ms. Ward is to research and provide a follow-up regarding the MOWD bill statements from Casitas.

#### **Public Comment:**

Ms. Von Gunten stated it was a very good report.

#### 9. Board Secretary's Report

Ms. Ward provided the monthly Board Secretary update. All Form 700s were submitted to the County of Ventura on-time. Several annual water reports have been completed and submitted including the Annual Water Report, eAR and quarterly PCI Control Scan. Staff attended additional Beacon meter reading training, AWA "Is your water supply safe from cyber-attack," and scheduled for the upcoming CSDA "Addressing cybersecurity risks." Directors that have not yet completed bi-annual Harassment and Ethics training, need to do so before June 30. Ms. Malone will be contacting Directors individually to complete the annual County of Ventura Auditor-Controller signature authorization form.

Work continues on the FY 19-20 Financial Audit. Accounts receivable report on delinquent customer accounts, continues to show 26 accounts with balances older than 4 months. The current CA state of emergency and CA Utility Commission continue to restrict disconnection for non-payment. The total outstanding delinquent balance for these accounts total approximately \$10,000. In April individualized customer letters were mailed to account holders, in May customer door hangers were placed, with requested contact to make payment arrangements. The door hangers made the most significant impact in reaching customers. No flow restrictors have been placed at this time.

Ms. Ward reviewed that Tyler Incode has not yet completed the billing system reconfiguration required to implement the new allocations. The changes that had been made were not accurate, specifically the required annual allocations for agriculture and commercial accounts. The annual Consumer Confidence Report is in progress with FGL data pending. The Nitrate Removal Grant progress report #3 will be due by July 10.

Service orders and monthly accounts receivable totals are consistent for the time of year. There was one customer complaint regarding water discoloration/sediment, field operator dispatched within 30 minutes, took water sample which showed no discoloration or sediment, when attempting to notify customer, they shut door on operator and did not wish to engage in further discussion. Field operator stated it likely came from a carbon filter in the refrigerator that had not been flushed properly.

#### 10. Board Committee Reports

- Executive Committee: To be scheduled.
- UVRGA: Director Engle reported that the GSA continues to meet frequently as the technical work is being presented. The GSA has authorized staff to move ahead with the proposed sustainability criteria, including the proposed criterion for the effective pumping in the basin on surface water flows. Director Engle encouraged Directors to visit the UVRGA website to review the presentations, memos and reports, it all public information. The GSA has made its initial set of required decisions and staff is preparing a draft GSP report, which will have a 60-day public review period. As a reminder SGMA gives long time frames to meet the criteria, so the GSA will not be proposing any management criteria at this time, but has developed a glide path for when that would

start. GSA costs to member agencies will remain high, as the grant intended to cover the monitoring expenses was not received. The GSA will be looking at its long-term budget at the next month's meeting. Director Engle asked if the MOWD Budget Committee would be looking at including the GSA fees in the customer per unit cost, as this is a cost of producing water.

- Budget/Rate Committee: Ms. Ward reported that staff held a budget preparation meeting on May 13 and the draft budget will be shared with the Budget Committee for further consideration.
- Emergency Management Committee: No meeting.
- Staff Procedures Committee: No meeting. Director Kentosh surveyed Directors' opinion on returning to in-person meetings. The majority of the Board prefers the virtual meetings, as the ongoing COVID-19 situation is not certain.
- New Meters & Expansion of Services Committee: To be scheduled.

#### 11. Old Business

- State Water: No update.
- Water Supplier Partnership: No update.
- Matilija Dam Removal Update: Director Engle noted that the deconstruction of the Santa Ana Bridge was slated to begin in April 2021, has anyone been by to see if it has begun? No attendees were aware of the deconstruction work beginning.
- Nitrate Removal: CA Wildlife Conservation Grant Discussed under item 7b.

#### 12. Director Announcements/Reports

- Director Engle: Attending 3-hour State Water Board meetings. To Larry, wishing you satisfaction in all that you do!
- Director Harrold: due to personal and work reasons he will be leaving the Board in June, after serving for 10 years.
- Director Oakland: Fair winds and following seas, Larry.
- Director Kentosh: asked if anyone is attending the Ventura Watershed Council meetings regularly? Diana, yes, every other month and she will be presenting on June 3. Ms.
   Ward to contact the Council to get Mr. Martinez added to the meeting invite and any necessary Council committees.
- Director Etchart: Really liking everything that Justin, Summer and Staff have been doing, pleased with how all is going. We will need to discuss the Director appointment process for Larry's seat.

#### 13. Meeting Adjournment

There being no further business to conduct at this time, Board President, Mike Etchart adjourned the meeting at 9:00 pm.

**Board Secretary** 

**Board President** 







#### Meiner's Oaks County Water District, CA

By Vendor Name

Date Range: 05/16/2021 - 06/15/2021

Vendor Number Payable # Bank Code: AP Bank-	Vendor Name Payable Type AP Rank	Post Date	Payment Date Payable Description	Payment Type on	Discount Am Discount Amount		Payment Amount able Amount	Number
AWAVC	Association of Water Age	ncies	06/11/2021	Regular		0.00	75.00	9741
06-13412	Invoice	05/26/2021	CCWUC Virtual Tra	-	0.00	0.00	75.00 75.00	9/41
AT&T	AT&T		05/27/2021	Pogular		0.00	240.64	0727
<u>0</u> 1840521	Invoice	05/13/2021	Office Phones	Regular	0.00	0.00	210.64 210.64	9/2/
		03/ 13/ 2021	Office Friories		0.00		210.04	
AT&T	AT&T		06/11/2021	Regular		0.00	586.66	9742
08330521	Invoice	05/19/2021	Office Phones		0.00		586.66	
AUTOSU	Automotive Supply - Ojai		06/11/2021	Regular		0.00	56.55	9743
<u>518373</u>	Invoice	05/03/2021	Wheel Chock for G	•	0.00	0.00	36.62	3743
<u>520187</u>	Invoice	05/27/2021	Wiper Blades		0.00		19.93	
CALPERS	California Public Employee	oc! Poticomont	0E /21 /2021	Donk Deoft		0.00	2 222 25	
INV0001733	Invoice	05/14/2021	05/31/2021 Health	Bank Draft	0.00	0.00	•	DFT0001270
	III VOICE	03/14/2021	ricalcii		0.00		3,380.26	
CALPERS	California Public Employee	es' Retirement	05/25/2021	Bank Draft		0.00	16.23	DFT0001279
<u>051421</u>	Invoice	05/14/2021	Premium		0.00		16.23	
CALPERS	California Public Employee	es' Retirement	05/31/2021	Bank Draft		0.00	3,380.26	DFT0001281
<u>INV0001745</u>	Invoice	05/28/2021	Health	Sum State	0.00	0.00	3,380.26	DI 10001281
CALCTATE	a. I.a			_			0,000.20	
<b>CAL-STATE</b> <b>187450</b>	Cal-State	05/17/2021	05/27/2021	Regular		0.00	237.09	9728
187773	Invoice Invoice	05/17/2021	Portable Toilet Portable Toilet		0.00		115.73	
<u> 10///5</u>	mvoice	03/22/2021	Portable Tollet		0.00		121.36	
CMWD	Casitas Municipal Water D	istrict	06/11/2021	Regular		0.00	20,445.38	9744
<u>261150521</u>	Invoice	05/28/2021	Fairview Standby		0.00		943.84	
261150521PP	Invoice	05/28/2021	Payment Towards		0.00		18,368.35	
<u>262000521</u>	Invoice	05/28/2021	Hartmann Allocation		0.00		189.35	
<u>300650521</u>	Invoice	05/28/2021	Tico & La Luna Star	idby	0.00		943.84	
CLEANCO	Cleancoast Janitorial		05/27/2021	Regular		0.00	300.00	9729
<u>1348</u>	Invoice	05/26/2021	May Janitorial		0.00		300.00	
CIT	Coastal Instrumentation &	Talamata	05/11/2021	Dogulos		0.00	4.750.00	
21-007	Invoice	06/03/2021	06/11/2021 Tower	Regular	0.00	0.00	4,750.00	9745
22.007	myolec	00/03/2021	Tower		0.00		4,750.00	
CVTDEP	County of Ventura Transpo		06/11/2021	Regular		0.00	170.00	9746
<u>315277</u>	Invoice	05/11/2021	404 Lomita		0.00		170.00	
DOCUPRO	DocuProducts Corporation		05/27/2021	Regular		0.00	390.33	9720
216324	Invoice	05/01/2021	Copier Maintenanc	•	0.00	0.00	390.33	3730
FULAD								
EJHAR 281300521	E. J. Harrison Rolloffs, Inc.	05 /42 /2024	05/27/2021	Regular		0.00	310.80	9731
994260521	Invoice Invoice	05/13/2021 05/13/2021	Office Trash		0.00		89.90	
<u> </u>	invoice	03/13/2021	3 Yard Dumpster		0.00		220.90	
EJHAR	E. J. Harrison Rolloffs, Inc.		06/11/2021	Regular		0.00	114.39	9747
<u>974660521</u>	Invoice	05/19/2021	Roll Off Container		0.00		114.39	
EVANS	Evans Excavating		06/11/2021	Pogular		0.00	7 700 00	0740
2461	Invoice	06/03/2021	Well 8 Site Clean U	Regular n	0.00	0.00	7,780.00 7,780.00	9/48
			o one cicali o	F	0.00		7,780.00	
FAMCON	Famcon Pipe and Supply, Ir		06/11/2021	Regular		0.00	1,281.64	9749
\$100053108.001	Invoice	05/01/2021	Inventory for Truck	s	0.00		1,281.64	

Date Range: 05/16/2021 - 06/15/2021

Check Report						Dat	e Range: 05/16/202	21 - 06/15/2
Vendor Number	Vendor Name		Payment Date	Payment Type	Discount Am	ount	Payment Amount	Number
Payable #	Payable Type	Post Date	Payable Description	on	Discount Amount	Paya	ble Amount	
FGLENV	FGL Environmental		05/27/2021	Regular		0.00	514.00	9732
102585A	Invoice	05/21/2021	Samples		0.00		85.00	
104882A	Invoice	05/01/2021	Samples		0.00		59.00	
104884A	Invoice	05/01/2021	Samples		0.00		59.00	
104888A	Invoice	05/01/2021	Samples		0.00		108.00	
105565A	Invoice	05/19/2021	Samples		0.00		85.00	
105883A	Invoice	05/19/2021	Samples		0.00		33.00	
105886A	Invoice	05/19/2021	Samples		0.00		85.00	
FGLENV	FGL Environmental		06/11/2021	Regular		0.00	978.00	9750
101347A	Invoice	05/28/2021	Samples		0.00		207.00	
105881A	Invoice	06/03/2021	Samples		0.00		601.00	
106237A	Invoice	05/25/2021	Samples		0.00		85.00	
106938A	Invoice	05/28/2021	Samples		0.00		85.00	
GUARDIAN	Guardian		05/27/2021	Regular		0.00	483.68	9725
INV0001734	Invoice	05/14/2021	Dental		0.00		241.86	
INV0001746	Invoice	05/28/2021	Dental		0.00		241.82	
GUARDIAN	Guardian		05/27/2021	Regular		0.00	8.00	9733
7690460521	Invoice	05/13/2021	Admin, Fee		0.00		8.00	
HPWP&C	Hathaway, Perrett, Webst	er. Powers	05/27/2021	Regular		0.00	7,105.00	9734
112589	Invoice	05/01/2021	Attorney Fees		0.00	0.00	7,105.00	J/ J+
		,,			0.00		7,103.00	
HPWP&C	Hathaway, Perrett, Webst	er, Powers	06/11/2021	Regular		0.00	13,319.15	9751
112820	Invoice	05/31/2021	Attorney Fees		0.00		13,319.15	
HLTHNE	Health Net Life Insurance	Company	06/11/2021	Regular		0.00	53.25	9752
61790621	Invoice	06/03/2021	Life Insurance		0.00	0.00	53.25	3732
		, ,			0.00		33.23	
HCS	Herum/Crabtree/Suntag		06/11/2021	Regular		0.00	1,014.75	9753
99865	Invoice	05/25/2021	SBCK vs VTA		0.00		1,014.75	
JCI	JCI Jones Chemical, Inc.		05/27/2021	Regular		0.00	2,187.00	9735
854753	Invoice	05/20/2021	Chlorine	Ü	0.00		2,937.00	3.00
854787	Credit Memo	05/20/2021	Container Return		0.00		-750.00	
LEVI	Levi Maxwell		06/11/2021	Pogular		0.00	200.00	0754
512750698235	Invoice	06/10/2021	Work Pants	Regular	0.00	0.00	200.00	9754
312730030233	mvoice	00/10/2021	WOIK Failts		0.00		200.00	
MAR	MAR Lawn & Landscape, I	nc.	06/11/2021	Regular		0.00	190.00	9755
11868	Invoice	06/01/2021	Landscaping Maint	enance	0.00		190.00	
MOHARD	Meiners Oaks Hardware		06/11/2021	Regular		0.00	1,176.78	9756
965723	Invoice	05/01/2021	Chain Oil/Motor Oi	-	0.00		19.05	
965764	Invoice	05/01/2021	Towels for Trucks		0.00		16.08	
965958	Invoice	05/01/2021	Shovel/Trash Can/E	Batteries	0.00		59.38	
966071	Invoice	05/01/2021	Black Pipe		0.00		47.07	
966074	Invoice	05/01/2021	Valveball		0.00		21.45	
966891	Invoice	05/05/2021	Clamp/Power Block	Cord/Batteries	0.00		34.13	
966949	Invoice	05/05/2021		ews/RustStop Spray,etc	0.00		135.18	
967141	Invoice	05/07/2021	Master Locks		0.00		761.87	
967767	Invoice	05/13/2021	Hooks for Fire Extin	guisher/Bolts & Screw	0.00		6.53	
967908	Invoice	05/14/2021	Parts for Repairing	Hose Bibs	0.00		60.44	
968625	Invoice	05/20/2021	Batteries		0.00		15.60	
MITEC	MiTec Solutions LLC		05/27/2021	Regular		0.00	50.00	9736
70355	Invoice	05/15/2021	Splashtop/Anti-Viru	ıs	0.00		50.00	
MITEC	MiTec Solutions LLC		06/11/2021	Regular		0.00	688.13	9757
1059735	Invoice	06/02/2021	Monthly Maintenar	nce	0.00		166.25	
1059791	Invoice	06/09/2021	Emergency Visit for	Down Internet	0.00		200.00	
70763	Invoice	06/01/2021	Exchange/Web Hos	ting	0.00		223.88	

Date Range: 05/16/2021 - 06/15/2021

Check Report						Da	te Range: 05/16/202	21 - 06/15/2021
Vendor Number Payable # 70815	Vendor Name Payable Type Invoice	Post Date 06/01/2021	Payment Date Payable Description Off Site Back Up	• • • • • • • • • • • • • • • • • • • •	Discount Am Discount Amount 0.00		Payment Amount able Amount 98.00	Number
NCK&K 4189	Nelson Comis Kettle & Kin Invoice	ney, LLP 06/04/2021	06/11/2021 Attorney Fees	Regular	0.00	0.00	1,964.00 1,964.00	9758
OILELE 2031314	Oilfield Electric Company, Invoice	Inc. 05/12/2021	05/27/2021 Electrician Observa	Regular ation of Generators	0.00	0.00	451.00 451.00	9737
OBC <u>16077</u>	Ojai Business Center, Inc. Invoice	05/31/2021	06/11/2021 Wide Format Copic	Regular es	0.00	0.00	4.00 4.00	9759
PATHIAN INV0001736 INV0001748	Pathian Administrators Invoice Invoice	05/14/2021 05/28/2021	05/27/2021 HSBS HSBS	Regular	0.00 0.00	0.00	111.84 55.93 55.91	9726
PERS <u>INV0001732</u>	Public Employees' Retirem Invoice	nent System 05/14/2021	05/31/2021 457 Withholdings	Bank Draft	0.00	0.00	150.00 150.00	DFT0001269
PERS <u>INV0001735</u>	Public Employees' Retirem Invoice	ent System 05/14/2021	05/31/2021 PERS	Bank Draft	0.00	0.00	2,679.28 2,679.28	DFT0001271
PERS <u>INV0001744</u>	Public Employees' Retirem Invoice	ent System 05/28/2021	05/31/2021 457 Withholdings	Bank Draft	0.00	0.00	250.00 250.00	DFT0001280
PERS <u>INV0001747</u>	Public Employees' Retirem Invoice	ent System 05/28/2021	05/31/2021 PERS	Bank Draft	0.00	0.00	2,716.87 2,716.87	DFT0001282
PERS 10000001644346	Public Employees' Retirem Invoice	ent System 06/01/2021	06/10/2021 Unfunded Accrued	Bank Draft Liability	0.00	0.00	2,000.13 2,000.13	DFT0001290
PERS 10000001644347	Public Employees' Retirem Invoice	ent System 06/01/2021	06/10/2021 Unfunded Accrued	Bank Draft Liability	0.00	0.00	114.45 114.45	DFT0001291
QUINNRNTL WON10015683	Quinn Rental Services Invoice	05/21/2021	06/11/2021 Generator Mainter	Regular nance	0.00	0.00	455.00 455.00	9760
<b>SAM</b> HIL 3797	Sam Hill & Sons, Inc. Invoice	06/03/2021	06/11/2021 1136 S. Rice Rd. Le	Regular ak	0.00	0.00	9,430.45 9,430.45	9761
OFFELE0521 TNKFRM0521 WELL1-0521 WELL2-0521 WELL4&70521 WELL4&70521 Z-20521 Z-2FIR0521 Z-3FIR0521 Z-3FIR0521 SCGAS	Southern California Edison Invoice Southern California Gas Co	05/25/2021 05/25/2021 05/25/2021 05/25/2021 05/25/2021 05/25/2021 05/25/2021 05/25/2021 05/25/2021 05/25/2021	O5/27/2021 Office Electricity Tank Farm Well 1 Well 2 Wells 4&7 Well 8 Zone 2 Zone 2 Fire Zone 2 Power Zone 3 Fire  06/11/2021	Regular	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00	5,850.14 160.20 26.37 768.26 678.40 3,615.89 120.75 110.57 85.78 268.88 15.04	
0458	Invoice	05/28/2021	Office Heat	Regular	0.00	0.00	4.39	9762
UAOFSC 520210441 dsb20202700	Underground Service Alert Invoice Invoice	of So.Ca. 06/01/2021 06/01/2021	06/11/2021 Digalerts Digalerts	Regular	0.00 0.00	0.00	73.59 61.15 12.44	9763

#### **Check Report**

Date Range: 05/16/2021 - 06/15/2021

Vendor Number	Vendor Name		Payment Date	Payment Type	Discount Amo	unt Payment Amount	Number
Payable #	Payable Type	Post Date	Payable Description	n	Discount Amount	Payable Amount	
USBANK	US Bank Corporate Pm	t. System	06/11/2021	Regular	C	0.00 1,121.50	9764
AAS0513	Invoice	05/13/2021	Mailing		0.00	6.95	
AMAZ0513	Invoice	05/13/2021	Mesh Holder		0.00	26.80	
AMAZ0517	Invoice	05/17/2021	Clipboards/Anchors	/Hooks	0.00	61.52	
LOGMEIN0517	Invoice	05/17/2021	Remote Meeting Access		0.00	394.00	
LOWES0423	Invoice	05/01/2021	Brooms		0.00	186.86	
<u>OVNEWS0521</u>	Invoice	05/21/2021	New Position Ad		0.00	90.00	
PRIME0521	Invoice	05/21/2021	Membership		0.00	13.93	
RUGGED0426	Invoice	05/01/2021	Straps for Handheld	ls	0.00	90.43	
SCTP0504	Invoice	05/04/2021	Flat to Round		0.00	48.49	
SCTP0512	Invoice	05/12/2021	Wheel Chock/Low T	ow Coupler	0.00	202.52	
VERIZON	Verizon Wireless		06/11/2021	Regular	0	0.00 346.23	9765
9880698361	Invoice	05/26/2021	Cell Phones		0.00	346.23	
WRIGHT EXP	WEX Bank		05/27/2021	Regular	0	0.00 1,401.12	9739
71790285	Invoice	05/15/2021	Fuel		0.00	1,401.12	

#### **Bank Code AP Bank Summary**

	Payable	Payment		
Payment Type	Count	Count	Discount	Payment
Regular Checks	90	40	0.00	85,889.48
Manual Checks	0	0	0.00	0.00
Voided Checks	0	0	0.00	0.00
Bank Drafts	9	9	0.00	14,687.48
EFT's	0	0	0.00	0.00
	99	49	0.00	100,576.96



#### Report of Income as of 5/31/2021

Income	Month of	Year To	Budget	Appropriation
	Мау	Date	Approp	Balance
Interest	0.23	16,450.54		16,450.54
Taxes	1,283.10	177,952.76		177,952.76
Pumping Charges	197.53	3,772.83		3,772.83
Fire Protection	58.72	1,616.73		1,616.73
Meter & Inst. Fees				
Water Sales	50,463.52	681,729.23	655,040.00	(26,689.23)
<sup>1</sup> Casitas Water/Standby	850.11	67,523.72		67,523.72
MWAC Charges	50,789.57	613,053.75	770,915.00	157,861.25
MCC Chg.	5,771.76	70,348.66	113,329.00	42,980.34
<sup>2</sup> Misc. Income	1,199.78	9,086.27		9,086.27
Late & Delinquent Chgs.		369.43		369.43
Conservation Penalty				
Capital Improvement				
Drought Surcharge	4,332.91	73,221.55		73,221.55
		<b></b>		::H=
TOTAL INCOME	114,947.23	1,715,125.47	1,539,284.00	(175,841.47)

#### Note:

Recycled meters and scrap metal

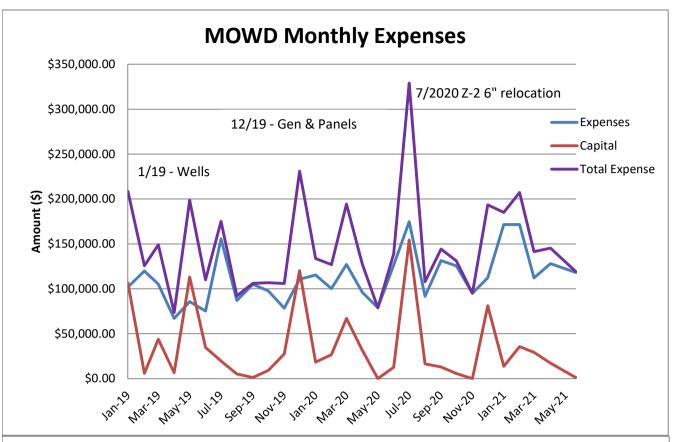
Employee payments for insurance payouts

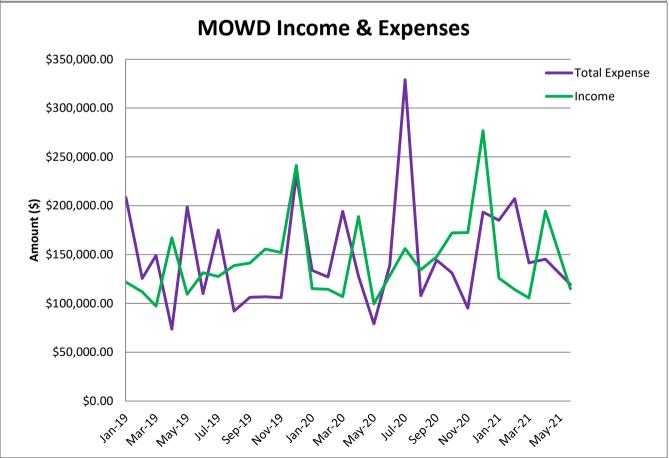
<sup>&</sup>lt;sup>1</sup> This line item is necessary because these sales are tracked in the expenditures <sup>2</sup> This line item could includes thigs such as:

#### Meiners Oaks Water District

#### Report of Expenses and Budget Appropriations, Current Bills and Appropriations To Date

Expenditures	Month of May	Year To Date	Budget Approp	Approp Bal 05/31/21	Current June	Approp FY Bal To Date
Salaries	38,893.62	464,951.99	575,000.00	110,048.01	Julie	110,048.01
Payroll Taxes	3,008.89	37,885.71	60,000.00	22,114.29	(*)	22,114.29
Retirement Contributions	5,056.38	56,862.80	51,000.00	(5,862.80)		(5,862.80)
Group Insurance	6,368.89	88,237.66	86,000.00	(2,237.66)	(#)	(2,237.66)
Company Uniforms	0,000.00	1,273.18	2,500.00	1,226.82	200.00	1,026.82
Phone Office	797.30	8,575.72	9,000.00	424.28	200.00	424.28
Janitorial Service	967.09	6,595.08	5,000.00	(1,595.08)	190.00	(1,785.08)
Refuse Disposal	425.19	3,732.44	3,400.00	(332.44)	-	(332.44)
Liability Insurance	-	40,100.79	40,000.00	(100.79)		(100.79)
Workers Compensation	1 2	15,058.95	18,000.00	2,941.05		2,941.05
Wells	1,011.09	6,156.81	10,000.00	3,843.19		3,843.19
Truck Maintenance	222.45	4,873.61	3,500.00	(1,373.61)	1.0	(1,373.61)
Office Equip. Maintenance	864.86	3,961.48	5,000.00	1,038.52		1,038.52
Cell Phones	346.23	3,594.26	4,500.00	905.74		905.74
System Maintenance	2,722.19	97,274.02	75,000.00	(22,274.02)		(22,274.02)
Safety Equipment	184.49	2,376.73	3,000.00	623.27	120	623.27
Laboratory Services	891.00	9,641.37	11,000.00	1,358.63	601.00	757.63
Membership and Dues	20.0	7,895.00	8,000.00	105.00	1=3	105.00
Printing and Binding	4.00	1,543.98	3,500.00	1,956.02	:0	1,956.02
Office Supplies	496.25	6,856.16	5,000.00	(1,856.16)	12/	(1,856.16)
Postage and Express	6.95	11,896.99	10,000.00	(1,896.99)	- 4	(1,896.99)
B.O.D. Fees	900.00	12,050.00	15,000.00	2,950.00		2,950.00
Engineering & Technical Services		7,824.71	50,000.00	42,175.29	(4.1	42,175.29
Computer Services	539.38	22,082.26	17,000.00	(5,082.26)	688.13	(5,770.39)
Other Prof. & Regulatory Fees	76.89	32,639.50	40,000.00	7,360.50	73.59	7,286.91
Public and Legal Notices	90.00	1,875.79	2,000.00	124.21		124.21
Attorney Fees	23,219.15	101,652.07	75,000.00	(26,652.07)	1,964.00	(28,616.07)
GSA Fees	-	31,299.79	50,000.00	18,700.21		18,700.21
VR/SBC/City of VTA Law Suit	1,014.75	37,409.22	75,000.00	37,590.78	191	37,590.78
State Water	*		20,000.00	20,000.00		20,000.00
Audit Fees	1	6,200.00	25,000.00	18,800.00	•	18,800.00
Small Tools	59.38	1,895.92	3,000.00	1,104.08		1,104.08
Election Supplies		2,517.03	2,500.00	(17.03)		(17.03)
Water Purchase	18,368.35	189,652.19	75,000.00	(114,652.19)	- 4	(114,652.19)
CMWD Standby Charges	2,077.03	22,374.60	20,000.00	(2,374.60)	94	(2,374.60)
Treatment Plant	2,187.00	9,807.17	20,000.00	10,192.83	- 4	10,192.83
Fuel	1,401.12	8,955.63	13,000.00	4,044.37		4,044.37
Travel Exp./Seminars	75.00	1,079.06	2,000.00	920.94	-	920.94
Utilities	164.59	2,544.82	3,500.00	955.18		955.18
Power and Pumping	5,689.94	54,869.63	80,000.00	25,130.37	-	25,130.37
Meters	•	5,863.07	10,000.00	4,136.93	-	4,136.93
Total Expenditures	118,129.45	1,431,937.19	1,586,400.00	154,462.81	3,716.72	150,746.09
Water Distribution System	-	<u> </u>	- 4	120	<u> </u>	
Automating Fairview Conn. Design	-		-		-	
Well 8 Nitrate Removal/Blending	_ ×	- 4	5,000.00	5,000.00	7,780.00	(2,780.00)
4 Valve Replacements/Deadends	-		-	:=:	-	(= 0=0 0=)
Relocate 6" Main for Z-2	-	155,050.00	150,000.00	(5,050.00)		(5,050.00)
El Sol to Lomita Tie-In Engineering	4 040 05	10.110.75	5,000.00	5,000.00	4 750 00	5,000.00
Repairs to Meiners Rd. 80K Gallon Tank	1,219.05	18,146.75	50,000.00	31,853.25	4,750.00	27,103.25
Structures and Improvements			-	-	•	-
T.P. Final Eng. 100% Design	*	-	50,000.00	50,000.00		50,000.00
Treatment Plant Set-Aside Fund		-			•	1.
Vehicles	-	- 00 004 00		0.700.70	=====	0.700.70
1 Ton Service Truck		80,201.22	83,000.00	2,798.78	-	2,798.78
Furniture and Fixtures	-		0.500.00	0.500.00	-	0.500.00
General Managers Desk			2,500.00	2,500.00		2,500.00
Office Machines	-		40,000,00	0.440.00	-	0.442.20
New Meter Reading Handhelds/Software	-	13,856.70	16,000.00	2,143.30	•	2,143.30
Field Equipment	-	40.50	2 500 00	0.400.50	-	0.400.50
Leak Detector		19.50	2,500.00	2,480.50	-	2,480.50
Vibraplate	•	•	-		-	027
Welder for New Truck		*				
Air Compressor for New Truck		•				
Crane for New Truck			100 000 00		0.105.15	
Appropriations for Contingencies	4 040 05	93,813.30	100,000.00	6,186.70	9,430.45	(3,243.75)
	1,219.05	361,087.47	464,000.00	102,912.53	21,960.45	80,952.08
Total CIP Spending GRAND TOTAL	119,348.50	1,793,024.66	2,050,400.00	257,375.34		<b>231,698.17</b> age 18 of 102







# Resolution 06152021 A Resolution of the Board of Directors of the <u>Meiners Oaks Water District</u>

#### Honoring Larry Harrold for 10 years of service as a Board Director

WHEREAS, Larry Harrold has been a faithful Director on the Board of the District since 2011, and

WHEREAS, Larry has committed himself and his efforts in an exemplary fashion;

NOW, THEREFORE BE IT RESOLVED, that Larry Harrold is hereby commended and thanked for his dedication and service to the Meiners Oaks Water District and its constituents.

Passed, Approved and Adopted this 15 <sup>th</sup> d	ay of June 2021.
ATTEST:	
Board Secretary	Board President



#### **Meiners Rd Antenna Tower Foundation**

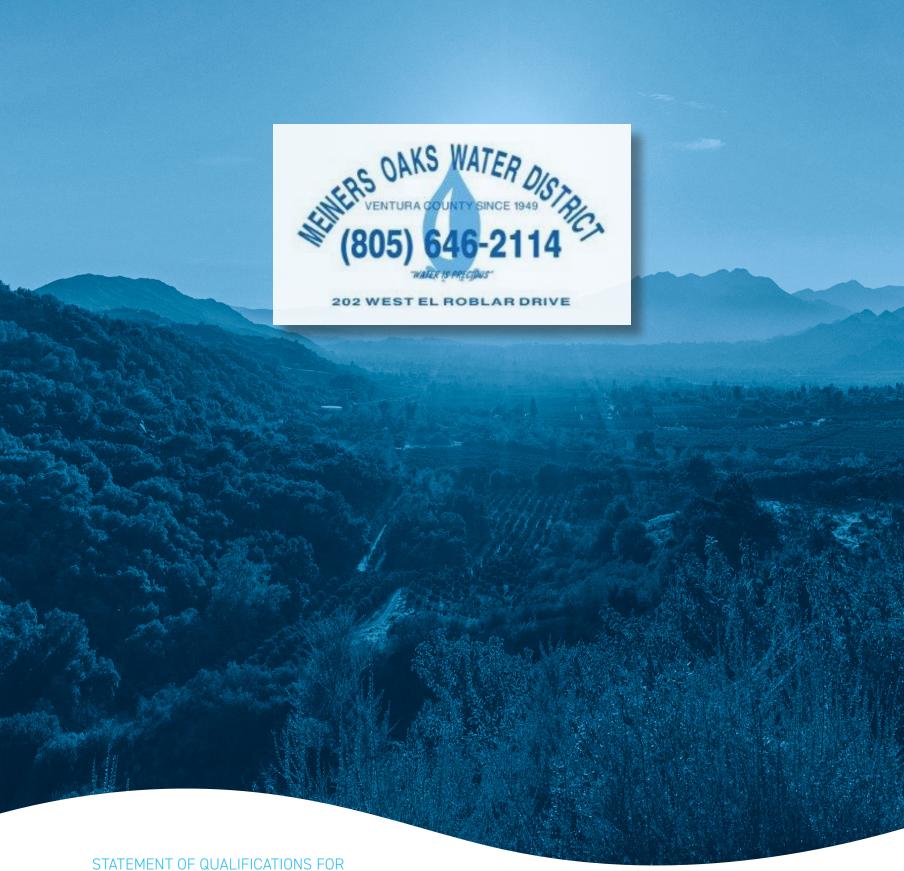
Meiners Oaks Water District has received three quotes for the antenna tower foundation and installation of 1" conduit located at the Meiners Rd Tank site. The 1" conduit will come up in the center of the antenna tower foundation and connect to a pull box installed by Oilfields Electric.

#### **Quotes:**

Evans Excavating: \$6,545.00

Toro Enterprises: \$9,251.00

Sam Hill and Sons: \$10,000.00



STATEMENT OF QUALIFICATIONS FOR

Preliminary Feasibility Study for Nitrate Removal from MOWD Well No. 8

Submittal Due Date: May 3, 2021 Summer Ward | Board Secretary Meiners Oaks Water District



Summer Ward | Board Secretary Meiner Oaks Water District

Subject: Statement of Qualifications for Preliminary Feasibility Study for MOWD Well #8 Nitrate Removal

Dear Ms. Ward.

We are pleased to provide this Statement of Qualifications to Meiners Oaks Water District (District). With an office in Ventura County and a focus on municipal clients, MKN is an ideal partner for the District. Our firm is focused on delivering quality water, wastewater and water reuse projects on time and on budget. Our attached statement of qualifications is focused on the following disciplines, as defined in your RFQ: wellhead treatment, design feasibility studies, public works projects, constructibility.

*Why MKN? Approximately 90 percent o*f our work is from existing clients. These clients select MKN for the following reasons:

- Water Quality Experts. Chris Martin our Principal-in-Charge has over 30 years of experience in advanced water treatment process. Chris has completed dozens of feasibility studies and has implemented over 30 projects including reverse osmosis, ion exchange and specialty adsorbents.
- 2. MKN is local and committed to Ventura County. Our proposed local Project Manager, Becca Bugielski, PE is located in our Ventura office. Our local team is supported by the full resources of MKN's additional five offices all located within Southern California. MKN has been providing providing our providing providi
  - offices, all located within Southern California. MKN has been providing professional services in Ventura County since 2013, working with over ten (10) different agencies and delivering dozens of projects.
- 3. Best Value. MKN's full staff consists of almost 40 professional engineers, planners, construction management staff and support staff. Many of these staff members bring decades of technical experience working at Fortune 500 global engineering firms. MKN provides a unique value, providing highly qualified engineers and a rate that is typically 10 to 20 percent less than our competitors.
- **4.** Experts Focused on Water. MKN is focused on water, wastewater, and recycled water projects for municipal clients. As such, we continuously invest in education and training in the water industry; our team members are active in technical organizations and stay apprised of industry trends, new technologies, and best practices. For the District, this means MKN can provide a wide array of high-quality expertise and innovation on projects.

We invite you to contact our past client references to learn more about our engineering performance and ability to remain on or under budget on all our projects. Our team would be very excited to serve as your experts through this treatment journey.

Thank you for your time and consideration.

Sincerely,

Chris Martin, PE Principal-in-Charge Becca Bugielski Local Project Manager

Becca K Bugielski





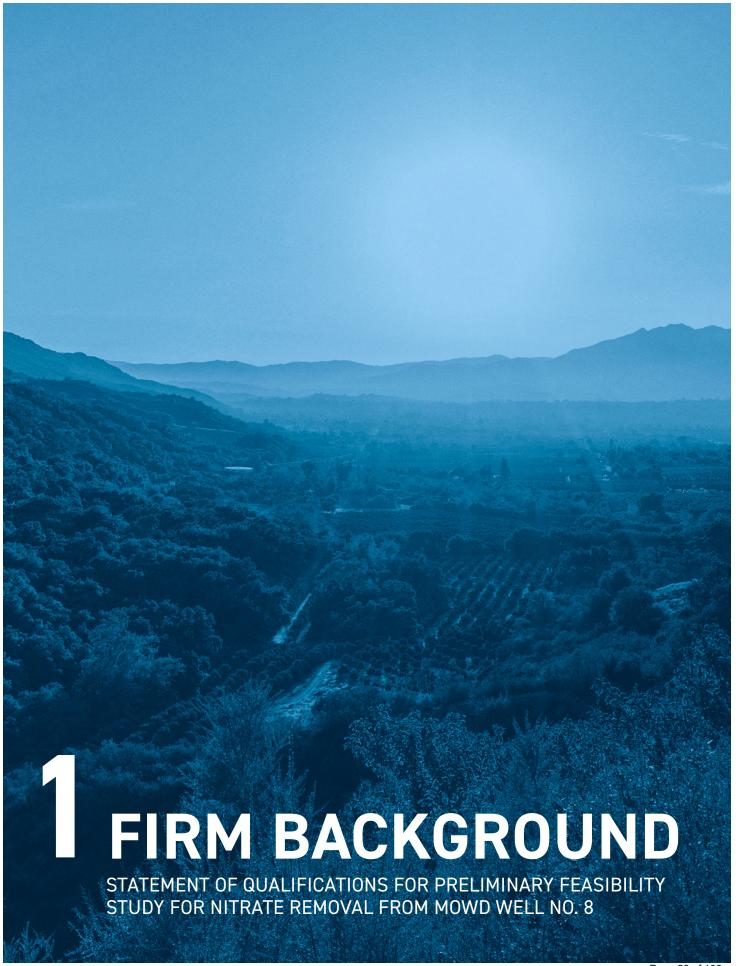


Chris Martin, PE Project Manager cmartin@mknassociates.us 661.332.1601

# **TABLE OF CONTENTS**

- 1. FIRM BACKGROUND
- 2. STAFF RESUMES
- 3. FIRM EXPERIENCE
- 4. PROJECT APPROACH





#### SECTION 1

# FIRM BACKGROUND

#### **MKN's Client Centric Origins**

MKN is a water, wastewater and recycled water engineering firm located and focused exclusively in Southern California. Our firm was formed and has grown to over 40 professional engineers, planners, construction managers/inspectors and support staff because of the need from agencies similar to Meiners Oaks Water District (District). Since 2012, MKN has focused on meeting a growing need by public agencies for responsive, technically capable consultants who are committed to a long-term relationship based on excellence.



MKN is dedicated to serving clients with all of their water related projects. We are proud to be leaders in the development of industry standards and best practices. The name MKN is synonymous with innovation, communication, professionalism, and client satisfaction.

MKN's strength in infrastructure, conveyance and treatment design is an ideal match with the District's nitrate removal project.



Our Ventura office is here to provide local solutions to your District's water needs.

# MKN is Committed to Meiners Oaks Water District.

Our principals have decades of experience in management and leadership roles for some of the highest ranked engineering firms in the world, and we are excited to bring our expertise to the District. MKN practice groups include Treatment, Infrastructure, Program Management, Planning and Hydraulic Modeling, and Construction Management.



40+ Water Treatment Projects



35+ Well Projects

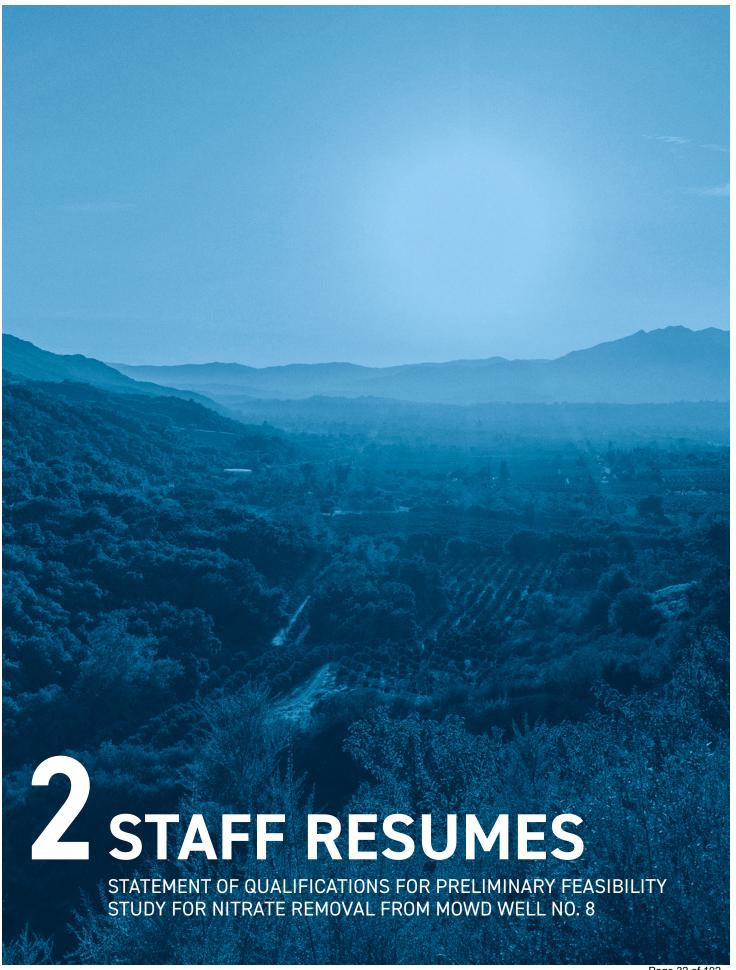


50+ Pump/Lift Stations



200+ Miles of Pipeline





#### **SECTION 2**

# **STAFF RESUMES**



To better understand how our Key Personnel fit into our team, we have included our organizational chart in this section.

**Meiner Oaks Water District** 

#### **PROJECT MANAGEMENT**

PRINCIPAL-IN-CHARGE

Chris Martin, PE

**LOCAL PROJECT MANAGER** 

Becca Bugielski, PE (WI)

QA/QC

Josh Nord, PE

#### **TECHNICAL LEADS**

#### **TECHNICAL ADVISOR**

Jon Hanlon, PE

**DESIGN LEADS** 

Chris Martin, PE

Jason Wilson, PE

CONSTRUCTABILITY

Peter Brennan, PE, CPM



#### Chris Martin, PE - Principal-in-Charge, Design Lead

# EDUCATION University of Washington Seattle, Washington BS Chemical Engineering LICENSES & REGISTRATIONS California Professional Engineer Chemical - No. CH4597

Mr. Martin is a Principal with over 30 years of experience in advanced water treatment processes, such as reverse osmosis, ion exchange, and specialty adsorbents. He is an expert in water quality issues both in the municipal and industrial industries, with over 30 treatment plant designs and dozens of evaluations and feasibility studies. Mr. Martin has presented numerous papers at water industry conferences concerning water quality and treatment topics, and is a recognized expert in these fields.



#### Becca Bugielski, PE - Local Project Manager

BS Civil Engineering
LICENSES & REGISTRATIO
Wisconsin Professional
Engineer - Civil - No. 46908-6
California Civil Engineer
Anticipated 2021
NASSCO PACP, MACP, LACP
Certification
No. U-1019-70307353

Marquette University - Wisconsin

Ms. Bugielski is an effective communicator and an experienced Project Manager for municipal projects. Ms. Bugielski brings unique public sector perspective from her time serving as Village Engineer, where she managed planning, budgeting, design and implementation of capital improvement projects. Her technical experience includes alternatives analysis, water and sewer pipeline assessment and design, GIS, stormwater design, grading, cost estimating and permitting.



#### Josh Nord, PE - QA/QC

EDUCATION
California State University, Fresno
BS Civil Engineering
LICENSES & REGISTRATIONS
California Professional Engineer Civil - No. C61789

Josh Nord has been analyzing, designing, and providing quality control reviews related water and sewer conveyance infrastructure for over 20 years. Josh has designed water wells, treatment systems, and pipelines ranging from 6-inch to 144-inch that convey sewage, raw water, and treated water for municipalities, utilities, large-scale agricultural operations, and State Special Districts. Mr. Nord's experience includes the design of gravity sewers, gravity raw water systems, sewer lift stations, pressurized water conveyance systems (e.g., lake intake pump stations, intermediate booster stations, and associated transmission mains), and open canal conveyance systems. Mr. Nord provides quality-related input to MKN's design teams from project initiation through bid package submittal.



#### Jon Hanlon, PE - Technical Advisor

#### **EDUCATION**

California Polytechnic State University, San Luis Obispo BS Mechanical Engineering LICENSES & REGISTRATIO

California Professional Engineer -Mechanical - No. M33232 NACE Certified Coating Inspector Level 1 - No. 10431924 Mr. Hanlon is a Principal with over 20 years of experience focused in design, analysis, and management of complex multi-disciplined projects, including water and wastewater treatment facilities, pump stations, production wells, piping and valves, hydraulic analysis, master planning, and environmental permitting. Mr. Hanlon specializes in wellhead treatment facilities and regulated contaminate removal.



#### Jason Wilson, PE - Design Lead

EDUCATION
California State University, Fresno
BS Civil Engineering
LICENSES & REGISTRATIONS
California Professional
Engineer - Civil - No. C89117

Mr. Wilson is a Project Engineer with over 5 years of project management and design experience in water resources infrastructure specifically pumping stations, transmission pipelines, distribution system pipelines, surge analysis, and water treatment systems. Mr. Wilson's project experience includes, hydraulic analysis, pumping systems selection, surge modeling and analysis, water system modeling, pipeline materials analysis and selection, and development of construction documents.



#### Peter Brennan, PE, CCM - Constructability

#### EDUCATION Lovola Marymo

Loyola Marymount University MS Civil and Environmental Engineering Santa Clara University BS Civil Engineering

California Professional Engineer - Civil - No. C53110

Mr. Brennan brings over 30 years of experience providing construction management and project management in the water resources industry. He worked for over 22 years with the Los Angeles County Sanitation Districts where he administered construction contracts ranging from \$1M to \$190M.



**CHRIS** MARTIN, PE PRINCIPAL-IN-CHARGE & DESIGN LEAD

University of Washington Seattle

BS Chemical Engineering

California Professional Engineer - Chemical - No. CH4597

American Water Works Association

American Membrane Technology Association

Chris Martin has 35 years of experience in advanced water treatment processes, such as reverse osmosis, ion exchange, and specialty adsorbents. He is an expert in water quality issues both in the municipal and industrial industries, with over 30 treatment plant designs and dozens of evaluations and feasibility studies. Mr. Martin has presented numerous papers at water industry conferences concerning water quality and treatment topics, and is a recognized expert in these fields.

## Monte Vista Water District Well 33

Project engineer for nitrate removal project. Facilities included ion exchange treatment for nitrate removal and softening, blending to allow delivery of selectable nitrate concentration to two different water systems, salt storage and brine facilities, and chemical feed systems including chlorine and ammonia feeds for chloramination.

## **McFarland Mutual Water District**

Served as project engineer for design, construction and operation of ion exchange nitrate removal systems at Wells 2 and 4.

## California Institution for Men

Served as project engineer for design, construction and operation of ion exchange nitrate removal systems at the Chino Prison. Included ion exchange softening as well.

## **Jurupa Community Services District**

Served as project engineer for design, construction and operation of ion exchange nitrate removal system. This system had a treatment capacity of 16 mgd.

## **Central Union School District**

Provided engineering direction for design and implementation of an arsenic treatment system for the Central Union School District, including coordination with funding agencies and DDW.

## Santa Paula WRF Odor Control Biofilter Design | Santa Paula, CA

Project manager for design of new biological trickling filter odor control system to replace failing Aerisa ionized air system and GAC scrubber.

## H2S Abatement Pilot Study Design | North of River Sanitary District

Developed pilot study protocol for evaluation of chemical remediation of H2S corrosion in a 17-mile gravity sewer. The project included developing sampling protocols, selecting chemical addition sites, developing injection facilities, and developing operating protocols.

## Corrosion Control Evaluation | North of River Sanitary District

Evaluated methods of remediating H2S related corrosion in manholes in a 17-mile sewer. Methods included aeration, chemical (ferric, hypochlorite, ozone, peroxide), changing materials of construction, and periodic replacement. After evaluating the chemical cost, periodic replacement was selected as the least expensive alternative.

## Santa Paula Water Reclamation Facility Staff Augmentation | Santa Paula, CA

Provided oversight and review of contract operator for the Santa Paula WRF, including preparation of capital budgets, review of expenditures and preventative maintenance programs, and staff activities. Oversaw over \$5 Million in capital expenditures.

## City of Coalinga WTP THM Reduction | Coalinga, CA

Directed staff in design and preparation of construction documents for replacing temporary carbon dioxide and permanganate storage and feed systems for THM reduction at the Coalinga Water Treatment Plant.



## **Chris Martin, PE**

RELEVANT EXPERIENCE (CONT.)

## **Belmont Water Company**

Working with the Division of Drinking Water (DD), developed a pilot testing program to demonstrate the effectiveness of Point-of-Entry (POE) treatment for 1,2,3- TCP removal for a small water company. This project may lead to the first implementation of POE treatment in the area.

## Central Union School District

Provided engineering direction for design and implementation of an arsenic treatment system for the Central Union School District, including coordination with funding agencies and DDW.

## Camarillo WWTP Chemical System Improvements

Reviewed existing chemical storage and feed systems at the Camarillo WWTP to evaluate reliability, safety, and maintainability. In a workshop with Camarillo Staff, developed a plan to replace or upgrade the chemical systems on schedule complying with City budgeting limitations while optimizing safety, utility, and plant performance.

## Santa Paula Water Reclamation Facility Staff Augmentation | Santa Paula, CA

Provided oversight and review of contract operator for the Santa Paula WRF, including preparation of capital budgets, review of expenditures and preventative maintenance programs, and staff activities. Oversaw over \$5 Million in capital expenditures.

## Seawater Desalination Plant Emergency Operations Plan | Morro Bay, CA

concentrations to enable operation of the Morro Bay Water Treatment Plant RO system. The project included Project Engineer. Evaluated water quality from 5 existing wells and developed methods of treating high iron developing process and instrumentation diagrams to capture plant modifications that have been performed over the 24 years since the plant was developed, as well as designing plant retrofits and improvements to allow for emergency operation in the future.

## Los Osos Basin Management Commission

Provided process engineering and water treatment evaluation for a Groundwater Replenishment and Reuse (GRRP) project, including blending issues, log removal evaluation, and treatment requirements.

## Appomattox Ultrapure Water Generation System

Served as lead engineer for development of a 12 gpm ultrapure boiler feed water system for the Appomattox offshore platform. The project included reverse osmosis, membrane deaeration, and continuous electrodeionization to stringent water quality requirements.

## Petronas ANGSI Offshore CEOR Project

Recovery (CEOR) chemical storage and mixing systems requiring addition of over 250 tons per day of soda ash and process in an onshore environment, requiring development of methods to coordinate and control delivery of the Served as lead engineer for development of a 1060 m3/d (6.7 MGD) membrane filtration, reverse osmosis, and vacuum tower deaeration system to be installed offshore in the South China Sea. The project included Chemical Enhanced Oil other chemicals in an offshore environment. After review of the logistics, Petronas repeated the project development CEOR injection water through a 170 km pipeline to the offshore field.

## Water Standard CEOR Demonstration Pilot

Project manager for in-house piloting demonstrating the ability to meet stringent injection water quality targets using seawater as a source. The project required developing innovative process combinations as well as proprietary control schemes to assure compliance with water quality targets.

## Waterflooding Study Offshore Angola

Project manager for study of facilities requirements for 600,000 bpd (25 MGD) offshore waterflood. Processes studied included membrane filtration, nanofiltration, reverse osmosis, and deaeration technologies as well as subsea pumping and treatment. The objective of the study was to determine weight and footprint impacts of various processes to enable design of the floating production and storage vessel.



planning,

## **BUGIELSKI, PE** LOCAL PROJECT MANAGER BECCA

Marquette University, Wisconsin BS Civil Engineering

Engineer - Civil - 46908-6 Wisconsin Professional

California Civil Engineer Anticipated 2021

NASSCO PACP, MACP, LACP Certification

No. U-1019-70307353

American Public Works Association (APWA) (Ventura County Chapter)

APWA Ventura County Chapter Membership Chair -present

APWA Wisconsin Chapter Young Professionals Chair 2017-2019

APWA Emerging Leaders Academy 2018-2019

term planning cost estimating, and permitting.

Becca Bugielski is an effective communicator and an experienced Project Manager for municipal projects. Ms. Bugielski brings unique public sector perspective from her time serving as Village Engineer, where she managed

budgeting, design and construction of capital improvement

projects. Her technical experience includes alternatives analysis, water and

sewer pipeline design, GIS, stormwater design, grading, long and short-

## Camrosa Water District GAC Treatment Facility | Camarillo, CA

pre-purchasing of vessels, pre-qualification of contractors, bidding and construction of a 3-vessel train granulated activated carbon (GAC) treatment facility to manage Program Manager. Facilitating project schedule, coordination with design engineer,

## Ojai Wellfield Projects | Casitas Municipal Water District, CA

Project managed the design of Mutual Well #7 and San Antonio Well #4. Coordinates 4 failed pumps in a span of 6 months. Continue efforts to assist the District with wellfield efficiency. This project ensures a safe yield from the ground water basin ongoing pump review, recommendations and design as an aging wellfield has had and reliable water for the District during drought years.

## Ojai Optimization Study | Casitas Municipal Water District, CA

and fire flow throughout the system and recommended capital improvement projects to the District to meet requirements and utilize existing infrastructure in Reviewed and evaluated the Ojai Water System for Casitas MWD. Analyzed capacity order to maximize funds.

## Camarillo Sanitary District Compliance SPCC, HMBP, & CalARP | Camarillo, CA

Project Manager. The Camarillo Sanitary District contacted MKN to assist in preparing team put together a new Spill Prevention Control and Countermeasure Plan. Evaluated CWTP Hazardous Material Business Plan for general compliance. Audited the current necessary documentation to comply with the requirements of the 40 CRF Part 112. Our CalARP program for any regulatory updates and made essential changes are required.

## Chemical Systems Improvements | Camarillo Sanitary District, CA

The project consisted of a comprehensive overview of all chemical systems at the City's wastewater treatment plant. Provided ranking criteria for prioritization and construction documents for most critical processes.

## Thousand Oaks Climate Action Plan | Thousand Oaks, CA

Effects Vulnerability Assessment and Mitigation Plan. Lead team which conducted Project Manager. Under Order No. R4-2019-137 by the Los Angeles Regional Water Quality Control Board, the City of Thousand Oaks is obligated to develop a Climate Change vulnerability assessment and analysis and developed the Climate Change Plan.

## Water Recycling Facility Management | City of Santa Paula, CA

the project manager, solicited bids and responds to contractors' requests for information Manages multiple critical projects from planning through construction for facility projects at the Santa Paula Water Recycling Facility (WRF). In addition to project management, as to ensure only responsive and responsible contractors are considered.



## Becca Bugielski, PE

RELEVANT EXPERIENCE (CONT.)

# Advanced Water Treatment Facility Preliminary Engineering | City of Santa Paula, CA

Managed the project team for preliminary design of an advanced treatment system to reduce chlorides in the effluent of the City's Water Recycling Facility. Coordinated with subconsultant efforts and effectively presented findings to the City for the most cost effective and beneficial project alternative. This project ensured compliance with the regional water quality control board and prevented future violations from the City's discharge permit.

## Signal Tank and BPS Preliminary Design | Casitas Municipal Water District, CA

Project Manager. Lead team in preliminary design effort for Signal Tank and Booster Pump Station Replacement including the siting study to connect the signal zone to the main zone to better serve the mountain view area. Completed siting study, preliminary cost opinion and basis of design memorandum.

# Heidelberger Tank and BPS Slope Stabilization | Casitas Municipal Water District, CA

Project Manager. Lead team in efforts to provide slope stabilization solutions to the District for their Heidelberger Tank and Heidelberger Booster Pump Station sites. Conducted site visits, managed geotechnical teams' analysis and provided District with solutions. Designed plans and specifications for slope stabilization solutions at the Heidelberger Tank site.

## West Ojai Pipelines | Casitas Municipal Water District, CA

Project includes preparation of preliminary and final design for approximately 5,600 linear feet of waterline replacement from small-diameter, aged, cast iron pipeline to 8-inch diameter PVC pipeline. The project will improve reliability and increase available fire flow. Improvements include abandonment of a section of pipeline Existing fire hydrants and water services will be reconnected, and new fire hydrants will be installed. The design considered tight residential streets, some with congested utilities; traffic and construction considerations working along-side two schools; and mitigation measures associated with potential impacts to existing oak trees. MKN prepared construction documents and opinion of cost for public bidding and is providing office engineering services in an easement and relocation to public right-of-way, necessitating relocation of several residential water services. during construction.

## Camarillo Climate Action Plan | Thousand Oaks, CA

Project Manager. Under order by the Los Angeles Regional Water Quality Control Board, the City of Camarillo is obligated to develop a Climate Change Effects Vulnerability Assessment and Mitigation Plan. Lead team which conducted vulnerability assessment and analysis and developed the Climate Change Plan.

## Emergency Interconnects, City of Thousand Oaks | Thousand Oaks, CA

Project Manager for preliminary and final design for two emergency potable water interconnects between the City of Thousand Oaks and California American Water. The interconnects include control valves, pressure relief valve, pump connections, metering, below grade vaults and associated appurtenances. As part of project, evaluated multiple locations and alignments, coordinated with both agencies to obtain design requirements, and coordinated with surveying and pot-holing subconsultants.

## Pressure-Reducing Station, City of Thousand Oaks | Thousand Oaks, CA

Project Manager for preliminary and final design of two pressure reducing facilities. Major tasks include hydraulic analysis of existing conditions, utilities research, and development of a preliminary and final design for a new pressure-reducing station to offset the need for alternative capital improvement projects.

## SWP Interconnection Blending Station Site Study | City of Ventura, CA

Evaluated alternative sites for the conditioning facility needed to blend SWP water with City of Ventura water. Completed preliminary site layouts, opinions of probable cost and alternative evaluations for the City of Ventura.

## Westside/Downtown Sewer Study Update | City of Ventura, CA

calibrated the model for the study area which included 32 miles of gravity sewers between 6-inch and 24-inch in diameter and 772 pipe segments that cover two square miles. Identified collection system capacity deficiencies for Updated a 15-year-old study assessment district to correct sewer deficiencies. Updated development scenarios and each development scenario and recommend capital improvements.



## JOSH NORD, PE QA/QC

## EDUCATION

California State University, Fresno

**BS Civil Engineering** 

## LICENSES &

California Professional Engineer - Civil - No. C61789

## PROFESSIONAL

American Public Works Association (Kern Branch) Past President

American Society of Civil Engineers

Josh Nord has been analyzing, designing, and providing quality control reviews related water and sewer conveyance infrastructure for over 20 years. Josh has designed water wells, treatment systems, and pipelines ranging from 6-inch to 144-inch that convey sewage, raw water, and treated water for municipalities, utilities, large-scale agricultural operations, and State Special Districts. Mr. Nord's experience includes the design of gravity sewers, gravity raw water systems, sewer lift stations, pressurized water conveyance systems (e.g., lake intake pump stations, intermediate booster stations, and associated transmission mains), and open canal conveyance systems. Mr. Nord provides quality-related input to MKN's design teams from project initiation through bid package submittal.

## Nitrate Remediation Study, East Niles Community Services District | Bakersfield, CA

Project Manager for preparation of a study analyzing options for addressing high nitrate in a key District well. The analysis included comparing multiple treatment technologies against blending via a 5-mile blending pipeline. The analysis looked at water quality, blend quantities, routes, right-of-way issues, and costs.

## Well 32 Nitrate Blending Analysis, City of Delano | Delano, CA

Principal-in-charge for the preparation of a nitrate blending analysis and conceptual nitrate blending system design for City Wells 22 and 32. Work included preparing a technical memorandum analyzing existing water quality, blended water quality, blend ratios, well site modifications, transmission main alignment options and crossings, blending site conceptual tie-ins, and cost opinions.

## Snyder Well Intertie, City of Tehachapi | Tehachapi, CA

Served as Project Manager. Project consisted of analyzing, designing, and providing construction phase services for the project which tied the Snyder Well into the Tehachapi Cummings County Water District (TCCWD) non-potable system. MKN staff designed the well equipment modifications, the electrical and controls modifications, the transmission pipeline (3/4-mille long 8-inch and 10-inch), and the TCCWD intertie.

## 5 Wells Arsenic Treatment Integration, City of Bakersfield Water Dept. | Bakersfield, CA

Project Manager for the design of the integration of five (5) absorptive media arsenic treatment systems for five key wells within the City's distribution system. The work included design of the foundations, piping and valving, backwash, pH adjustment peripherals, electrical and instrumentation equipment. Services included design, bidding, construction phase engineering, and construction observation.

## Well 21 1,2,3-TCP Treatment Project, East Niles Community Services District | Bakersfield, CA

Principal-in-charge for the preparation of plans, specification, and estimates for the TCP treatment implementation project. The work included designing multiple GAC treatment systems (pairs of vessels in series) to treat the water from two District wells, as well as designing the piping, valving, backwash system, TCP treatment system intertie, and appurtenances required to support the treatment system at the Well 21 site. The design can accommodate Wells 21 and 23.

## Running Ridge Improvements, Casitas Municipal Water District | Ojai, CA

Project Manager for the preparation of a baseline design report and design documents for the Running Ridge Improvements. The improvements consist of a pump station relocation/reconstruction, tank inlet revisions, a chlorination station for conversion

## Josh Nord, PE

## RELEVANT EXPERIENCE (CONT.)

from chloramines to chlorine, a 10-inch transmission main, tie-ins to multiple pressure zones, tank abandonments, and associated electrical and instrumentation.

# Well 18 Arsenic Treatment Project, East Niles Community Services District | Bakersfield, CA

adsorptive media arsenic treatment system (single vessel with expandability) to treat the well water, as well as Project Manager for the preparation of plans, specification, and estimates. The work included designing designing the piping, valving, and appurtenances required to support the treatment system.

# Well 21 Arsenic Treatment and Pump Station Phase 1 Project, East Niles Community Services District | Bakersfield, CA

series) to treat the well water using existing District vessels from a decommissioned water treatment plant, as well Project Engineer. The work included designing an adsorptive media arsenic treatment system (three vessels in as designing the piping, automated valving, and appurtenances required to support the treatment system.

# Well 21 Arsenic Treatment and Pump Station Phase 2 Project, East Niles Community Services District | Bakersfield, CA

Project Engineer. Work included design of a 2,250 gpm booster pump station (including a pump building and chemical feed appurtenances), a 428,000 gallon bolted steel tank, and ductile iron and steel piping and appurtenances to tie the treatment system from the Phase 1 Project into the reservoir and booster pump station.

# Morning Dr. Pipeline (3 Phases), East Niles Community Services District | Bakersfield, CA

Morning Drive Tank Site and Pump Station and the Freeway Tank Site (future pump station site), 2) 1/2-mile of 20-inch CML&C steel pipeline between the Morning Drive Pipeline and Auburn Street (includes a segment of Project Manager for the environmental document preparation and preparation of the plans, specifications, and estimates for the project. The design included three segments: 1) 20-inch CML&C steel pipeline between the and 3) 14-inch and 12-inch welded steel piping (CML&C and FBEL&C) as well as two pressure-reducing valves and ductile-iron pipeline inside the bridge with saddles and seismic flexibility at the point of crossing Highway 178), an altitude valve.

# Well 22 Arsenic Treatment Project, East Niles Community Services District | Bakersfield, CA

Principal-in-charge for the preparation of plans, specification, and estimates for the treatment implementation expandability) to treat the well water, as well as designing the piping, valving, backwash system, and appurtenances arsenic treatment system (single vessel with The work included designing an adsorptive media required to support the treatment system at the Kern Citrus Site.

## East Feeder, Kern County Water Agency | Bakersfield, CA

Technical design team. Preparation of preliminary design, surge analysis, and plans and specifications for 0.9-mile long 30-inch diameter CML&C steel feeder from the Kern County Water Agency's Oswell Pump Station to the Corner Tank site turnout to Cal Water and ENCSD.

# Northwest Feeder Pump Station and Pipeline Project, Kern County Water Agency | Bakersfield, CA

Project Engineer for the preparation of system hydraulics, surge analyses, pipeline design, and plans and specifications for Northwest Feeder Project. The project included approximately 4 miles of 42-inch CML&C steel pipe and appurtenances.

## Lakeside Union School District | Bakersfield, CA

Project Manager and Engineer for the preparation of a preliminary engineering report (PER) update and subsequent Improvements include an irrigation canal undercrossing, isolations valves, and tie-ins to the existing on-school Follow-on work included preparation of a revised PER to analyze water treatment options. This included design of design of a 16-inch transmission water pipeline to connect LUSD to the City of Bakersfield water system. improvements. Also included was the abandonment / modification of the on-school wells for irrigation purposes. a test well to gather aquifer information.



## JON HANLON, PE TECHNICAL ADVISOR

## **EDUCATION**

California Polytechnic State University, San Luis Obispo

BS Mechanical Engineering

## LICENSES & REGISTRATIONS

California Professional Engineer - Mechanical - No. M33232

NACE Certified Coating Inspector #10431924

## PROFESSIONAL ASSOCIATIONS

National Association of Corrosion Engineers (NACE)

American Water Works Association

American Society of Mechanical Engineers

American Public Works Association

Jon Hanlon, after over 18 years of serving as project engineer, project manager, and ultimately as an operations manager for a Fortune 500 consulting engineering firm, joined MKN and Associates, Inc. specializing in water, wastewater, and water reuse engineering for public agencies. His expertise includes management, planning, and design of water, wastewater, and recycled water facilities throughout California. As a Principal Engineer at MKN, Mr. Hanlon's experience has included design, analysis, and management of complex multi-disciplined projects, including water and wastewater treatment facilities, pump stations, production wells, piping and valves, hydraulic analysis, master planning, and environmental permitting.

## Evaluation of Nitrate Removal | Los Osos CSD, CA

Project Manager. Project provided an evaluation of nitrate removal options for the Los Osos Groundwater Basin. The evaluation presented planning-level recommendations describing treated water quality, waste production volumes and quality, capital costs, and operating and maintenance costs.

## Well #11 Treatment Project | Arroyo Grande, CA

Project Engineer. MKN provided construction observation services during construction of Well 11 for the City of Arroyo Grande. The project included installation of a submersible well pump, an iron and arsenic treatment system, and associated piping and building. Design of the project was done by others, and MKN provided the City with process engineering support following failure of the treatment system to perform as expected. The well water exhibited extremely unusual chemistry, resisting conventional methods of oxidizing iron. MKN has been working with City staff to develop alternative oxidation methods, including permanganate and ozonation, to achieve the required water quality.

## Anita Well Treatment Feasibility Study | Goleta Water District, CA

Project Engineer. As a Sub to MNS, MKN provided engineering services to evaluate the feasibility of treating water from a groundwater well that is high in iron, manganese, and disinfection byproducts. MKN evaluated several treatment options capable of meeting the water quality goals. The recommended approach was to reduce the concentration of contaminates through blending with another source, or by treatment through oxidation/filtration. Recommendations for disinfection byproduct control included chloroform removal through enhanced aeration. Provisions to allow filtration through the existing manganese dioxide filtration plant were recommended.

## Rio Mesa Well, Valley Children's Hospital | Madera, CA

Project Engineer. Valley Children's Hospital (VCH) recently acquired the property located to the southeast of the existing hospital. The property consists of a golf course and includes a potable and non•potable water supply well. VCH plans to improve the capacity of the non•potable well, improve the well to meet potable water standards, and incorporate the well into the VCH water system as an additional water supply. The Rio Mesa well will also continue to be used for landscape irrigation of the golf course.

## Wellhead Arsenic and TCP Removal Project | Bakersfield, CA

Project Engineer. The City of Bakersfield (City) operates five wells that have been taken out of service due to elevated levels of arsenic in the produced water. The location of the wells makes them key wells for the City's system when surface water supplies are limited. MKN was retained to evaluate proposed absorptive treatment systems at all five wells and assist the City with final design and construction support. The conceptual treatment system design consists of iron-oxide based

## Jon Hanlon, PE

## RELEVANT EXPERIENCE (CONT.)

adsorptive media, pre-oxidation chemical skids, pH adjustment using liquid carbon dioxide, and organic chemical removal using activated carbon.

## Nitrification Monitoring and Mitigation Plan | Nipomo, CA

Water Project ("Project"). The Project will allow NCSD to transport supplemental water from the City of Santa Maria (City) and deliver it to the Nipomo Mesa. The Project includes a chloramination booster facility at the pump station to The Plan also provides the District with standard procedures for operations and monitoring of a chloraminated water Project Engineer. Prepared Chloramination Operations/Nitrification Monitoring and Control Plan (Plan) and Water Supply Permit Amendment to address changes in operations resulting from implementation of the Supplemental boost disinfectant in the water from Santa Maria and conversion of NCSD's disinfection system to monochloramine.

## Well 22 Treatment Evaluation | Solvang, CA

Project Manager. The City retained MKN to evaluate the feasibility of treating water from existing Well 22 and future Well 23 for potable use. Iron and manganese concentrations exceeded secondary maximum drinking water contaminant levels (SMCLs) and odor was observed in the Well 22 water sample. MKN performed an evaluation of treatment alternatives to meet sulfide, iron, and manganese water quality goals. The evaluation summarized constraints, potential locations, necessary equipment, and planning-level costs for a centralized treatment facility and connection to the City distribution system.

## Sherwood Well Arsenic Treatment Plant | Paso Robles, CA

Treatment plant utilized regenerable iron-based adsorbent media. Activated carbon was utilized for chlorine and Project Engineer. Project to design and construct arsenic removal facilities at two 1.4 MGD City groundwater wells. sulfide removal and taste and odor control.

## Denner Well Sulfide Removal | Paso Robles, CA

Project Engineer. Provided process evaluation and recommendations for treatment system to reduce sulfides and salts in winery process water. The final system utilized aeration, ozone, greensand, activated carbon, reverse osmosis, and orthophosphate injection for corrosion control.

## Meadow Creek Wells Treatment Project | Pismo Beach, CA

Project Engineer. Evaluated water quality and treatment goals and recommended treatment process for supplemental groundwater sources. Water quality issues included iron/manganese, high TDS, sulfides, color, odor and turbidity.

# Mutual Well #7 Well Equipment and Site Work, Casitas Municipal Water District | Ojai, CA

Project Engineer. Design of new well facilities to produce 400 gpm and the replacement of an existing well to produce 200 gpm. The wells are part of an integral well field and supply water the Ojai Water System.

# Well Failure Analysis, Pleasant Valley County Water District | Ventura County, CA

Analysis identified mode of failure was due to well misalignment. Prepared report identifying options for replacement Project Engineer. Municipal well failure analysis included review of well performance and construction documents. which included use of a smaller vertical turbine pump or submersible pump.

# Fairview Well Rehabilitation, Calleguas Municipal Water District | Ventura County, CA

preparation of plans and specifications for redevelopment of the well and system upgrades. System upgrades consist of installation of a new pump and motor, new motor control center including variable frequency drive, programmable logic controller, provisions for backup generation, replacement of piping and associated appurtenances, and addition Project Engineer. Project to rehabilitate an inactive Aquifer Storage and Recovery (ASR) well and return it to service as a backup groundwater production well. Project includes video and biological inspection of the well, followed by of a disinfection system.



## JASON WILSON, PE DESIGN LEAD

## EDUCATION

University of Central Florida Orlando, FL

BS Civil Engineering

LICENSES & REGISTRATIONS

California Professional Engineer - Civil - No. C89117

PROFESSIONAL

American Society of Civil Engineers

Mr. Wilson is a Project Manager with design experience as a Project Engineer specializing in water supply and distribution systems specifically pumping station design, surge analysis, transmission mains, distribution systems, water treatment, and construction management. Mr. Wilson is also experienced in wastewater collection systems assessment and rehabilitation.

## Nitrate Remediation Study, East Niles Community Services District | Bakersfield, CA

Project Engineer for preparation of a study analyzing options for addressing high nitrate in a key District well. The analysis included comparing multiple treatment technologies against blending via a 5-mile blending pipeline. The analysis looked at water quality, blend quantities, routes, right-of-way issues, and costs.

## Well 32 Nitrate Blending Analysis, City of Delano | Delano, CA

Project Engineer for the preparation of a nitrate blending analysis and conceptual nitrate blending system design for City Wells 22 and 32. Work included preparing a technical memorandum analyzing existing water quality, blended water quality, blend ratios, well site modifications, transmission main alignment options and crossings, blending site conceptual tie-ins, and cost opinions.

## 5 Wells Arsenic Treatment Integration, City of Bakersfield | Bakersfield, CA

Project Engineer for the design of the integration of five (5) absorptive media arsenic treatment systems for five key wells within the City's distribution system. The work included design of the foundations, piping and valving, backwash, pH adjustment peripherals, electrical and instrumentation equipment. Services included design, bidding, construction phase engineering, and construction observation.

## Well 21 1,2,3-TCP Treatment Project, East Niles Community Services District | Bakersfield, CA

Project Engineer for the preparation of plans, specification, and engineer's estimates for the TCP treatment implementation project. The work included designing multiple GAC treatment systems (two pairs of vessels in series for Well 21 and one pair of vessels for Well 23) to treat the water from two District wells, as well as designing the piping, valving, backwash system, TCP treatment system intertie, and appurtenances required to support the treatment system for two District groundwater wells.

## Well 22 Arsenic Treatment Project, East Niles Community Services District | Bakersfield, CA

Project Manager for the preparation of plans, specification, and estimates. The work included designing an adsorptive media arsenic treatment system (single vessel with expandability) to treat the well water, as well as designing the piping, valving, and appurtenances required to support the treatment system.

## Rio Mesa Well & Pipeline, Valley Children's Hospital | Madera, CA

Project Engineer for the project that included the design of a 600 gpm well equipping and transmission pipeline project that will add a third potable water well to the hospitals water distribution system. Contributions to the project included, Hydraulic calculations and analysis, development of system and pump curves, vertical turbine pump design, coordination of subconsultants, generation of construction documents. Construction phase contributions included reviewing technical submittals, responding to RFI's, and field inspections.

## Arsenic Treatment System Integration Project, Private Food Processing Client | California

Project Engineer for the design of the integration of an absorptive media arsenic treatment system for a private manufacturing client. The work included hydraulic calculations, design of piping, valves, solids filtration systems, and review of

## Jason Wilson, PE

RELEVANT EXPERIENCE (CONT.)

procured treatment system submittals. Services included design services.

# Water Line Extension for Office, East Niles Community Services District | Bakersfield, CA

Project Engineer for the project that included the design and installation of a water line extension for the future District offices. Contributions included engineering and construction phase services. Engineering phase contributions to the project included, pipe design, alignment selection, hydraulic calculations, development of construction documents, and bid phase services. Construction phase contributions to the project included reviewing technical submittals, responding to RFI's, construction observation, and construction management.

# Rosewood Pump Station Relocation, East Niles Community Services District | Bakersfield, CA

transmission pipeline for aging infrastructure. Contributions to the project included, Hydraulic calculations and analysis, development of system and pump curves, vertical turbine pump design, water transmission pipeline design, coordination of subconsultants, generation of construction documents, and bid phase services. Construction Project Engineer for the project that included the design of a 2,500 gpm replacement booster pump station and phase contributions are expected to include reviewing technical submittals, responding to RFI's, and construction

# Well 19 Arsenic Treatment System Project, East Niles Community Services District | Bakersfield, CA

as well as designing the piping, valving, backwash system, arsenic treatment system intertie, and appurtenances Project Engineer for the preparation of plans, specification, and engineer's estimates for the arsenic treatment system. The work included designing of multiple adsorptive media treatment system to treat the water from a District well, required to support the treatment system.

# Well 20 Flushing Pipeline, East Niles Community Services District | Bakersfield, CA

services. Construction phase contributions to the project included reviewing technical submittals, responding to RFI's, construction observation, construction management, development of progress pay estimates and evaluation Assistant Engineer for the project that included the design and installation of a flushing pipeline with the ability to also operate as a transmission pipeline. Contributions included engineering and construction phase services. Engineering phase contributions to the project conducted under the supervisions of the project engineer included, pipe design and alignment selection, hydraulic calculations, development of construction documents and bid phase of contract change orders.

# Well 19 Rehabilitation Project, East Niles Community Services District | Bakersfield, CA

and rehabilitation of the well casing. Engineering phase contributions to the project conducted under the supervisions of the project engineer included, hydraulic calculations, pump bowl sizing and selection, development of construction submittals, responding to RFI's, construction observation, construction management, development of progress pay Assistant Engineer for the project that included the replacement of the well pump bowls and column tube assembly documents and bid phase services. Construction phase contributions to the project included reviewing technical estimates and evaluation of contract change orders.

## Transmission Main, Private Agricultural Client | California

Assistant Engineer for the project that included the design and installation of a large diameter PVC transmission pipeline. Contributions included engineering and construction phase services. Engineering phase contributions to contributions to the project included reviewing technical submittals, responding to RFI's, construction observation, the project conducted under the supervisions of the project engineer included, pipe design and alignment selection, Construction phase construction management, development of progress pay estimates and evaluation of contract change orders. hydraulic calculations, development of construction documents and bid phase services.

## Arsenic Treatment Project, Alpaugh Community Services District | Alpaugh, CA

the construction and operation of the arsenic treatment facility. The report was completed under the supervision of Assistant Engineer on a project to design the addition of arsenic treatment facility to the District's water system. Responsibilities included the generation of a CEQA initial study to determine the environmental impact caused by project managers and in accordance with the regulations provided under the California Environmental Quality Act.



## PETER BRENNAN, PE, CCM CONSTRUCTABILITY

## FDUCATION

Engineering

Loyola Marymount University, CA MS Civil and Environmental

Santa Clara University, CA BS Civil Engineering

## **LICENSES & REGISTRATIONS**

California Professional Engineer - Civil - C53110

## PROFESSIONAL ASSOCIATIONS

American Society of Civil Engineers

California Water Environment Association

Construction Management Association of America Mr. Brennan brings over 30 years of experience providing construction management and project management in the water resources industry. He worked for over 22 years with the Los Angeles County Sanitation Districts where he administered construction contracts ranging from \$1M to \$190M. In this position, he served as a Project Manager/Senior Resident Engineer for various projects such as wastewater treatment plants, pipelines, pump stations, and landfill construction. He also worked for the City of Los Angeles with the Los Angeles World Airports-Airports Development Group where he was responsible for multiple aspects of project/construction management for airport infrastructure renovation and expansion.

## El Estero Wastewater Treatment Plant Secondary Process Improvement Project | Santa Barbara, CA

This \$22.6M project converted the existing conventional activated sludge process to biological denitrification. These improvements resulted in increased quality secondary effluent feed to the new ultrafiltration (UF) facility. Project work included modifying the aeration basin, including new inlet and outlet gates, baffle walls, aeration diffusers, mixers, and aeration piping as well as structural modifications; replacing return-activated sludge pumps and piping; replacing two aeration process air blowers; adding new concrete flume structure to distribute mixed liquor flow to the secondary clarifiers; modifying secondary clarifier, including replacing and modifying sludge collector mechanisms; adding new mixed liquor pumps and associated piping; adding new chemical facilities (ammonium sulfate, ferric chloride, and polymer) including tanks, pumps, and injection diffusers; adding secondary effluent recycle facility including diversion box and gate; and modifying associated 480V power upgrades.

## Rehabilitation and Expansion of Lenain Water Treatment Plant | Anaheim, CA

This \$10M project expanded and rehabilitated the Lenain Water Treatment Plant for the City of Anaheim. Work included demolition, grading, retaining walls, replacement of reservoir inlet valves, installation of 1000 lineal feet Of new 36-inch CML&C steel plant effluent piping, steel tank rehab, replacement of plate settlers, replacement of lamella plates, orifice plates, rapid mixer and flocculation mixer, washwater balance tank improvements, replacement of valves, actuators and chemical piping at the chemical feed facilities, electrical and instrumentation improvements and other appurtenant work.

## El Estero Wastewater Treatment Plant Tertiary Filter Replacement | Anaheim, CA

Construction Manager. This \$8.4M project replaced the treatment plant's existing filtration system with an ultrafiltration (UF) facility. Work included demolition of an existing gravity filter, installation of driven concrete piles, construction of a new UF facility, new filter feed pumps, replacement of chemical feed pumps, modifications to the chlorine contact basin, modifications to the reclaimed water storage reservoir, new reclaimed water transfer pumps, yard piping modifications, associated electrical and instrumentation modifications, and other appurtenant work.

Owner's Agent/Owner's Engineer (OA/OE) Services for the Groundwater Reliability Improvement Program (GRIP) | Water Replenishment District of Southern California (WRD), CA

Construction Manager. WRD established the GRIP to find alternative sources of water to offset the imported water used for replenishment in the Montebello Forebay. As part of the GRIP, an advanced water treatment facility (AWTF) is being designed and constructed to treat 10,000 acre-feet per year of tertiary recycled water. The GRIP AWTF is located in a 5.2-acre lot, adjacent to the San Gabriel River in the City of Pico Rivera. Treatment processes include automatic strainer to protect downstream membrane treatments systems from large particles; microfiltration (MF) or ultrafiltration (UF)

## Peter Brennan, PE

## RELEVANT EXPERIENCE (CONT.)

excess carbon dioxide and stabilize the product water; and pH adjustment/corrosivity stabilization. The 11,700 sf treatment facility is LEED certified with approximately 40,000 sf of additional surface landscape and bioretention, to reduce turbidity and silt density index (SDI) of reverse osmosis (RO) feed water; cartridge filtration to project downstream of the RO process; RO to remove salts, minerals, metal ions, organic compounds, and microorganisms; advanced oxidation with utraviolet light (UV) treatment using hydrogen peroxide in concert with UV to reduce N-Nitroso-Dimethylamine (NDMA) concentrations and provide additional disinfection; decarbonation to release 4,000 sf of vegetated roof garden, with 79,000 sf of surface parking and pedestrian hardscape.

## New Turn-Out Structures at the San Gabriel River Coastal Basin Spreading Ground | Water Replenishment District of Southern California (WRD), CA

Construction Manager. This project constructs two new turn-out structures and associated discharge structures at the San Gabriel River Coastal Basin Spreading Grounds, which will provide needed operational flexibility for the spreading of an additional 11,000 acre-feet per year (AFY) of tertiary recycled water and 10,000 AFY of advanced treated recycled water. Additional work includes shotcrete lining of an existing approximately 6,400-linear-foot distribution channel and the installation of new 66-inch pipelines approximately 500 linear feet along with electrical and instrumentation and control systems.

# Advanced Water Purification Facility and Product Water Pump Station Project | Monterey Regional Water Pollution Control

Technical Advisor. This \$48M project involves the construction, testing, and startup of a 4-million-gallon-per-day (MGD) Advanced Water Purification Facility (AWPF) and pump station to treat various wastewater sources from water to the Seaside Groundwater Basin. The new 22,560-square-foot AWPF is being constructed on a 5.7-acre site In addition to access and security issues, ongoing coordination with plant operations personnel prevents potential impact to the ongoing operation of the existing wastewater treatment plant. Provided construction management, the Peninsula and Salinas Valley for injection of approximately 3,500 acre feet per year (AFY) of purified recycled within the confines of the Monterey Regional Treatment Plant (RTP) and adjacent to the operating Monterey Regional Waste Management District (MRWMD). Both facilities must be kept in full operation during construction. Access and security of venicular traffic, construction work, and staff must be coordinated with the existing plant operations team. construction inspection, testing, startup, and commissioning services.

## Aerated Sludge Holding Tank Replacement | Carpinteria Sanitary District, CA

process control systems, enhance treatment of solids, and dramatically improve energy efficiency through the use of ultra-efficient pumps and blowers. The solid foundation comprised of 170 stone columns beneath the new tanks Construction Manager. This \$6M project demolished two aging aerated sludge holding tanks and constructed two new concrete digesters that meet current seismic standards, use state-of-the-art aeration equipment and computerized prevent future seismic liquefaction. Additional project elements included the installation of a temporary sludge handling system and new aeration blowers; relocation of existing chemical facilities; and modifications to yard piping, electrical and instrumentation, and other appurtenant work.

## Los Angeles County Sanitation Districts | Los Angeles County, CA

document control, submittal and shop drawing review, RFIs, change management, CPM scheduling, monthly progress Construction Manager. CM's responsibilities included design consultation, constructability review, value engineering, supervision of inspection and survey staff, quality assurance, project controls, payments, claims management, dispute resolution and change order negotiation, start up and commissioning, and plan and specification review,

# Lancaster Water Reclamation Plant Stage Five Expansion, Los Angeles County Sanitation Districts | Los Angeles County, CA

Senior Resident Engineer. This \$146M waste water plant expansion project involved influent pumps, primary sedimentation tanks, aeration tanks, final sedimentation tanks, pressure filters, chlorine contact tanks, chemical stations, digesters, solids handling facilities, and associated mechanical, electrical, and instrumentation work.



## FIRM EXPERIENCE

## **Jurupa Ion Exchange Plant**

City of Chino, CA

**OWNER:** Jurupa Community Services District

KEY PERSONNEL: Chris Martin, PE;

## **CLIENT CONTACT:**

8621 Jurupa Road Riverside, CA Mr. Tom O'Neill (909) 685-7434



## **BRIEF DESCRIPTION**

The Jurupa Community Services District provides water supplies to the rapidly growing area of western Riverside, California. A significant portion of the District's water comes from wells drawing from the Chino Basin, which has been heavily impacted with nitrate and TDS from long-term agricultural operations. As nitrate concentrations have risen, the District has found it more and more difficult to meet water quality regulations by blending the high-nitrate groundwater with better quality supplies

MKN staff prepared feasibility, preliminary design, and final design of an ion exchange treatment plant to reduce the nitrate concentration in water from four wells to a level that would allow it to blend down high nitrate concentrations in other supplies. The design resulted in construction of a 4 MGD treatment plant with all facilities in place to allow capacity to be increased to 12 MGD by installing additional ion exchange vessels.

Because of the very high cost of waste disposal, Boyle developed an innovative regeneration scheme that reduces the already low waste volume of Boyle's traditional design by an additional 30 percent. This regeneration scheme reduced the cost of purchasing waste disposal capacity by almost a million dollars.

The project was constructed during the spring and summer of 2003, and began operation in 2004.

## McFarland Nitrate Removal Plant Well Number 4

McFarland, CA

**OWNER:** McFarland Mutual Water Histrict **CLIENT CONTACT:** 

McFarland Mutual Water Company 209 Kern Street McFarland, CA 93250



## **BRIEF DESCRIPTION**

Rural and agricultural communities across the country are finding high levels of nitrate in their ground water with increasing regularity. Years of seeping septic tanks and continuous agricultural operations, particularly the use of nitrogen fertilizers, can contaminate local aquifers. McFarland, California is no exception.

Ground water is the only water supply source for the 6,000 people living in this agricultural community. A quick and economical solution to the nitrate problem was imperative to the community's continued growth, health, and well-being. Boyle's previous research and knowledge of local geology, and the success of a nitrate removal plant operating at the community's number two well indicated a second ion exchange plant would cost-effectively treat water from well number four.

Ground water is pumped from the well, through the ion exchange vessels where the nitrate is exchanged for chloride, and then into the existing water system. Treatment reduces the nitrate level from over 70 mg/L to 30 mg/L, well under the federal maximum level of 45 mg/L. The process is 98 percent efficient. Nitrate levels are continuously monitored to check the quality of water leaving the plant. The entire plant is fully automated with state-of-the-art instrumentation and control systems and requires only two hours each day for operator checks.

A special legislator's grant from the California State Legislature financed the plant.

# PFAS Treatment Plant Planning and Design

Atascadero Mutual Water Company, CA

**OWNER:** Atascadero Mutual Water Company

KEY PERSONNEL: Jon Hanlon, PE; Chris Martin, PE; Ryan Gallagher, PE; Keenan Bull, PE, Rob

**DURATION/KEY MILESTONES:** February 2020

- February 2022 (Ongoing)

CLIENT CONTACT:

General Manager (805) 466-2428 John Neil, PE

**ENGINEERING FEE (CONTRACT VALUE):** 

ESTIMATED CONSTRUCTION: \$3M (projected)

## **BRIEF DESCRIPTION**

Atascadero Mutual Water Company has three groundwater wells with levels of PFAS which have exceeded both notification and response levels. The project includes fasttrack development of a blending strategy using AMWC's hydraulic model in order to bring concentrations below the include documentation to support amending the Operations Plan with California State Water Resources Control Board response level prior to delivery to customers. This Division of Drinking Water (DDW).

will include an operations center, PFAS removal vessels, and connections to existing raw water and distribution system pipelines. MKN is developing a protocol for pilot testing to evaluate different treatment alternatives including activated MKN is designing a centralized water treatment facility for reduction of PFAS below notification levels. The facility carbon and ion exchange resins.

## Alrita Booster Pump Station

City of San Luis Obispo, CA

OWNER: City of San Luis Obispo, CA

KEY PERSONNEL: Jon Hanlon, PE;

Mike Nunley, PE

**DURATION/KEY MILESTONES:** Six Months

**CLIENT CONTACT:** 

Marcus Henderson, Water Distribution Supervisor **Public Utilities** 

25 Prada Road

San Luis Obispo, CA

mhenderson@slocity.org



## **BRIEF DESCRIPTION**

priority project for the City. Furthermore, the pump station included a 2500-gal hydropneumatic tank and two service pumps. The station had been a maintenance concern for several years so the pump station replacement became a The Alrita Booster Station, originally constructed in 1958, did not provide fire protection to the Alrita Pressure Zone.

easement, the Project Team assisted the City in negotiations with the adjacent property owner to acquire additional Because the original pump station was located on a 15'  $\times$  30' easement for the new pump station.

hydropneumatic tanks were located behind the building to In order for the new pump station to blend into the neighborhood, the architectural design incorporated a splitfaced block building. The two new vertical bladder-type minimize viewshed impacts. The new bladder tanks reduced required tank maintenance and reduced noise by eliminating the need for an onsite air compressor.

gallons per minute of fire flow to the highest elevations in the Alrita Pressure Zone. The design included a recirculating In order to enhance fire protection, a new 75-hp horizontal end-suction centrifugal pump provided a minimum of 1500 pressure controlled loop to allow continuous fire pump of hydrant regardless demand. (Key staff with previous firm). availability and flow operation

## **On-Call for Casitas Municipal Water District**

Casitas Municipal Water District, CA

**OWNER:** Casitas Municipal Water District

**KEY PERSONNEL:** Michael Nunley, PE - Task Manager; Becca Bugielski, PE - Engineer; Robert Lepore, GISP - Modeling, Chris Martin- Water Quality

**DURATION/KEY MILESTONES:** On-Call started in 2018, 24 task orders issued to date

## **CLIENT CONTACT:**

Julia Aranda, Engineering Manager 1055 N Ventura Ave Oak View, CA 93022 805.649.2251 jaranda@casitaswater.com

## **ENGINEERING FEE (CONTRACT VALUE):**

\$950,000 issued to date

**ESTIMATED CONSTRUCTION:** Varies by project, cumulative is approximately \$8.8M

## **BRIEF DESCRIPTION**

MKN is currently serving as one of five firms on the On-Call for Casitas Municipal Water District. The number of task orders sent to our team demonstrates our focus on responsiveness, quality and value. Many of the task orders issued by Casitas are similar to those anticipated by the District. These include the following:

- Wellfield Technical Services (Ongoing): Contract \$130,000 Outcome: Design of new well and technical services for wellfield pumping
- Running Ridge Zone Hydraulic Analysis: Planning/ Hydraulic Modeling; Contract \$19,722. Outcome: On time and on budget.
- Signal Booster Zone Hydraulic Analysis: Planning/ Hydraulic Modeling; Contract \$17,306; Outcome: On time and on budget.
- Casitas Ojai Waterline Replacements: Design (Ongoing);
   Contract \$208,951. Outcome: Pending, but progress deliverables have been on time and on budget.
- Running Ridge Zone Improvement: Design (Ongoing);
   Contract \$323,221. Outcome: Pending, but project on schedule to date.
- Signal Tank Replacement and Pump Station Improvements: Design (Ongoing); Contract \$180,594.
- Outcome: Pending, but project on schedule to date.

Additional Projects: Ojai/Casitas Water System Integration Feasibility Study, Robles Diversion Fish Screen Alternatives Study; Robles Diversion Fish Screen Prototype Test Plan; Oak View Pipeline Thrust Restraint Design; Ojai/Santa Paula

Pipe Load Analysis; Ojai Pumping Plant Performance Evaluation, Mutual Well #7 Design, Heidelberger Slope Stabilization Study, Wellfield Technical Services, Signal Tanks and Booster Pump Station Preliminary Design.



## **Five Wells Arsenic Treatment Project**

City of Bakersfield, CA

OWNER: City of Bakersfield
DURATION: 2016-2017
CLIENT CONTACT:
Art Chianello, PE
Water Resource Department
661.326.3715



## **BRIEF DESCRIPTION**

The City of Bakersfield (City) potable water system is served by both surface water and groundwater wells. When the maximum contaminant level (MCL) for arsenic was lowered in 2008, the CIty was forced to take multiple key wells out of service due to elevated levels of arsenic. The fluctuations in available surface supply, coupled with the location of five specific wells within the City's distribution system, led to prioritization of these sites for treatment and reactivation. Based on the City's success with constructing, testing, and commissioning adsorptive treatment at another well site it was determined that this method should be used at these five key wells. Each well was equipped with dual adsorptive vessels, pH adjustment equipment, flow and pH monitoring, flow bypassing, and flush to waste provisions. MKN was retained to review and refine the arsenic vendor equipment proposals including treatment processes and efficiencies, perform conceptual site layouts, prepare draft & final construction document bid packages, and provide construction support including on site construction observation.

## WELL 6a ARSENIC TREATMENT INTEGRATION

Quartz Hill Water District, CA

Quartz Hill Water District (QHWD or District) operates three groundwater wells (Wells 6a, 7, and 8) that are located between 30th and 35th Street West just north of West Avenue L. Water quality testing for Well 6a indicated arsenic concentrations of 34  $\mu$ g/L which exceeds the State Maximum Contaminant Level of 10  $\mu$ g/L. The District determined that Well 6a would be equipped with an adsorptive media treatment system. Along with the water treatment system, Well 6a was also to be equipped with flow and pH monitoring, pH adjustment, flow bypassing equipment, and flush to waste provisions.

MKN was retained to review and refine the arsenic treatment system vendor equipment proposals including treatment processes and efficiencies, perform conceptual layouts, prepare draft and final construction document bid packages, and perform construction phase services.



## HIGHLIGHTS

- Adsorption Media System
- Equipment Pre-Procurement
- Arsenic Removal

facilities, including many using an adsorption process (i.e. GAC). Our team also is currently working on a PFAS treatment system for experience on more than 30 wellhead treatment collective brings Atascadero Mutual Water Company. team MKN proposed The

MKN's experience includes various constituents, including Nitrate, PCE/TCE, Iron and Manganese, Arsenic and PFAS.

	WELLHEAD TREATMENT	ATMENT	
Client	Project	Туре	Constituent
Atascadero MWC	PFOS/PFOA Treatment	Ion Exchange, GAC	PF0A and PF0S
California Institution for Men	Chino Prison Water Treatment	lon Exchange; GAC	Nitrate, Hardness, TCE
Capistrano CSD	Capistrano Desalter	Membrane	Iron Removal, TDS
City of Arroyo Grande	Well No. 11	GAC and Greensand	Iron and Arsenic
City of Bakersfield	5 Wells Arsenic Treatment	Adsorption	Arsenic
City of Compton	Well 16 and 18 - Planning	Various	PCE/TCE
City of Goleta	Anita Well	GAC, Greensand, Airstripping	Fe & Mn, TTHM
City of Grover Beach	Grover Beach Nitrate Removal	lon Exchange	Nitrate
City of Guadalupe	Well 5	lon-exchange	Nitrate
City of Lynwood	Well No. 11	GAC	PCE/TCE
City of Lynwood	Well No. 19	GAC and Greensand	PCE/TCE and Fe & Mn
City of McFarland	McFarland Well 2	lon Exchange	Nitrate
City of McFarland	McFarland Well 4	lon Exchange	Nitrate
City of Paso Robles	Sherwood Wells	Adsorption, GAC	Arsenic, Sulfide, Taste & Odor
City of Pismo Beach	Meadow Creek Wells	Oxidation-filtration	Fe & Mn
City of Solvang	Well 22	Oxidation-filtration	Sulfide, Fe & Mn
Confidential Client	Well	Cl, Greensand, RO	Sulfide, TDS
County of Dare	Skyco Color Removal	lon Exchange	Color/ THM precursors
Crescenta Valley County WD	Glenwood Treatment Plant	lon Exchange	Nitrate
East Niles CSD	Well 18 Arsenic Treatment	Adsorption	Arsenic
East Niles CSD	Well 22 Arsenic Treatment	Adsorption	Arsenic
East Niles CSD	Well 21 GAC Treatment	Adsorption (GAC)	TCP
Jurupa CSD	Jurupa IX Plant	lon Exchange	Nitrate
Jurupa CSD	Jurupa IX Plant Expansion	lon Exchange	Nitrate
Kern Housing Authority	N. Shafter FLC	lon Exchange	Nitrate
Los Osos CSD	Nitrate Removal Evaluation	Various	Nitrate
Maywood Mutual #2	Maywood Well	Greensand	Fe & Mn
Monte Vista Water District	Well 33 Treatment	lon Exchange	Nitrate, hardness
Nipomo CSD	District-wide	Chloramine conversion	МНТТ
University Enterprises	Central Union School District Arsenic Removal	Adsorption	Arsenic
University Enterprises	Lancaster Mobile Home Park Arsenic Removal	Adsorption	Arsenic
Three Crowns Industrial Park	Well 1-3 TCP Treatment	Adsorption (GAC)	TCP
Belmont Water Corporation	Well 1 TCP Treatment	Adsorption (GAC)	TCP

## **MEMBRANE**

CM/PMt	•		•		•							•	•	•								•			•	•	•		
Rehabilitation							•	•										•					•						
Final Design	•	•					•				•	•	•	•					•		•	•			•			•	
Pre-Design	•	•		•		•					•	•	•	•			•		•		•	•		•	•				
Piloting	•										•	•	•	•	•						•			•					•
Planning	•	•	•	•		•		•	•	•	•	•	•	•	•	•	•	•	•	•	•			•	•			•	
(MGD) əziS	25	18	10	8	7.5	5	7.5	7.5	7	7	5	5	5	7	7	3.4	3	3	2.4	2	1.5	1	1	1	1		<1	0.43	
Membrane Type	UF	WWRO	WWRO	BWNF	BWRO	BWR0	BWRO	BWRO	SWRO	SWRO	SWRO	BWRO	MF	BWR0	WWRO	WW MF, RO	BWR0	BW RO/NF	MF	SWRO	BWRO	BWNF	SWRO	BWRO	WWRO	SWRO	SWRO	SWRO	BWRO
Project	David C. McCollom WTP	18 MGD/WWRO	ARC AWPF	Deep Aquifer Treatment System	GREAT Program Brackish Desalter	BS No. 3 Brackish Desalter	Water Operations Support Contract	Brine Optimization	Seawater Desalination Feasibility Study	Seawater Desalination Feasibility Study	Marin Desalination Pilot Study	San Juan Capistrano Desalter	5 MGD MF	Richard A. Reynolds GW Desalination Facility	Fillmore WRF Treatment Study	Chloride Reduction Study	Brine Optimization	BWRDF Facility Master Plan	Nacimiento Surface WTP	Seawater Desalination Feasibility Study	1.5 MGD/BWRO	EDR Replacement	Emergency Ops Plan	Beverly Hills Desalter WTP	WWTP	Seawater Desalination Project	Catalina Desalter Project	Seawater Desalination Project	Ag. Drainage Study
Client	Olivenhain MWD	City of San Diego	Water Replenishment District	Irvine Ranch Water District	City of Oxnard	City of Oxnard	City of Oxnard	City of Oxnard	Monterey Peninsula WMD	North Coast Water District	Marin Municipal WD	Capo. Valley CWD	Santa Nella CWD	Sweetwater Authority	City of Fillmore	Santa Paula	Port Hueneme WA	Port Hueneme WA	Paso Robles	Channel Islands CSD	Capistrano Beach WD	Port Hueneme WA	City of Morro Bay	City of Beverly Hills	RJ Donovan Prison	City of Morro Bay	Southern California Edison	Cambria CSD	Buena Vista WSD

Legend: RO - Reverse Osmosis, NF - Nanofiltration, MF - Microfiltration, UF - Ultrafiltration, WW - Wastewater, BW - Brackish Water, SW - Seawater

	<b>PUMP STATIONS</b>	SNC	
Project	Client	Capacity	Type of Work
Kern County Water Agency	Cross Valley Canal Expansion	500 cfs	Preliminary, Design
West Stanislaus Irr District	Pump Station 1A	350 cfs	Preliminary, Design
ND State Water Commission	Devil's Lake Outlet Project	300 cfs	Preliminary, Design
MWD of Salt Lake/Sandy	15000 South PS	150 cfs	Preliminary, Design
Bakersfield	Westside Parkway SW PS	100 cfs	Preliminary, Design
Kern County Water Agency	Northwest Feeder PS	70 cfs	Preliminary, Design
Private Agriculture	Canal Pumping Plant	45 cfs	Preliminary, Design, CM
Kern County Water Agency	North & East PS	40 cfs	Preliminary, Design
ND State Water Commission	Southwest Pump Stations	39 cfs	Preliminary, Design
Monterey County WRA	Salinas River Diversion Facility	35 cfs	Preliminary, Design
Hollister	Seasonal Return PS Facility	20 cfs	Preliminary, Design
Westlands WD	Pumping Plant 7-1 Expansion	4,000 gpm	CM
East Niles CSD	Kern Citrus PS	5,700 gpm	Preliminary, Design, CM
East Niles CSD	Brentwood PS Relocation	3,000 gpm	Preliminary, Design, CM
Burbank Water & Power	RW PS-1 Upgrades	3,000 gpm	Preliminary
NFV-1 /Cal Water	Millerton Zone 640 BPS	3,000 gpm	Preliminary, Design, CM
East Niles CSD	Well 21 PS Phase 2	2,250 gpm	Preliminary, Design, CM
G.L. Bruno Associates	Freeway Tank PS	2,000 gpm	Preliminary, Design, CM
Kern County Water Agency	23 Corner Tank PS	2,000 gpm	Preliminary, Design, CM
Paso Robles	Nacimiento Surface WTP	2,000 gpm	Preliminary, Design, CM
Nipomo CSD	Joshua Road BPS	2,000 gpm	Preliminary, Design, CM
City of Oxnard	BS No. 6 PS	2,000 gpm	Preliminary
East Niles CSD	East Niles PS Replacement	2,000 gpm	Preliminary
Guadalupe	Bonita PS Rehabiliation	1,500 gpm	Preliminary, Design
Guadalupe	Obispo Tank #2 PS	1,500 gpm	Preliminary
San Luis Obispo	Arlita BPS Replacement	1,500 gpm	Preliminary, Design
Morro Bay	Desal Plant PS Improvements	1,350 gpm	Preliminary, Design, CM
West Basin MWD	Palos Verdes PS	1,000 gpm	Preliminary
Casitas MWD	Signal PS Replacement	400 gpm	Preliminary
San Luis Obispo	Rosemont BPS Replacement	400 gpm	Preliminary, Design
San Lorenzo Valley WD	Regional Intertie No. 2-4,6	350 gpm	Preliminary, Design
Casitas MWD	Running Ridge Improvements	300 gpm	Preliminary, Design
Missouri-American Water	Pump Station Improvements	1,500 gpm	Preliminary, Design
Cambria CSD	Booster Station Improvements	1,300 gpm	Preliminary, Design
Missouri-American Water	Warrensburg Tank & Booster	1,500 gpm	Preliminary, Design, Startup
Illinois-American Water	River House PS Improvements	3.5 MGD	Preliminary, Design

	PIPELINES			
Project Name	Client	Diameter (inches)	Material	Length
Westlake Reservoir	Las Virgenes MWD	30, 36	Steel	2,200
Via California Replacement	South Coast Water District	10	PVC	200
Potable Pipeline Project	Ventura County	12	PVC	20,00
Group Job 1 Pipeline Replacement	Vista Irrigation District	4, 6, 10	PVC	10,000
CDBG Waterline Replacement	City of Grover Beach	8	PVC	2,400
CDBG Waterline Replacement	City of Grover Beach	8'9	PVC	5,500
West Ojai Pipeline Project	Casitas MWD	∞	PVC	2,600
Branch St Water Improvements	Nipomo CSD	8	PVC	2,100
Supplemental Water Project	Nipomo CSD	12, 18, 24	DIP, HDPE	27,000
South Feeder Parallel Pipeline	Antelope Valley/East Kern WA	24, 36, 48	Steel	34,320
95th Street East PS/Turnout	Antelope Valley/East Kern WA	20	Steel	200
North Kern WSD Canal 9-26	California Rail Builders	42	Conc/HDPE	400
Morning and 178 Intertie	East Niles CSD	20	Steel	1,320
Pioneer Pipeline Project	East Niles CSD	12	PVC	1,400
Morning Dr Transmission Pipe	East Niles CSD	20	Steel	5,500
Redbank Rd Pipeline Project	East Niles CSD	8, 14	PVC	008'9
Well 20 Flushing Pipeline Project	East Niles CSD	12	PVC	1,500
Northwest Feeder PS & Pipeline	Kern County Water Agency	42	Steel	21,120
LUSD Connection to Bakersfield	Lakeside Union SD	16	PVC	15,500
Devils Lake Emergency Outlet	ND State Water Commission	30, 54	Steel, HDPE	3,500
Southwest Pipeline Project and PS	ND State Water Commission	24, 30	Steel	448,800
Highland Park Improvement	North of the River MWD	8, 12	PVC	27,000
Tognazzini Well Intertie	City of Guadalupe	8	PVC	009
Highland Waterline Replacement	City of San Luis Obispo	24	DIP	165
VCH Rio Mesa Well & Pipeline	Valley Children's Hospital	12	PVC	1,800
Regional Transmission Mains	City of Fresno	16-48	WSP, DIP	98,640
Friant-Kern Canal Pipeline	City of Fresno	09	WSP	26,400
Salinas River Diversion Facility	Monterey County WRA	20, 30	WSP, DIP	10,560
Nacimiento Water Pipeline	SLO County Flood Control	18-36	PVC, DIP	264,000

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Marine Park Irrigation Retrofit Project CDBG Waterline Replacement (2020) CDBG Waterline Replacement (2019) Branch St Water Improvements West Ojai Pipeline Project				170.7
Marine Park Irrigation Retrofit Project CDBG Waterline Replacement (2020) CDBG Waterline Replacement (2019) Branch St Water Improvements West Ojai Pipeline Project				(reet)
CDBG Waterline Replacement (2020) CDBG Waterline Replacement (2019) Branch St Water Improvements West Ojai Pipeline Project	City of Santa Monica	9	PVC	2,000
CDBG Waterline Replacement (2019)  Branch St Water Improvements  West Ojai Pipeline Project	City of Grover Beach	9'9	PVC	5,500
Branch St Water Improvements West Ojai Pipeline Project	City of Grover Beach	8	DAC	2,400
West Ojai Pipeline Project	Nipomo CSD	8	PVC	2,100
	Casitas MWD	8	PVC	2,600
Potable Pipeline Project	Ventura County	12	DVC	20,000
Pioneer Pipeline Project	East Niles CSD	12	PVC	1,400
Group Job 1 Pipeline Replacement	Vista Irrigation District	4, 6, 10	PVC	10,000
Sewer Pipeline Improvements	Cayucos Sanitary District	8	DAC	3,500
Tognazzini Well Intertie	City of Guadalupe	8	DAC	009
Toro Creek Bridge Pipeline Rehab	Cayucos Sanitary District	8	PVC	100
Pesante Sewer Replacement	East Niles CSD	8	VCP	200
Brentwood Sewer Extension	East Niles CSD	8	VCP,PVC,HDPE	1,000
Highland Park Improvement	North of the River MWD	8, 12	PVC	27,000
Redbank Rd Pipeline Project	East Niles CSD	8, 14	PVC	908'9
Via California Replacement	South Coast Water District	10	PVC	200
Palos Verdes Pipeline	West Basin MWD	10, 12	PVC	16,000
Well 20 Flushing Pipeline Project	East Niles CSD	12	PVC	1,500
VCH Rio Mesa Well & Pipeline	Valley Children's Hospital	12	PVC	1,800
Supplemental Water Project	Nipomo CSD	12, 18, 24	DIP, HDPE	27,000
Water Master Plan	East Niles CSD	12-36	NA	67,500
EchoWater Flow Equaliztion Project	Sacramento Regional CSD	12 to 48	Steel	1,000
LUSD Connection to Bakersfield	Lakeside Union SD	16	PVC	15,500
Alternatives Analysis	United Water CD	16	PVC	20,000
Brine Pipeline	Water Replenishment District	16	HDPE	2000
Water Main Under I-70	Columbia Water & Light Dept.	16, 20	FPVC	1,600
French Village Discharge Phase 2	Illinois American Water	16, 24	DIP	16,000
Regional Transmission Mains	City of Fresno	16-48	WSP, DIP	68,640
Arvin RW Disposal Pipeline	Arvin CSD	18	PVC	18,480
Nacimiento Water Pipeline	SLO County Flood Control	18-36	PVC/DIP	264,000
Various flood control projects	Fresno Met Flood CD	18-48	RCP/CIP	21,120
Urgent Works Storm Drainage Program	Municipality of Jeddah	18-96	RCP/CIP	100+ miles
95th Street East PS/Turnout	Antelope Valley/East Kern WA	20	Steel	200
Morning Dr Transmission Pipe	East Niles CSD	20	Steel	5,500
Morning and 178 Intertie	East Niles CSD	20	Steel	1,320
Salinas River Diversion Facility	Monterey County WRA	20, 30	WSP/DIP	10,560
Ethanol Plant	Abengoa Bioengergy of Illinois	24	DIP	9,300
Frontage Rd Trunk Sewer Replacement	Nipomo CSD	24	PVC	4,200

d	PIPELINES - CONT.	ij		
Project Name	Client	Diameter (inches)	Material	Length (feet)
Highland Waterline Replacement	City of San Luis Obispo	24	DIP	165
Southwest Pipeline Project and PS	ND State Water Commission	24, 30	Steel	448,800
South Feeder Parallel Pipeline	Antelope Valley/East Kern WA	24, 36, 48	Steel	34,320
Mississippi Bridge Main Relocation	Illinois American Water	24, 48	DIP	300
Ninth Street Storm Drain Replacement	City of Modesto	24-96	RCP/CIP	52,800
Wastewater Improvements	Gunner Ranch	27, 30	PVC	21,120
Westlake Reservoir	Las Virgenes MWD	30, 36	Steel	2,200
Devils Lake Emergency Outlet	ND State Water Commission	30, 54	Steel, HDPE	3,500
Pipeline Loading Evaluation	Casitas MWD	33	Steel	NA
Water Transmission Feasibility	Illinois American Water	36	DIP, HDPE, Steel	10,000
Anaheim Valve Vault	Orange County Water District	36	Steel	500
North Kern WSD Canal 9-26	California Rail Builders	42	Conc/HDPE	700
GRIP Conveyance Alternatives Analysis	Water Replenishment District	42	Steel	25,000
Northwest Feeder PS & Pipeline	Kern County Water Agency	42	Steel	21,120
WWTP Influent Piping Improvements	Santa Maria	42, 48	ЬE	009
Friant-Kern Canal Pipeline	City of Fresno	09	WSP	26,400

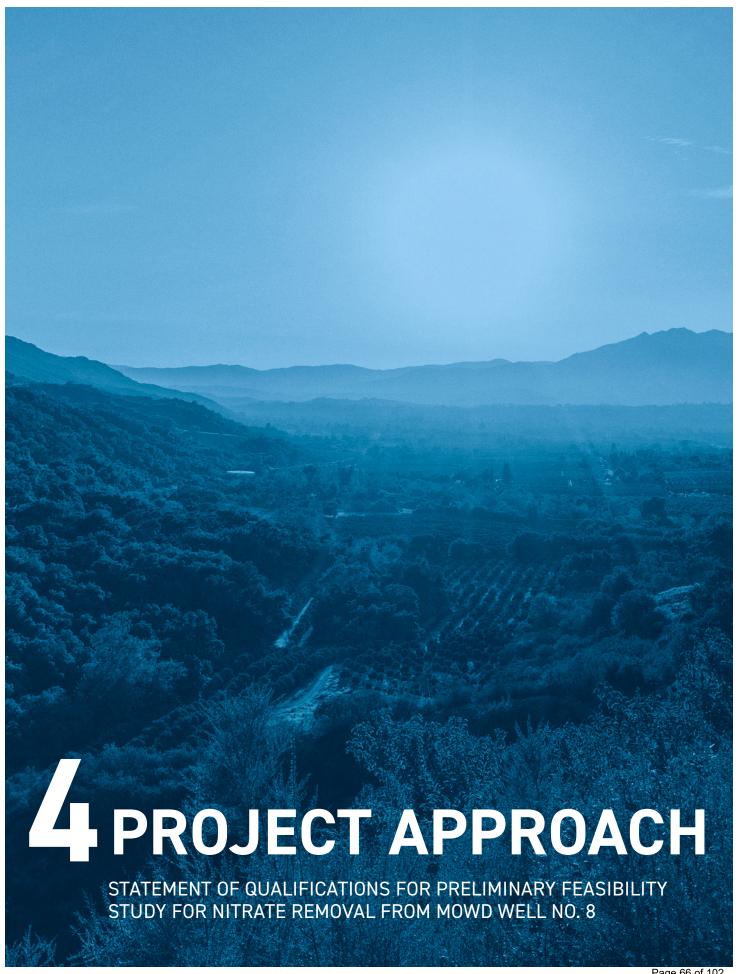
	Service	MM	MM	M	*	M	W	M	M	W	W	M	M	W	MM	MM	M	M	MM
ALYSIS	Client	Arroyo Grande	Atascadero	Atascadero MWC	Atascadero MWC	Atascadero MWC	Atascadero MWC	Atascadero MWC	Atascadero MWC	Casitas MWD	Casitas MWD	Casitas MWD	Coalinga	East Niles CSD	Gonzales	Grover Beach	Guadalupe	Guadalupe	Guadalupe
HYDRAULIC ANALYSIS	Project Name	Lift Station No. 1 Hydraulic Modeling	LAMP Evaluation	PFOS Blending and Compliance	Water System ISO Hydraulic Modeling	Random Oaks BPS Hydraulic Modeling	Oak Ridge Fire Flow Hydraulic Modeling	Atascadero High School Fire Flow Hydraulic Modeling	Central Water Treatment Plan Hydraulic Evaluation	Ojai Water System Transmission Main Optimization Study	Running Ridge Zone Hydraulic Analysis	Signal Booster Zone Hydraulic Analysis	Water System Analysis	Tract 6656 Hydraulic Analysis	Trunk Sewer Analysis	El Camino Real Sewe Analysis	Apio Inc. Water Expansion Analysis	DJ Farms Water System Review and Modeling	Apio Inc. Wastewater Expansion Analysis

HYDRAULIC ANAL	YSIS - CONT.	
Project Name	Client	Service
Pioneer Apartments Capacity Evaluation	Guadalupe	ww
Gularte Lift Station Evaluation	Guadalupe	WW
GSWCCR Water Modeling	Nipomo CSD	W
Standpipe Water Modeling	Nipomo CSD	W
Nitrification Control Plan	Nipomo CSD	W
Supplemental Water Project Modeling	Nipomo CSD	W
Nipomo Supplemental Water Project Water Delivery Phasing Hydraulic Modeling	Nipomo CSD	W
Sewer Model Update	Nipomo CSD	WW
GSWCCR Concept Design Report	Nipomo CSD	W
GSWC Concept Design Report	Nipomo CSD	W
WMWC Concept Design Report	Nipomo CSD	W
Joshua Road Pump Station Pump Selection	Nipomo CSD	W
Flushing Analysis	North of the River MWD	W
Dove Hollow Water System Evaluation	Odell Engineering	W
Lift Station No. 2 Evaluation	Port San Luis Harbor District	WW
Lift Station No. 3 Evaluation	Port San Luis Harbor District	WW
Water Age Analysis	San Luis Obispo	W
Transfer Pump Station Hydraulic Evaluation	San Luis Obispo	W
WWTP Influent Piping Improvements	Santa Maria	WW
Water Demand Analysis	Soledad	W
Cumulative Development Hydraulic Analysis	Templeton CSD	W
Tract 3075 Hydraulic Analysis	Templeton CSD	W
Las Tablas Village Tract 2992 Hydraulic Analysis	Templeton CSD	W
On-call Hydraulic Modeling Support	Templeton CSD	W
Vineyard Elementary School Annex	Templeton CSD	W
Rio Mesa Well	Valley Children's Hospital, Madera	W
Front & Laurel Apartments Development Modeling	Ventura	WW/W
Ventura Veterans Home Development Modeling	Ventura	WW/W
Aldi's Grocery Store Development Modeling	Ventura	WW/W
Cairns Subdivision Development Modeling	Ventura	WW/W
The Tides Development Modeling	Ventura	WW/W
The Lofts Development Modeling	Ventura	WW/W
2110 North Ventura Avenue Development Modeling	Ventura	ww/w
637 Sheridan Way Development Modeling	Ventura	WW/V
Laurel Courts Development Modeling	Ventura	ww/w
Water System Evaluation	VST Merced	W
Sewer System Evaluation	VST Merced	WW

	STORAGE		
Project Name	Client	Volume (MG)	Туре
Westlake Reservoir	Las Virgnes MWD	C	PS
LVLWTF Storage Analysis	Water Replenishment District	5	O
Storage Analysis (Lynwood)	Water Replenishment District	2	PS
Wastewater Treatment	Private (City of Beaumont)	0.1	S
Supplemental Water Project	Nipomo CSD	5.	PS
Terrace Hill & Washwater Tank No. 2	San Luis Obispo	.75 (2)	S
Golden Hill & Merryhill Reservoir	Paso Robles	4, 0.5	S
21st Street Reservoir	Paso Robles	3 (2)	PS
Bonita Tank Condition Assessment	Guadalupe	0.5	S
Obispo Water Storage Tank No. 2	Guadalupe	9.0	S
Elevated Tank Rehabilitation	Guadalupe	0.1	S
Well Tank 4 Recoating	Delano	2	S
Plant 2 Tank Recoating	Delano	2	S
PS Reservoir	East Niles CSD	1.2	PS
Country Club/College Fairfax	East Niles CSD	0.4 (2), 0.8, 2	S
Pepper Drive Tank Project	East Niles CSD	9.0	S
Kern Citrus Tank Project	East Niles CSD	8.0	S
Well 21 Arsenic Treatment	East Niles CSD	0.4	S
Cache Creek System Improvements	Mojave Public Utility District	0.08	S
Warrensburg Tank & Booster	Missouri American Water Company	0.8	PS
Second Dickinson Reservoir	ND State Water Commission (NDSWC)	5	PS
Stockton Reservoir Replacement	Ventura County Water & Sanitation	1	S
Signal Tank and P. S. Replacement	Casitas Municipal Water District	0.3	S
Barger Canyon Reservoir	Goleta Water District	1	С
Meridian Reservoir	Ventura County Water & Sanitation	1.5	S
Tunnel Rd PS & Reservoir Rehab	Santa Barbara	1	S
Pine Knolls Reservoirs	Cambria CSD	0.5 (2)	S
Reservoir No. 2 Replacement	City of San Luis Obispo	2.5 (2)	PS

CONSTRUCTION INSPECTION	
De La Garrigue Bridge	Casitas Municipal Water District
Various Recycled Water Pipeline Projects	City of Fresno
Various Sewer System Rehabilitation and Replacement Projects	City of Fresno
Various Projects	East Niles CSD
Various Projects	Nipomo CSD
Office Waterline Project	East Niles CSD
Office Sewer Project	East Niles CSD
Rosewood PS Relocation Project	East Niles CSD
Water Treatment Plant	City of Paso Robles
Lift Station #1 Manhole Rehabilitation	City of Arroyo Grande
Creek Sewer Rehabilitation	City of Arroyo Grande
Sewer and Storm Drain Pipe Lining	City of Arroyo Grande
Trusspro Sewer Repair	City of Guadalupe
Pasadera Development Construction Observation	City of Guadalupe

GRANT	FUNDED PROJECTS
Grant Type	Client
State Revolving Fund	City of Morro Bay
State Revolving Fund	Templeton CSD
State Revolving Fund	South San Luis Obispo County Sanitation District (SSLOCSD)
State Revolving Fund	Athal Mutual Water Company
State Revolving Fund	Land of Promise Mutual Water Company
State Revolving Fund	City of Santa Paula
State Water Resources Control Board Planning Grant	Heritage Ranch CSD
State Water Resources Control Board Planning Grant	City of Morro Bay
United States Department of Agriculture	SSLOCSD
United States Department of Agriculture	City of Guadalupe
WIFIA (EPA)	City of Morro Bay
Bureau of Reclamation	City of Morro Bay
Proposition 1 Funding	Lancaster Mobile Home Park
Proposition 1 Funding	Central Union School District Water System Improvements
Proposition 1 Funding	Big Sandy Rancheria Wastewater System Improvements*
Proposition 1 Funding	Averydale Mutual Water Company Water Meter Improvements*



## **SECTION 4**

## PROJECT APPROACH

Meiners Oaks Water District (MOWD) provides potable water service to a population of about 4,200 people through 1,280 service connections in Ventura County. The primary water source for MOWD is groundwater (primarily Ventura River undeflow) which is supplemented by water from Casitas Municipal Water District (CMWD) when groundwater levels are low. While groundwater quality is generally good, water from MOWD Well 8 typically exceeds the California Maximum Contaminant Level (MCL) of 10 mg/L for nitrate-N. Since Well 8 is typically less impacted by low groundwater levels, MOWD wishes to investigate methods of reducing nitrate concentration below the MCL so that the well can be used more frequently.

Nitrate is an anion commonly found in groundwater. While it can be naturally occurring, it is more frequently present due to activities of man, such as septic tanks or agricultural activities (nitrate is used as a fertilizer). Nitrate can be removed from water by ion exchange, membrane treatment such as reverse osmosis, or by biological activity. Each of these processes presents challenges, particularly at an inland location.

Ion exchange (IX) uses a charged synthetic resin that exchanges chloride ions (originally on the resin) with nitrate ions in the water stream. When the resin becomes exhausted it is regenerated with a concentrated salt solution. This produces a waste brine with high nitrate concentration and salinity of about three percent, which is approximately that of seawater. The volume of brine is usually two to three percent of the treated water. Thus, IX produces a low volume of saline waste.

Reverse osmosis (RO) is a membrane process that splits the influent into two streams: a high-quality permeate stream that is depleted in salts (including nitrate) and a concentrate stream that contains the salts removed from the permeate. For a brackish water system the permeate flow will typically be 70 to 90 percent of the influent, and will have total dissolved solids (TDS) as low as 10 to 20 mg/L. The concentrate will be the remainder and will have

TDS of 3,000 to 10,000 mg/L. Thus, RO produces a relatively large volume of lower TDS waste, but the TDS is high enough to preclude use for irrigation.

In recent years, several attempts have been made to use biological means to reduce nitrate in potable water systems. While this is common in wastewater treatment, it has been difficult to apply successfully in drinking water treatment. The greatest advantage of the process is that there is no saline waste stream produced. However, to date no one has been able to operate it successfully long term. While this process should be reviewed, its lack of demonstrated long-term viability makes it unlikely.



Perhaps the most straightforward method of dealing with high nitrate in the well water is to blend it with a low-nitrate water. This method produces no waste, has essentially no operating cost, and is very reliable. However, it requires a reliable source of blending water and will probably entail significant capital cost for construction of pipelines, pump stations, and blending tanks.

The most important takeaway from the preceding discussion on treatment methods is that all likely processes produce a significant waste product. Disposal of this waste will constitute the largest challenge of the treatment process. Potential waste disposal options include:

 Disposal to the Ventura River. Considering that one of the objectives of the project is to improve Ventura River water quality, this is unlikely.

- District sewer main in Rice Road. This would but would initially appear to be the most Construction of a pipeline to an Ojai Sanitary require an agreement with Ojai Sanitary District to receive the saline waste product, attractive method.
- systems. With this method, the IX vessels are replaced when exhausted and regenerated at a different location licensed for saline discharge. require frequent (at least weekly) exchanges. While this would be an expensive option, it would exchangeable ion exchange This is similar to the well-known Culligan eliminate the need for onsite waste disposal. service. It would softener of Make use
- receive and evaporate the waste stream. This face significant permitting hurdles from the could be feasible for IX treatment, but would Construct nearby evaporation ponds Regional Board.

of evaluating methods will take Considering these issues, MKN reducing nitrate in MOWD Well 8. approach to following

Initialworkwillconsistofdevelopinganunderstanding of the MOWD system, well characteristics (including production rates and water quality), and potential disposal alternatives. Using this information, MKN will develop projections of performance of IX and RO treatment systems to determine treated water quality, blending opportunities, and waste production. MKN will also contact suppliers and users of biological treatment systems to determine whether this is viable alternative. Using information on MOWD operations, develop include low- and high-use scenarios where Well 8 is used either as a peaking supply or a base-loaded supply. These scenarios will then be used to determine two likely scenarios for implementation. These will capital and operating and maintenance (O&N requirements and costs for the treatment processes.

opportunities to avoid treatment by blending Well 8 water with other water supplies. This will include evaluation of the necessary capital facilities to permit reliable blending as well as operational impacts such as requiring a blending water supply to be online In addition to developing the treatment projections, MOWD system evaluate the MKN will

while Well 8 is operating. Sources of blending water might include other MOWD wells and CMWD

MKN will consider methods of waste disposal Following development of the treatment processes, including:

- include contacting the District to determine its requirements and fees for accepting the waste stream, as well as concept-level design of the Connection to the Ojai Sanitary District. This will capital facilities needed to make the connection.
- Review potential suppliers of exchangeable IX services. If a local supplier can be found, MKN will obtain quotes for these services.
- A high level review of potential locations along with review of Regional Board requirements for evaporation ponds.

Report discussing potential solutions to Well 8 high nitrate concentrations, presenting the options and along with conceptual-level estimates of costs and MKN will prepare draft Feasibility evaluating their advantages and disadvantages, ij developed information regulatory impacts. the evaluations, Using

## SCOPE

MKN proposes to perform the following scope of services:



TASK GROUP 100



MKN will attend a kickoff meeting at MOWD offices or MKN's Ventura office (or, potentially, by video conference). At this meeting, MKN will receive data on Well 8 and the MOWD water system to be used in the evaluation. After review of this information MKN will develop a data needs request for any supplemental information that will be required to complete the feasibility study. MKN will attend one progress meeting to discuss project alternatives and obtain MOWD's input on the approach to take.

After MOWD reviews the draft Feasibility Study MKN will finalize the report and attend one meeting with the MOWD Board of Directors to present the findings of the Study.

## 2 TASK GROUP 200 Treatment Evaluation

Data received in Task 100 will be used to develop a Basis of Design, which will include raw water quality, system capacity, target product water quality, and any other criteria identified by MOWD.

MKN will prepare projections of performance of IX and RO treatment, including process applicability, treated water quality, water recovery, waste production and quality, energy requirements, chemical requirements, and conceptual plant layouts.

MKN will contact known users and suppliers of biological nitrate removal systems to determine feasibility of this process. If it appears feasible, MKN will request an evaluation of the process from the supplier to support comparison to RO and IX.



## TASK GROUP 300 System Integration

MKN will review the requirements for integrating nitrate treatment into the MOWD system. This will include:

- Evaluation of the existing well pump and the need to replace or rebuild the pump.
- Locating the treatment plant conceptual layout in potential locations.
- Potential blending water sources and locations of blending facilities
- Review methods of delivering treated or blended water into the MOWD distribution system, including any tanks, pump stations, or piping required.
- Evaluate potential limits on operation due to waste disposal limitations, limits on blending supplies, or other internal or external factors.

For blending scenarios, an evaluation of specific operating requirements will be developed such as determining what blending source and volume will be required when Well 8 is in operation.



## TASK GROUP 400

## **Prepare Feasibility Report**

MKN will take the findings of the previous tasks and present them in a draft Feasibility Report for review by MOWD staff. The Feasibility Report will provide conceptual cost estimates and layouts of treatment and blending options. A Fatal Flaw analysis will be provided, as well as a comparison of feasible alternatives.

Following MOWD review of the draft Feasibility Report, MKN will incorporate MOWD's comments and prepare a Final Feasibility Report for presentation to the Board of Directors.



TASK GROUP 500

## Project Management and Quality Control

MKN will provide effective management of time and budget for the study. Monthly progress reports will be provided along with invoices.

All deliverables will be reviewed by a principal engineer not otherwise associated with the project prior to submittal to MOWD to verify compliance with this Scope of Services and good engineering practice.





Arroyo Grande/Corporate Office

530 Paulding Circle, Ste. B Arroyo Grande, CA 93420

Bakersfield

1800 21st St., Ste C Bakersfield, CA 93301

Fresno

8405 North Fresno St., Ste. 120 Fresno, CA 93720

Irvine

16310 Bake Parkway Irvine, CA 92618

Oceanside

702 Civic Center Dr., #104 Oceanside, CA 92054

**Santa Clarita** 

23942 Lyons Ave., Ste. 215 Newhall, CA 91321

Ventura

121 North Fir St., Ste G Ventura, CA 93001





## Preliminary Feasibility Study for NITRATE REMOVAL FROM WELL NO. 8





#### Summer Ward

Billing/Board Secretary Meiners Oaks Water District 202 W. El Roblar Drive Ojai, CA 93023

#### WSC San Luis Obispo

805 Aerovista Place Suite 201 San Luis Obispo, CA 93401

**P**: 805.457.8833 **F**: 805.888.2764

#### **WSC Camarillo**

360 Mobil Avenue Suite 213 C Camarillo, CA 93010

#### Dear Summer.

Meiners Oaks Water District (District) is pursuing a unique opportunity to improve groundwater and river water quality and collaborate with project partners to develop a multi-benefit solution that is environmentally friendly and alleviates drought related concerns. We approach all projects, no matter the size, with a holistic mindset that considers value, return on investment, and long-term impacts related to operations, maintenance, cost, safety, and ultimate benefit.

Water Systems Consulting (WSC) has supported Central Coast and Southern California clients with similar nitrate removal preliminary feasibility studies, design, and construction projects. We partner with our clients to develop solutions that create lasting value.

We understand what it takes to successfully address project challenges and communicate effectively to gain internal and external support.

Based on our understanding of the District's priorities and objectives, WSC will provide a comprehensive approach that delivers:

The right treatment technology. We will help the District find and choose the optimal treatment alternative we believe will bring the most value. We will leverage our relationships with water treatment system vendors to make sure we are using real values for commercially available packaged treatment systems in our analysis.

A trusted partner for you and your stakeholders. We will put relationships first with every project partner. By listening to understand, we will develop a feasibility study which leads to a solution that supports your goals, timeline, and budget.

Cost estimates the District can rely on. We will leverage information we already have from the schematic drawings, equipment vendors, our similar recent work, and current bid information from local projects to develop reliable cost estimates for the District and its project partners.

Thank you for the opportunity to provide this proposal. We are excited for the opportunity to work alongside the District and to help achieve your objectives. Please feel free to contact Dylan Wade at 805.457.8833 ext. 111 if you have questions or would like to discuss any aspect of this proposal in greater detail.

Sincerely, Water Systems Consulting, Inc.

Dylan Wade | Project Manager/Principal in Charge

# Your Premier Nitrate Removal Firm

WSC is experienced in conducting feasibility studies and delivering quality design documents for removing nitrates and contaminents from municipalties' groundwater systems.

Founded in 2007



45+ expert staff



8 CA & OR offices



Helped win more than \$237M in project funding

WSC is a full-service engineering consulting firm of more than 45 professionals that specializes in innovative and sustainable solutions, relationship building, and bringing value to our clients. We thrive and grow from the philosophy that people come first and that all water has value. We serve private entities, cities, counties, special districts, investor-owned utilities, and regulatory agencies from our eight offices in California and Oregon, including our headquarters in San Luis Obispo.

WSC has led multiple projects in the Ojai Valley, including the Ojai System Master Plan for the Casitas Municipal Water District.

WSC has already demonstrated its organizational skill, creativity, and innovation that will add value to the project, incorporate triple bottom line benefits, and appropriately manage expectations.

— Carrie Mattingly Former Utilities Director, City of San Luis Obispo

WSC utilizes industry-recognized best practices, innovative tools, and creative approaches to design functional and resilient water facilities. We will provide sustainable day-to-day and long-term solutions catered to the District's water system and resource needs.

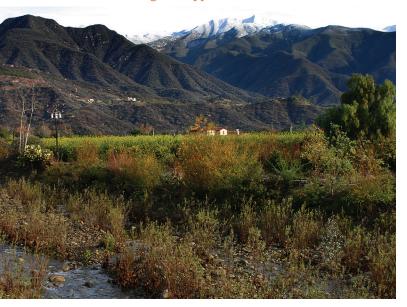
WSC's team includes water quality experts with experience assisting water utility clients with projects, treatment methods, and reduction strategies for nitrates.

The staff assigned to this project have direct, relevant experience conducting feasibility studies for water quality improvement projects to sustainably maintain regulatory compliance. Our clients trust us to communicate and collaborate with their staff to help them identify cost-effective treatment approaches and meet State and Federal drinking water standards.

WSC is a collaborative company that works seamlessly alongside our clients to incorporate their input into our work. We will prepare robust and defensible documentation that can be utilized to provide clear prioritization and reliable cost estimates.

Examples of WSC's previous relevant projects are included on the following pages.

#### Understanding and Approach



# **Understanding**

The District has been driven by supply constraints during recent droughts to consider modifications to its operating portfolio. In order to improve system reliability, the District is seeking a qualified engineering consultant with the specific expertise of WSC to assist them in exploring the feasibility of a multiple benefit nitrate removal project. The intent of the project is to explore both full- and side-stream nitrate removal of water from Well No.8 and the associated disposal stream from a technical and economic perspective under varying operating scenarios to maximize available supplies. To conduct this preliminary feasibility study, Meiners Oaks is leveraging a grant from the California Wildlife Conservation Board made to the Ventura County Resource Conservation District. The anticipated resource benefits of the project are twofold. First, it is anticipated that nutrient loading to the Ventura river will be reduced by removing nitrate from the watershed. Secondly, the increased operation of Well No. 8 will reduce pumping from other wells that have a greater association with stream flows, and this could improve overall watershed water quality.

The District is looking for a consultant that can quickly and efficiently meet the requirements of the grant program while working through the scope of work prepared by the District in the RFP. WSC agrees that the scope defined in the RFP is ideally suited for the task at hand and we do not propose any significant revisions. Our only revision is a request for a site visit to the Well No. 8 site in conjunction with one of the meetings outlined in the RFP.

WSC will partner with the District to deliver the outlined scope of work and will make recommendations on the approach and next steps as we review and analyze the available data to maximize the benefits that this study is exploring.

# Approach

# Mass Balance Spreadsheet Model Will Inform Current and Future Efforts

WSC proposes starting this effort by building a simple Microsoft Excel volumetric model of Well No. 8 and the distribution system's water quality to help us determine water quality objectives and acceptable blends that safely meet finished water requirements for current and future nitrate loadings. We can then develop an acceptable factor of safety to cover changes in feed water quality over the design life of this facility and select a target removal rate. The target nitrate removal rate can be determined in collaboration with the District. This effort enables the District and WSC to quickly come to agreement on acceptable project outcomes, drives the selection of appropriate technologies for further review and cost estimation, and defines the goal for all future efforts.

# Choosing the Right Treatment Technology Sets the Stage for a Multiple Benefit Project

WSC proposes to take the target removal rate data to packaged unit vendors and leverage their efforts to quickly review three (3) nitrate removal alternatives as a component of this project. Without having reviewed the District's water quality data, we propose below the treatment alternatives we believe have the most promise with a brief explanation of their positive and negative attributes. We will leverage our relationships with the vendors of these systems to make sure we are using current values for commercially available packaged treatment systems in our analysis.

Reverse Osmosis Treatment. WSC's proposed Project Manger, Dylan Wade, analyzed a similar groundwater nitrate issue for the City of Morro Bay and ultimately selected Reverse Osmosis as the appropriate technology. He then designed and installed a skid mounted Brackish Reverse Osmosis Unit treatment system to remove Nitrate laden groundwater for the City. Reverse Osmosis (RO) membranes effectively remove nitrates while also reducing salts which can be a concern in alluvial aquifers. While RO membrane high nutrient and salt removal rates are a huge benefit to delivered water quality, drawbacks to an RO system include the disposal of the continuous brine stream and impacts from an ion starved product water to the distribution system.

Onsite Regenerating Ion Exchange Treatment System. Ion exchange resins are often used to selectively remove nitrate from a source's water. As long as there are not competing ions in the groundwater, this can be a cost effective and efficient nitrate removal strategy. Typically, ion exchange resins are periodically regenerated onsite with a brine solution to recharge the resins. This process produces a nitrate-laden brine stream, but less frequently and more concentrated when compared to an RO system.

Offsite Regenerated Ion Exchange Treatment System. There are ion exchange resins that are designed to be regenerated offsite. While this has the higher cost of hauling the ion exchange resin to and from the site, offsite regeneration would remove the brine stream and eliminate the need for a disposal pipeline.

WSC's on staff hydrogeologists have also designed insitu nitrate removal systems, but these do not meet the project's stated goal of having the system be removable and, given those parameters, we do not propose this approach.

# Partnering with the Project's Stakeholders Produces the Best Results

We will build on the legacy that the District has established that has carried the to this point and has secured grant funding. So an important part of our approach will be to partner with the District and with the other project stakeholders. We understand that the District should not deliver this project in a vacuum and will engage Ojai Valley Sanitary District (OVSD) and others as true partners in this project. One of our corporate values is to listen to understand. We will listen to the concerns and constraints of our project stakeholders and will work hard to develop conceptual solutions that address other stakeholder concerns and constraints.

# Leveraging Past Experience and Relationships Leads to Reliable Cost Estimates

Another important element of this project is preparing accurate estimates of treatment costs so that the District and its project partners can make informed decisions on which direction to proceed with the program. WSC recently completed a well project with Eastern Municipal Water District that included costing out a portable system to treat nitrate, VOCs, and TDS in groundwater associated with well construction and testing. We are currently working on another similar project for San Miguelito Mutual Water Company looking at Ultrafiltration and Reverse Osmosis units to determine a treatment strategy for their well field.

WSC uses aerial imagery to overlay a schematic design showing what the end product might look like as a communication tool. A particular concern for this project is understanding the costs, both construction and operational, of brine stream management. One potential solution is to share the design concepts with the equipment vendors and other project stakeholders to show them what we want to build to focus the data they provide back to us. WSC has utilized this method successully on similar projects.

This will allow WSC and the District to leverage the information we have from the schematic drawings, the equipment vendors, our similar recent work, and current bid information from local projects to develop cost estimates that the District and its project partners can rely on.

# The Preliminary Feasibility Report Will Be a Guiding Star for Future Efforts

WSC routinely carries forward projects for our clients from initial conceptualization into operations and we understand how important it is to get this work right. For this project, we believe a successful outcome is an effective strategy captured in a document for the District to develop and implement a nitrate removal treatment system for Well No. 8. A failure for us would be to create a document that sits on a shelf and is forgotten.

While we know that we are working on a constrained and fixed budget, we believe that we can leverage our expertise from past projects to meet the budget and produce a high-quality document that can be a guiding star for future efforts. Having schematic designs and dependable cost estimates will help the District engage effectively with its project partners on next steps. We have learned that having a schematic drawing to work with helps regulatory agencies understand the project and its potential environmental impacts—setting the stage for right-sized CEQA efforts. We have also found that a solid concept and feasibility document can be utilized to pursue grant opportunities, which would enable the District to maximize benefits while minimizing rate-payer burden.

We express our commitment that if selected for this work, we will work efficiently and in the District's best interests to produce a study that is a guiding star for the District and its project partners to carry forward a solution to the problems caused by recent droughts.

# Relevant Experience in Nitrate Removal



# Well 65 and 66 Nitrate Wellhead Treatment Evaluation

Eastern Municipal Water District

WSC staff are involved in a unique State Water Resources Control Board Proposition 1 Water Bond program for Eastern Municipal Water District (EMWD). The program is a long-term solution to improve groundwater quality in the Perris North Groundwater Basin which will not only address groundwater contamination, but it will also provide safe drinking water for approximately 15,000 households annually.

The first two groundwater production wells of the program, Well 65 and Well 66, were drilled in early January 2021. As part of the activities related to Well 65 and Well 66 construction, WSC staff assisted in the design and cost analysis for on-site treatment of groundwater impacted by nitrate (as N), perchlorate, and volatile organic compounds (VOCs) related to new well construction activities (e.g., zone testing, development, and hydraulic well testing). The wells will eventually be connected to a water treatment facility also being constructed as part of the program. WSC estimated the nitrate loading to the liquid phase pressure treatment vessels using nitrate as N maximum groundwater concentrations of 20 milligrams per liter (mg/L) and approximately a 650 gallon per minute flow rate to the treatment vessels. WSC further teamed with Pure Effect, Inc. to develop a detailed cost estimate, cost benefit analysis, and recommendations for on-site treatment. Ultimately, EMWD decided to convey the impacted groundwater to an alternate treatment facility for blending due to the cost prohibitive limitations related to on-site treatment.

#### Relevance to District

- Groundwater Nitrate Removal Treatment
- Design and Cost Analysis for Nitrate Removal

# Conceptual Design and Feasibility Study

San Miguelito Mutual Water Company

WSC is working on a similar project for San Miguelito Community Services District, a small water and wastewater purveyor on California's Central Coast.

WSC was engaged by San Miguelito Mutual Water Company to provide a review of their water supply portfolio and to help them optimize the balance between State Water Project Water (SWP) and groundwater.

While WSC is unable to provide all details of our ongoing efforts on this project, we have been retained to provide economic and water quality analysis to support the Board's decision making process.

WSC is preparing a Microsoft Excel based water quality spreadsheet to quickly establish water quality targets for blending and treatment scenarios. We will follow that work with vendor outreach to determine costs and equipment to lay out constraints to develop a cost effective treatment and blending strategy.

#### Relevance to District

- Ground Water Quality Blending Analysis
- Water Quality Treatment Cost Optimization
- Conceptual Plan Development





# Nitrate Removal - Reverse Osmosis

City of Morro Bay

While at the City of Morro Bay WSC's proposed PM, Dylan Wade, managed the City's water, wastewater and capital projects.

During his time as the Utilities and Capital Project Manger, Dylan and the City of Morro Bay were faced with the difficult circumstance of degraded groundwater quality due to upstream agricultural use coupled with the SWP's lowest delivery years on record due to drought and judicial decree. This created a severe water shortage for the City, as its two historical sources of water were heavily impacted.

In order to overcome the challenge and to preserve adequate water supplies for the City, Dylan analyzed existing groundwater supplies, blending constraints, and other considerations to develop a long-term solution for the City's long-term water needs. Ultimately, Dylan and the City selected Reverse Osmosis for nitrate removal and protection against future sea water intrusion for the City's Morro Creek Groundwater basin wells.

Dylan then designed the treatment system and constructed the facility under a fast-tracked process using an emergency decree while securing grant funding for portions or the work. Finally, Dylan was able to secure a Low Threat Discharge permit for the disposal of the RO reject. The City now has full unrestricted use of its water from the contaminated groundwater basin.

#### Relevance to District

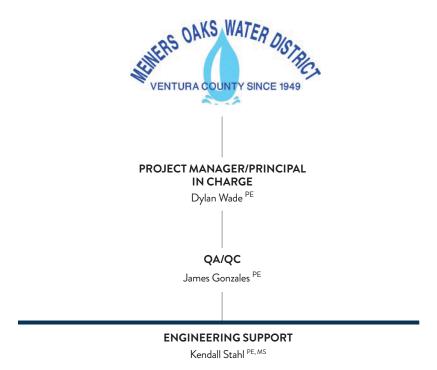
- Groundwater Nitrate Removal Treatment
- Complete Project Development
- Brine Disposal Permitting

#### Resumes and Project Team

# Meet Our Team

# Insightfully Led and Responsive

WSC has built a small team led by Project Manager, Dylan Wade. Dylan has successfully completed nitrate removal projects on the Central Coast before, including when he served as Utilities and Capital Project Manger for the City of Morro Bay. Dylan will lead a small, specialized team supported by James Gonzales, a skilled hydrogeologist experienced providing treatment evaluations involving nitrate contamination and other groundwater solutions for California municipalities. Dylan and James will work to bring the right-sized solution that is cost-effective and the best fit for the District and it's stakeholders.





### Our Commitment to You

WSC's team will be lead by our proposed Project Manager, Dylan Wade. Dylan has experience providing support for clients seeking to reduce nitrate contaminant levels in their drinking water supplies.

WSC affirms that the key individuals listed and identified in this section will be available during the proposed schedule. We are committed to providing qualified and responsive staff to the City during the duration of this contract.

Resumes for key staff are provided on the following pages.

# Dylan Wade, PE, CCM



#### Education

BS, Civil and Environmental Engineering, Brigham Young University, Provo, UT

AA, Liberal Arts, West Valley Community College, Cupertino, CA

**Professional Registrations** Professional Engineer - Civil, California, No. C64044

Certified Construction Manager – No. 5761

#### **Professional Experience**

Dylan Wade is a professional engineer with over 22 years of professional experience including projects involving nitrate removal, structural design, resident engineering, construction management, project delivery, and utility management. Dylan has served as the Owner Representative on many large, high-profile and multi-jurisdictional water resources projects including design and construction of intake facilities, water treatment plants, wastewater treatment plants, and major public works programs. These projects have been tremendous successes and some have won national recognition. He is responsible for managing numerous projects from initial planning to finished product. Dylan's extensive utility experience enables him to solve problems from an owner's perspective, while his construction background and expertise in contract management facilitates successful project delivery.

#### Representative Projects

Nitrate Removal – Reverse Osmosis, City of Morro Bay, Morro Bay, CA. Resident **Engineer.** While at the City of Morro Bay WSC's proposed PM, Dylan Wade, managed the City's water, wastewater, and capital projects. During his time as the Utilities and Capital Project Manager, Dylan and the City of Morro Bay were faced with the difficult circumstance of degraded groundwater quality due to upstream agricultural use coupled with the SWP's lowest delivery years on record due to drought and judicial decree. This created a severe water shortage for the City, as its two historical sources of water were heavily impacted. In order to overcome the challenge and to preserve adequate water supplies for the City, Dylan analyzed existing groundwater supplies, blending constraints, and other considerations to develop a long-term solution for the City's long-term water needs. Ultimately, Dylan and the City selected Reverse Osmosis for nitrate removal and protection against future sea water intrusion for the City's Morro Creek Groundwater basin wells. Dylan then designed the treatment system and constructed the facility under a fast-tracked process using an emergency decree while securing grant funding for portions or the work. Finally, Dylan was able to secure a Low Threat Discharge permit for the disposal of the RO reject. The City now has full unrestricted use of its water from the contaminated groundwater basin.

Conceptual Design and Feasibility Study, San Miguelito Mutual Water Company, Avila Beach, CA. Resident Engineer. Providing a review of water supply portfolio and to help them optimize the balance between State Water Project Water (SWP) and groundwater. Providing economic and water quality analysis to support the Board's decision making process. WSC is preparing a Microsoft Excel based water quality spreadsheet to quickly establish water quality targets for blending and treatment scenarios. We will follow that work with vendor outreach to determine costs and equipment to lay out constraints to develop a cost effective treatment and blending strategy.

**E.A. Fairbairn Water Treatment Plant (\$53.9M) and Intake (\$14M), City of Sacramento, CA. Construction Manager/Resident Engineer. Led** the E.A. Fairbairn Intake project, located in the American River, completed one year early and under the original budget. Designed the retrofit and expansion of the existing structure with fish screens, diffuser plates, and a seismic retrofit. Served as Owner's representative for this project from construction of the coffer dam slab to the fish screen dive inspection by NOAA and facility start-up.



Lopez Lake Water Treatment Plant Upgrade, San Luis Obispo County, CA. Resident Engineer. \$15 million upgrade to the WTP. Upgrades included owner-procured membrane filtration, chlorine dioxide generation equipment, and significant SCADA modifications on an aging operational plant.

Brackish Water Reverse Osmosis (BWRO) Treatment Plant Emergency Design Build Project, City of Morro Bay, CA. Project Manager. Owner's Project Manager and design engineer for the Owner Builder delivery of this upgrade and expansion to an existing desalination plant. Emergency design and retrofit of BWRO treatment trains for an existing desalination plant, including acquiring both CDPH and NPDES revised permits.

Well Condition Assessment, City of Pismo Beach, CA. Technical Advisor. Performing an evaluation of the City's two drinking water production wells, Well #5 and Well #23. The project includes an evaluation of specific capacity, well performance, plant efficiency, energy intensity trends, energy savings potential, condition of motor, pump, and electrical system, and improvement costs. WSC is coordinating with PG&E to obtain baseline data and subsidized pump testing. Results will be incorporated into a prioritized well capital improvement plan.

On-Call Engineering Services, City of Arroyo Grande, CA. Technical Advisor. Provided as-needed research and analysis support for engineering services for the City of Arroyo Grande. Research, development of materials, and coordination with other agencies regarding water supply and demand data to inform water resources management actions. Developed monthly Water Status Updates presented by City Staff to the City Council.

Chevron Tank Farm Service Extension Feasibility Study-Phase 1, San Miguelito Mutual Water Company, CA. Project Manager. Assessed the capacity of the San Miguelito Mutual Water Company's (SMMWC) water and wastewater systems under current and future conditions, including the inclusion of a proposed development at the Chevron Tank Farm. Developed water and wastewater base maps in GIS and conducting an analysis of demand, supply, capacity and storage for SMMWC's existing and projected infrastructure. Developed demand and loading estimates for the current SMMWC service area at build-out. Analyzed the projected water demand and wastewater loading from the proposed development and compared against existing SMMWC demand/loading factors and the capacity of the SMMWC's water and wastewater systems. Prepared a summary Technical Memorandum that describes the existing systems, proposed growth and recommendations completing future phases of the project.

CSA 10A Water Tanks, County of San Luis Obispo, Cayucos, CA. Technical Advisor. Providing QA/QC oversight for the design of a new 210,000-gallon reservoir, and the demolition and replacement of another same-sized reservoir. Tasks included reviewing site grading and piping configurations and layouts for the project.

Thousand Oaks Interconnection Projects, California American Water, Thousand Oaks, CA. Technical Advisor. Provided QA/QC review of 60% design plans and specifications for two interconnection projects in the City of Thousand Oaks. The Borchard Road project included the design for more than 300-LF of 8-inch mainline to connect CAW's system to an existing Calleguas Municipal Water District turnout connection. The Gainsborough Road project connected CAW's system to the City of Thousand Oaks' water system. WSC designed 220-LF of 8-inch pipeline and two buried vaults, one for a two-way mag meter and the other for a pressure regulating valve.



# James Gonzales, PG, CHG, MS

#### Education

BS, Geology, CA State University, San Francisco, CA MS, Environmental Engineering, CA State University, Fullerton,

**Professional Registrations**Professional Geologist, CA, No. 8918

Certified Hydrogeologist, CA, No. 984

Professional Affiliations
Groundwater Resources

Association of CA, Southern CA Branch

National Groundwater Association, Member

#### **Professional Experience**

James Gonzales is a professional geologist and certified hydrogeologist with over 14 years of diversified technical and project management experience with groundwater and environmental projects performed for numerous municipalities, state agencies, and private clients located throughout the western United States, Puerto Rico, and Mongolia. His recent project expertise includes nitrate removal projects, well siting assessments, preliminary and final municipal well designs, construction management and inspection for municipal supply and injection wells, contaminant assessment, aquifer testing, characterization of soil and groundwater, geologic and hydrogeologic data interpretation, and *in situ* groundwater remediation. James combines strong quantitative skills and a traditional geologic background with hydrogeologic expertise to deliver value to each project and client. He has interacted and coordinated with regulatory agencies such as the CA. Department of Toxic Substances Control, CA. Regional Water Quality Control Board, and the United States Environmental Protection Agency, and brings to the table effective communication skills to meet client objectives.

#### **Representative Projects**

Well 65 and 66 Nitrate Wellhead Treatment Evaluation, Eastern Municipal Water **District**, **Perris**, **CA**. **Hydrogeologist**. The program is a unique State Water Resources Control Board Proposition 1 Water Bond program for Eastern Municipal Water District (EMWD) located in Riverside County. The program is a long-term solution to improve groundwater quality in the Perris North Groundwater Basin which will not only address groundwater contamination, but it will also provide safe drinking water for approximately 15,000 households annually. The first two groundwater production wells of the program, Well 65 and Well 66, were drilled in early January 2021. As part of the activities related to Well 65 and Well 66 construction, assisted in the design and cost analysis for on-site treatment of groundwater impacted by nitrate (as N), perchlorate, and volatile organic compounds (VOCs) related to new well construction activities (e.g., zone testing, development, and hydraulic well testing). The wells will eventually be connected to a water treatment facility also being constructed as part of the program. Estimated the nitrate loading to the liquid phase pressure treatment vessels using nitrate as N maximum groundwater concentrations of 20 milligrams per liter (mg/L) and approximately a 650 gallon per minute flow rate to the treatment vessels. Ultimately, EMWD decided to convey the impacted groundwater to an alternate treatment facility for blending due to the cost prohibitive limitations related to on-site treatment.

PCE Plume Characterization, Proposition 1 Groundwater Grant Program, Round 2 Concept Proposal, City of San Luis Obispo, CA. Hydrogeologist. WSC developed a Proposition 1 Groundwater Grant Program conceptual planning proposal and final proposal to characterize the PCE plume impacting many of the City of San Luis Obispo's production wells. The scope of work includes conducting an RI/FS of the PCE plume in the Basin underlying the City to delineate the PCE plume and determine the best strategies for cleanup efforts. In addition, a groundwater model will be used to develop a greater understanding of the hydrogeologic characteristics of the Basin. This project effort will allow the City to more readily use its local groundwater supply to meet water supply needs enhance the resiliency of the City's water supply portfolio. Anticipated to assist with well siting, design, logging, and installation; model evaluation; and development of groundwater and surface water sampling plan.



Monitoring Well Network Design and Installation, Lockheed Martin Corporation, San Bernardino, CA. Hydrogeologist. Provided design and construction management services for the installation of 16 nested and clustered monitoring wells aligned parallel to the groundwater basin boundary to monitor containment of a large regional contaminant plume. Prior to field activities, provided well siting in residential and industrial neighborhoods in public right-a-ways, acquisition all requisite permits including national pollutant discharge elimination system (NPDES), city, county, and state permits, preparation of preliminary well design report, development of technical specifications for drilling and well construction, solicitation of drill bids, perform bid analysis and provide recommendation for contractor selection. Field implementation activities included full-time 24-hours per day on-site inspection oversight of the drilling contractor, analyzed down-hole logs including geophysical, caliper, deviation, and video survey logs, preparation of final well design based on geologic logging data, well construction, primary and secondary well development, waste management including solid waste disposal and NPDES discharge monitoring and reporting, and well equipping including installation of dedicated submersible pumps.

Recomputation of Ambient Water Quality for the Period 1999 to 2018, Basin Monitoring Program Task Force, Santa Ana Watershed Project Authority, Santa Ana River Watershed, CA. Hydrogeologist. Leading multi-firm team to determine ambient water quality in groundwater, assess compliance with groundwater quality objectives, and determine if assimilative capacity exists in groundwater management zones. The Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin requires the implementation of a watershed-wide total dissolved solids (TDS) and nitrogen groundwater monitoring program. The Basin Plan requires that the ambient water quality (AWQ) be computed every three years. Anticipated work includes (1) ambient water quality determinations, (2) preparation of groundwater quality and groundwater elevation contour maps in the management zones with requisite data, (3) computing the volume-weighted ambient TDS and nitrate-nitrogen concentrations using the data generated from the contour maps, (4) development of the interpretive tools which included a spatial analysis of groundwater quality change and a webbased tool, (5) perform temporal analysis of groundwater change comparing basin-scale trends to trends observed in key well locations, and (6) forward looking well attrition analysis.

North Pleasant Valley Desalter Project, City of Camarillo, CA. Hydrogeologist. Provided a full suite of hydrogeology services for the Pleasant Valley Basin Monitoring Wells Project for the City. These services included well siting, permitting, design of three (3) triple-nested monitoring wells, front end and well technical specifications, bidding support, participated as the City's representative in the field and throughout contract management, construction oversight and quality control, billing, and coordination with regional stakeholders including the Fox Canyon Groundwater Management Agency (FCGMA). The goal of the project was to expand the existing City and FCGMA groundwater monitoring network in order to track and monitor the leading edge of a salt plume that is entering the Pleasant Valley Groundwater Basin (PV Basin) and these wells will be used to assist in the operation of the Pleasant Valley Desalter which is currently under construction.

Central Coast Blue Regional Groundwater Sustainability Project, Multiple Agencies, Pismo Beach, CA. Hydrogeologist. Providing planning, design, and program management services for a variety of professional hydrogeology related projects including siting, technical specifications, design, and construction management for a series of injection wells and nested monitoring wells to develop a sustainable water supply and protect the Northern Cities Management Area of the Santa Maria Groundwater Basin. Initial activities include completing site selections, conceptual designs, preparing a work plan and technical specifications, and providing bid support and technical review during the drilling, construction, development, and testing for a test injection well and nested monitoring well. Additional injection wells and monitoring wells will be constructed based on the results of the test injection well.



# Kendall Stahl, PE, MS

#### Education

MS, Civil and Environmental Engineering, University of Adelaide

BS, Environmental Engineering, California Polytechnic State University, San Luis Obispo

AA, Mathematics – Physics, Allan Hancock College

**Professional Registrations** Professional Engineer, Civil, CA No. 91431

#### **Professional Experience**

Kendall Stahl has experience focused on environmental engineering, water and wastewater treatment design, and supporting nitrate removal projects. As a Professional Civil Engineer, she has experience in hydraulic analysis, pump station design and analysis, wastewater and wastewater treatment and water master planning. Kendall's graduate studies focused on water security analysis, water demand management optimization, with an emphasis on characterizing the drivers of household water demand.

#### Representative Projects

Perchloroethene (PCE) Plume Delineation and Groundwater Development Program, City of San Luis Obispo, CA. Project Engineer. Developed a Proposition 1 Groundwater Grant Application that successfully secured \$2 million to fund the development of a groundwater program that will allow the City to address contamination and improve the reliability of its drinking water supply.

North Pleasant Valley Desalter Facility, City of Camarillo, CA. Funding Support. Assisted with preparing a U.S Bureau of Reclamation (USBR) grant funding application through the WaterSMART Desalination Projects Under the WIIN Act for the design and construction of the City's North Pleasant Valley (NPV) Desalter Facility. Ms Stahl authored sections of the WIIN Act Desalination Program application for the NPV Desalter Facility which was successful in being awarded \$11,443,367 for the project.

Central Coast Blue, City of Pismo Beach, CA. Funding Support. Assisted with preparing a U.S. Bureau of Reclamation (USBR) grant funding application through the WaterSMART Title XVI Water Reclamation and Reuse Program Under the WIIN Act. Ms Stahl authored sections of the WIIN Act Water Reclamation and Reuse Program application for Central Coast Blue which was successful in being awarded \$796,094 in grant funding for the project.

Alta Mesa Plant Site GAC Treatment Design, Golden State Water Company, Nipomo, CA. Project Design Engineer. Prepared design documents for wellhead treatment facilities to treat 1,2,3 TCP at the Alta Mesa Well for a combined production capacity of 600 gpm. Completed the GAC filter system preliminary engineering and prepared the final design and construction bid documents. Construction documents for the GAC filter system included project civil, mechanical and instrumentation sheets, specifications, and opinion of probable construction cost. Additional services included bid and construction phase support.

On-Call Services: Groundwater Modeling and Hwy 101 Well Equipping Project, City of San Luis Obispo, CA. Project Design Engineer. Developed a preliminary design to equip the existing well on the Water Resource Recovery Facility site near Highway 101 and evaluated treatment alternatives and beneficial uses for the well. Provided as-needed support the City in funding opportunities for the Project.

Los Osos Basin Management Committee, Los Osos, CA. Executive Director Staff Support. Provides support to the executive Director for the Los Osos Groundwater Basin, Basin Management Committee (BMC), including assistance with BMC administration and facilitation, managing the work of BMC consultants, including completion of the Annual Monitoring Program and other water resource initiatives, and oversees the financial operation of the BMC. Functions as an extension of staff and is responsible for the timely completion of the Court-mandated annual reporting and represents the BMC to other entities, including DWR, RWQCB, and other agencies.



Northern Cities Staff Extension Services Fiscal Years 16-17, 17-18, 18-19, 19-20, and 20-21, Engineering Services. Cities of Arroyo Grande, Pismo Beach, Grover Beach, and Oceano, CA. Project Engineer. Provided as-needed engineering services for the City of Arroyo Grande, City of Grover Beach, City of Pismo Beach, and the Oceano Community Services District. Coordinated monthly meetings of the Northern Cities Management Area Technical Group. Interfaced with local and statewide regulatory agencies as an authorized agent of the Northern Cities. Tasks include preparing monthly agendas, updating the monthly groundwater production report and database, reviewing their Annual Report, developing a comparison summary of Annual Reports from the NCMA and NMMA, drafting a Case Management Conference Statement, preparing GIS exhibits and excel graphics for the NCMA Case Management Conference.

Northern Cities Management Agreement Update 2020, Cities of Arroyo Grande, Pismo Beach, Grover Beach, and Oceano, CA. Project Engineer. Provided professional services to assist the Northern Cities Management Area Technical Group (City of Arroyo Grande, City of Pismo Beach, City of Grover Beach, and Oceano Community Services District) with updating their 2002 Management Agreement. Assisted in the Northern Cities Technical Group in updating the agreement and develop an adaptive groundwater management strategy based on hydrogeologic conditions.

**2017** Engineering Report on Water Master Plan, Morro Rock Mutual Water Company, Cayucos, CA. Project Engineer. Performing an update to the Mutual Water Company's Water Master Plan. Creating and calibrating an all-pipes, spatially allocated demand hydraulic model of the Mutual Water Company's water distribution system using Bentley's WaterGEMS software. Utilizing the hydraulic model to evaluate capacity limitations for current and future buildout scenarios and opportunities to optimize operations. Developing an updated CIP project list to prepare the City for budget planning.

Central Coast Blue, City of Pismo Beach, CA. Engineering Support. Providing Program Management, Preliminary Design, Funding, and Environmental Document Support services for the Indirect Potable Reuse project that will recover secondary effluent from the City of Pismo Beach and the South San Luis Obispo County Sanitation District's wastewater treatment plants, a resource currently discharged to the Pacific Ocean. The advanced treatment facility will use microfiltration or ultrafiltration, reverse osmosis, and ultraviolet radiation and advanced oxidation process before being injected into the Santa Maria Groundwater Basin to supplement groundwater supplies and protect the basin from seawater intrusion. Construction is expected to begin in 2019.

Water Resources Analysis Technical Memorandum, Avila Beach Community Services District, CA. Staff Engineer. Prepare draft technical memorandum for the Avila Beach Community Services District. Evaluation and assembly of water resource reliability data, supply and demand characterization, and conditional dry and average supply and demand comparison information.

**GSA Formation, City of Arroyo Grande, CA. Staff Engineer.** Support the City in preparing a Groundwater Sustainability Agency (GSA) formation notification for the California Department of Water Resources for the intent to undertake sustainable groundwater management in accordance with the Sustainable Groundwater Management Act. The GSA formation notification included the preparation of boundary maps, stakeholder lists, and support coordination with adjacent local agencies forming a GSA.





Last year, as in years past, your tap water meets all EPA and State drinking water health standards. Meiners Oaks Water District has delivered safe drinking water that did not violate any maximum contaminant levels. This report details about where your water comes from, what it contains, and how it compares to State standards.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800- 426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material. Water can also pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural, livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic

chemicals, which are byproducts of industrial processes and petroleum production, and can, also come from gas stations, urban storm water runoff, and septic systems.

- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.
- Disposing of unused, unwanted, and expired medications once it was common practice to flush these <u>medications</u> (also known as <u>pharmaceuticals</u> down the toilet. Your doctor or pharmacist may have directed you to do this. We now know that these substances are bad for our environment - the ground, water, and the air around us. Please return all unused medications to your pharmacist.
- Department of Health and EPA regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

For more information, please look to (www.nodrugsdownthedrain .org)
To ensure that tap water is safe to drink, the USEPA and the California Department of Public Health (CDPH) prescribe regulations that limit the number of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

#### **Sources of your Water**

Your water comes from four District wells drilled 100 to 300 feet into underground aquifers. Two groundwater wells are located at Lomita and Rice, and two wells three miles north of Meiners Oaks. We also have two 4" connections to receive surface waterfrom Lake Casitas, when needed. Customers may receive Lake Casitas surface water if our wells need repair or cannot keep up with system demand. A blend of surface and groundwater is delivered on those occasions.

Water purchased from Casitas is treated by using chloramines: this type of treatment utilizes chlorine mixed with a small amount of ammonia. People on dialysis should ensure that they are using the proper filtration. If you have a fish pond or aquarium, the added ammonia will kill your fish if not properly treated by removing the ammonia content.

#### **Water Conservation**

Meiners Oaks Water District would like to remind its customers that a <u>Stage 3 water shortage</u> continues, and encourages every customer to stay diligent with their conservation practices. Lake Casitas currently measures at 37.1% of its capacity. Conserving water will help reduce the strain on our wells and lower the amount of water that would need to be purchased from Lake Casitas. It is a precious natural resource that we cannot afford to waste. So please keep in mind to use positive shutoff valves when washing your car or watering your plants or garden. Use low-flow

shower heads and faucets. Low flow toilets are also a big water saver. If you cannot afford low flow fixtures or any of the many other water-saving devices available to you, as a customer of Meiners Oaks Water District, you are eligible for rebates from Casitas Municipal Water District as a Meiners Oaks Water District customer. Another way to save water is to use smart controllers for your irrigation valves. They areavailable through Casitas Municipal Water rebate program and most irrigation supply houses. Let Casitas Water know that you are one of our customers and present them a water bill from our District and they will take it from there. Casitas now offers rebates for getting rid of your lawns. Please contact Casitas MWD at 649-2251 for more information.

Once Lake Casitas level reaches 30% of capacity, the threshold for Stage 4 will be reached; this stage will require a mandatory 40% reduction in use.

Meiners Oaks Water District continues to work on the following projects to expand/support our water portfolio and lessen the amount of water we would have to supplement from Lake Casitas:

- Drilling a new well off of Rice Rd (Completed)
- Exploring options of an optional 2000 foot deep well, that would be used in critical times to supplement our existing sources in place of purchasing LakeCasitas water
- Nitrate removal and blending at our well W-8
- Lining wells 1 and 2 with stainless steel liners and equipping them with variablefrequency drives for longer life and durability (Completed)

The Meiners Oaks Water Board of Directors passed Resolution 20180417-1 supporting Casitas MWD in their pursuit of bringing State water into the Ojai Valley.

For more information about saving water and doing your part go to <a href="www.bewaterwise.com">www.bewaterwise.com</a> or <a href="www.meinersoakswater.org">www.meinersoakswater.org</a> or <a href="www.casitaswater.org">www.casitaswater.org</a>

## 2020 Consumer Confidence Report

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2020.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alquien que lo entienda bien.

**Type of water source(s) in use:** According to SWRCB records, the Sources Well 01 and Well 02 are Groundwater under the influence of Surface Water. This Assessment was done using the Default Groundwater System Method. According to SWRCB records, the Sources Well 04, and Well 07 are Groundwater. This Assessment was done using the Default Groundwater System Method.

Your water comes from 4 source(s): Well 01, Well 02, Well 04 and Well 07

**Opportunities for public participation in decisions that affect drinking water quality:** Regularly scheduled water board or city/county council meetings are held at 202 W. El Roblar every 3rd Tuesday of each month at 6:00 pm. Virtual meetings during COVID-19.

For more information about this report, or any questions relating to your drinking water, please call (805) 646-2114 and ask for Justin Martinez or email <u>justin@meinersoakswater.com</u> or visit our website at <u>www.meinersoakswater.org</u>.

#### TERMS USED IN THIS REPORT

**Maximum Contaminant Level (MCL):** The highest level of contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for the contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Secondary Drinking Water Standards (SDWS):** MCLs for the contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**ND:** not detectable at testing limit

mg/L: milligrams per liter or parts per million (ppm)

**ug/L:** micrograms per liter or parts per billion (ppb)

NTU: Nephelometric Turbidity Units

**umhos/cm:** micro mhos per centimeter

**The sources of drinking water:** (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

#### Contaminants that may be present in source water include:

- *Microbial contaminants,* such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants,* such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides,* that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products if industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

**In order to ensure that tap water is safe to drink,** the USEPA and the State Water Resource Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

**Tables 1, 2, 3, 4, 5, 6 and 7 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent.** The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Water Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

Any violation of MCL, AL or MRDL is highlighted. Additional information regarding the violation is provided later in this report.

Table 1 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER								
Lead and Copper (complete if lead or copper detected in last sample set)	Sample Date	No. of Samples	90th percentile level detected	No. Sites Exceeding AL	AL	PHG	Typical Sources of Contaminant	
Copper (mg/L)	(2020)	20	0.95	1	1.3	.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	

Table 2 - SAMPLING RESULTS FOR SODIUM AND HARDNESS							
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Sources of Contaminant	
Sodium (mg/L)	(2020)	58	55 - 61	none	none	Salt present in the water and is generally naturally occurring	
Hardness (mg/L)	(2020)	505	474 - 554	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring	

Table 3 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD								
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Sources of Contaminant		
Arsenic (ug/L)	(2020)	ND	ND - 2	10	0.004	Erosion of natural deposits; runoff from orchards, glass and electronics production wastes		
Fluoride (mg/L)	(2020)	0.5	0.4 - 0.6	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.		

Nitrate as N (mg/L)	(2020)	5	ND - 6.9	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite as N (mg/L)	(2020)	3.3	ND - 6.9	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ug/L)	(2020)	8	6 - 11	50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots(feed additive)

Table 4 - DETI	Table 4 - DETECTION OF CONTAMINANTS WITH A <u>SECONDARY</u> DRINKING WATER STANDARD								
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Sources of Contaminant			
Chloride (mg/L)	(2020)	41	24 - 61	500	n/a	Runoff/leaching from natural deposits; seawater influence			
Iron (ug/L)	(2020)	ND	ND - 120	300	n/a	Leaching from natural deposits; Industrial wastes			
Specific Conductance (umhos/cm)	(2020)	1188	1120 - 1220	1600	n/a	Substances that form ions when in water; seawater influence			
Sulfate (mg/L)	(2020)	295	236 - 373	500	n/a	Runoff/leaching from natural deposits; industrial wastes			
Total Dissolved Solids (mg/L)	(2020)	780	740 - 850	1000	n/a	Runoff/leaching from natural deposits			
Turbidity (NTU)	(2020)	0.1	ND - 0.2	5	n/a	Soil runoff			

Table 5 - DETECTION OF UNREGULATED CONTAMINANTS							
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	Notification Level	Typical Sources of Contaminant		
Boron (mg/L)	(2020)	0.7	0.6 - 0.7	1	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats.		

Table 6 - ADDITIONAL DETECTIONS								
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	Notification Level	Typical Sources of Contaminant			
Calcium (mg/L)	(2020)	139	129 - 151	n/a	n/a			
Magnesium (mg/L)	(2020)	38	36 - 43	n/a	n/a			
pH (units)	(2020)	7.1	n/a	n/a	n/a			
Alkalinity (mg/L)	(2020)	240	210 - 270	n/a	n/a			
Aggressiveness Index	(2020)	12	11.9 - 12.1	n/a	n/a			
Langelier Index	(2020)	0.11	0.04 - 0.2	n/a	n/a			

Table	Table 7 - DETECTION OF DISINFECTANT/DISINFECTANT BYPRODUCT RULE								
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL (MRDL)	PHG (MCLG)	Violation	Typical Sources of Contaminant		
Total Trihalomethanes (TTHMs) (ug/L)	(2020)	22	1 - 55	80	n/a	No	By-product of drinking water disinfection		
Chlorine (mg/L)	(2020)	2.57	.52 - 3.4	4.0	4.0	No	Drinking water disinfectant added for treatment.		
Haloacetic Acids (five) (ug/L)	(2020)	13.75	ND - 44	60	n/a	No	By-product of drinking water disinfection		

## Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts if some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead Specific Language for Community Water Systems: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with the service lines and home plumbing. *Meiners Oaks Water District* is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <a href="http://www.epa.gov/lead">http://www.epa.gov/lead</a>.

# Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

VIOLATION O	VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT								
Violation	Explanation	Duration	Actions Taken To Correct the Violation	Health Effects Language					
Copper*				Copper is an essential nutrient, but some people who use water containing copper in excess of the action level over a relatively short amount of time may experience gastrointesteinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.					

\*About your Copper: The Copper Action Level of 1.3 mg/L is based on the 90<sup>th</sup> percentile of sample results. Of the 20 samples collected in 2020, only 1 site exceeded 1.3 mg/L and the 90<sup>th</sup> percentile was under 1.3 mg/L at 0.95 mg/L.

**About your Nitrate as N:** Nitrate above 5 mg/L as nitrogen (50 percent of the MCL), but below 10 mg/L as nitrogen (the MCL); Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

# 2020 Consumer Confidence Report

#### **Drinking Water Assessment Information**

#### Assessment Information

A source water assessment was conducted for the WELL 01, WELL 02, WELL 04, and WELL 07 of the MEINERS OAKS CWD water system in March, 2001.

- Well 01 is considered most vulnerable to the following activities not associated with any detected contaminants: Agricultural Drainage Septic systems low density [<1/acre]
- Well 02 is considered most vulnerable to the following activities not associated with any detected contaminants: Agricultural Drainage
- Well 04 is considered most vulnerable to the following activities not associated with any detected contaminants: Agricultural Drainage
- Well 07 is considered most vulnerable to the following activities not associated with any detected contaminants:
   Agricultural Drainage
   Sewer collection systems
   Wells Agricultural/ Irrigation

#### **Acquiring Information**

A copy of the complete assessment may be viewed at: SWRCB Division of Drinking Water 1180 Eugenia Place Suite 200 Carpinteria, CA 93013

You may request a summary of the assessment be sent to you by contacting: Jeff Densmore District Engineer 805 566 1326



# **District Summary/Update**

- Casitas Lake Level: 37.1%
- Purchased Water: The District began purchasing water on 9-28-2020 and returned to producing our water on February 1st.
- **Meiners Rd Tank**: The new antenna tower has been received. Unfortunatly the base and no climb sections are on backorder until mid July. Oilfield Electric has also ing=formed us that the SCADA panel is also on backorder. As soon as these items come in we can schedule the work accordingly.
- Well #8 Site: The site has been cleaned up and graded
- District Work:
  - Badger Meter/Conversion info meeting
  - Well #8 prelog sampling reinstated; nitrates and general mineral
  - o Ranchitos Well prelog sampling started; nitrates and general mineral
  - Set up FGL username and password; All employees
  - Working on SOP for Genorator hook-ups; Levi
  - Well #8 site clean up
  - Water main break, 1136 S. Rice Rd
  - Re-Paving of Meiners Rd/Zone 2 lateral; asphalt has failed (pending)
  - Service Leak 250 El Camino
  - Service Leak 312 S. Padre Juan
  - o Dig Alerts and Service Orders. Re-mark old dig alerts still pending work
- **Wells**: Wells 1, 2, 4, 7 are all on-line and meeting customer demands. Wells 1 & 2 have manually been slowed down, VFD, and are being monitored closely by field staff as production and water levels are dropping. Construction of Well House for Well #1 is almost completed. Start monthly prelog sampling at Well #8 and Ranchitos Well for nitrates and general mineral
- Potential Chlorine Gas Shortage notice from DDW 6/11/21
- Training: SCBA training (Pending)
- Staff: Temporary Water Utility Helper position; applications closed, scheduleing interviews

#### Scheduled/Unscheduled Work

001104141104110411041104110411041							
Type of	<u>Cause</u>	<u>Date</u>	<u>Leak</u>	<u>Contractor</u>	Amount \$		
<u>Repair</u>			<u>Location</u>				
Well #8	Site Clean-up	5/25/2021	N/A	Evans	\$7,780.00		
				Excavating			
Main Leak	Miss Marked	6/3/2021	1136 S. Rice	Sam Hill	\$9,430.45		
	Line		Rd				
Service Leak	Poor Bedding	6/8/2021	312 S. Padre	Staff	N/A		
			Juan				
Service Leak	Improper	6/9/2021	250 EI	Staff	N/A		
	Installation		Camino				

# **Running Rainfall Totals**

WY - 2019-20 18.60" of rain Matilija Canyon

WY - 2019-20 16.45" of rain Meiners Oaks Fire Station

WY - 2020-21 5.82" of rain Matilija Canyon

WY – 2020-21 4.51" of rain Meiners Oaks Fire Station

#### **Well Drilled Dates & Depths**

Well Brilled Bates & Beptilo							
Well	Date Drilled	Drill Depth					
Well #1	1969	65' (Rehab 2018)					
Well #2	1969	110' (Rehab 2018)					
Well #4	1969	240' (Non-Op)					
Well #4 (New)	2018	165'					
Well #7	1961	156'					
Well #8	1968	144' (Non-Op)					

# **Current Well Levels and Specific Capacity**

WELL #1	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
STATIC (ft)	OFF	OFF	31.52	27	34.74	36.1						
RUNNING (ft)	OFF	OFF	OFF	41	43.24	38.3						
DRAW DOWN (ft)	7.7	OFF	OFF	14	8.5	2.2						
Gallons Per Minute (GPM)			OFF	191	187	105						
Specific Capacity (gal/ft DD)	13.0	OFF	OFF	13.86	22	47.73						
WELL #2	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
STATIC (ft)	35.5	28.9	31.23	37	37.4	37						
RUNNING (ft)	OFF	OFF	OFF	49.9	47.4	42.4						
DRAW DOWN (ft)	OFF	OFF	OFF	12.9	10	5.4						
Gallons Per Minute (GPM)			OFF	126	127	82						
Specific Capacity (gal/ft DD)	OFF	OFF	OFF	9.84	12.7	15.19						
WELL #4	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
STATIC (ft)	48.9	28.9	45.70	47.9	52.40	57.6						
RUNNING (ft)	97.0	76.8	77.35	80.3	79.90	81.7						
DRAW DOWN (ft)	48.1	35.9	31.65	32.4	27.5	24.1						
Gallons Per Minute (GPM)			375	388	375	390						
Specific Capacity (gal/ft DD)	7.3	10.1	11.84	11.98	13.63	16.18						
WELL #7	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
STATIC (ft)	53.9	46.9	50.60	54	54.70	60.3						
RUNNING (ft)	62.7	50.1	53.15	58	60.40	64.1						
DRAW DOWN (ft)	8.8	3.2	2.55	4	5.7	3.8						
Gallons Per Minute (GPM)			292	337	278	280						
Specific Capacity (gal/ft DD)	32.9	92.5	114.51	84.25	48.77	73.8						
WELL #8	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
STATIC (ft)	OFF	OFF	OFF	67.6	65.7	68.3						
RUNNING (ft)	OFF	OFF	OFF	OFF	OFF	OFF						
DRAW DOWN (ft)	OFF	OFF	OFF	OFF	OFF	OFF						
Gallons Per Minute (GPM)	OFF	OFF	OFF	OFF	OFF	OFF						
Specific Capacity (gal/ft DD)	OFF	OFF	OFF	OFF	OFF	OFF						

Water Pumped, Sold, Purchased & Water Sales

<u>water Fullipeu, Solu, Furchaseu &amp; Water Sales</u>							
MONTH	PUMPED (AF)	SOLD (AF)	PURCHASED (AF)	WATER SALES			
			, ,	(\$)			
JAN	0	40.35	40.35	\$55,869.54			
FEB	59.13	43.26	0	\$45,273.85			
MAR	45.88	37.35	0	\$38,245.86			
APR	54.26	52.05	0	\$52,993.98			
MAY	55.31	53.77	0	\$50,789.57			
JUN							
JUL							
AUG							
SEP							
OCT							
NOV							
DEC							
TOTAL 2021	214.58	226.78	40.35	\$243,172.80			
TOTAL 2020	485.71	635.47	197.26	\$657,912.06			

## **Reserve Funds**

* Balance at the County of Ventura	\$ 1,402,405.97
Total Taxes	<u>\$ 1283.10</u>
Total Interest from reserve account#	\$ 0.00

# **Fiscal Year Total Revenues**

July 1st – April 30th	2020	\$ 1,581,297.47
July 1st – April 30th	2021	\$ 1,715,125.47

# **Bank Balances**

* LAIF Balance	\$ 229,731.39
Transferred from L.A.I.F. to General	\$ 0.00
(#) Quarterly Interest from LAIF	\$ 0.00
* Money Market (Mechanics Bank)	\$ 7,621.94
Amount Transferred to Mechanics from County this month	\$ 0.00
Amount Transferred to General Fund from Money Market	\$ 0.00
Monthly Interest received from Money Market	<u>\$</u> .12
General Fund Balance	\$ 26,495.10
Trust Fund Balance	<u>\$ 17,314.68</u>
* Capital Improvement Fund	\$ 14,198.89
(#) Quarterly Interest from Capital Account	
Total Interest accrued	\$ .23

# Capital Improvement Projects for 2020-2021 Budgeted capital funds \$ 446,000,000 FY 2020-2021

- 1. Well 4 Development (Completed)
- 2. Engineer design report for the treatment plant (100% In Process)
- 3. Replace 6 inch main for Zone 2 (Completed)
- 4. El Sol and Lomita Tie-in (Engineering to start this month)
- 5. Automate Casitas connection at Fairview and Hwy 33 (Tabled until next year)
- 6. Two generator purchase and electrical panel upgrades (Complete)
- 7. Stave replacement at Meiners road tank (Complete)
- 8. New Meter Reading Software (In Process)
- 9. New Service Truck (Complete)



## **Board Secretary Report**

#### **June 2021**

#### 1. Administrative

- 2020 Consumer Confidence Report published online June 11, hardcopies will be included in June billing statements.
- 2. **Financial** (any items not covered in separate Financials Report)
  - a. Audit for FY19-20 currently engaged in work with C. Fanning.
  - b. Accounts Receivable Customer account balance aging during COVID-19 moratorium on disconnections due to non-payment. In March 2021 we mailed individual notices to each delinquent customer, in April 2021 door hangers were placed at each delinquent service location to prompt contacting the office to setup payment arrangements. As of June 10, there are 22 acounts with balances over 4 months delinquent. There has been progress in customer contact and payment arrangements. Updated door hangers will be placed before June 30. No flow restrictors have been implemented at this time. The CA Executive Order & Utility Commission have not yet specifically addressed when disconnections for non-payment will be allowed.

Class	#Customers	\$ @>3 mo	\$ @>4 mo	Notes
Residential	20 ≥4 mos	\$1186	\$8093	10 of the 20 RES accounts have not made a payment in ≥4 months.
Commercial	0	\$0	\$0	
Agriculture	2	\$214	\$1008	(1) Last pmt 6/2021 of \$500 (2) Last pmt 6/2021 of \$400.00

#### 3. Projects

- a. Allocation Program –No update.
- b. Staff Procedures Ad-Hoc Committee No update.
- c. Grants: Nitrate Removal Progress Report #3 due by July 10, 2021.

#### 4. <u>Billing/Customer Service</u>

- a. Summary of Billing Statements & Customer Service Orders
- b. Casitas Connection turned off 2/2/2021.

Month	#Total Service Orders	# Account Owner Changes	Monthly Customer Bill Total	Monthly Casitas Surcharge	Over- Allocation \$ (drought sur)	Other Conservation Penalties
Jan 20	88	5	\$103,517.04	\$0	\$3,060.00	\$0
Feb 20	75	11	\$102,457.21	\$0	\$1,919.00	\$0
Mar 20	109	11	\$104,012.24	\$0	\$1,849.00	\$0
Apr 20	78	9	\$ 94,817.80	\$0	\$1,106.00	\$0
May 20	112	2	\$124,586.74	\$0	\$5,220.00	\$0
Jun 20	201	7	\$144,471.57	\$0	\$9,483.00	\$0
Jul 20	246	27	\$144,736.42	\$0	\$8,937.00	\$0
Aug 20	147	18	\$148,635.97	\$0	\$10,417.00	\$0
Sep 20	210	18	\$164,667.04	\$0	\$14,472.00	\$0
Oct 20	93	12	\$172,773.27	\$23,868.19	\$9,958.00	\$0
Nov 20	79	7	\$172,514.41	\$37,554.48	\$6,779.00	\$0
Dec 20	74	5	\$130,327.05	\$0	\$5,631.00	\$0
Jan 21	89	12	\$115,479.25	\$0	\$2,730.00	\$0
Feb 21	75	13	\$108,605.39	\$0	\$2,460.00	\$0
Mar 21	73	16	\$108,985.68	\$0	\$1,936.00	\$0
Apr 21	125	9	\$127,363.90	\$0	\$5,084.00	\$0
May 21	134	11	\$129,394.85	\$0	\$5,525.00	\$0

Note: May 2020 over-allocation fees increase attributed to very high Ag consumption, (1) account over 500 units, and (2) accounts both over 850 units each. These reads were verified, and meters did not indicate leaks. Jun-Aug meter readings indicated significant abnormally high consumption, several customer leaks, and increased irrigation overall. Two water conservation warning letters were sent to customers; Field Operators documented irrigation during mid-day hours – next observed violation will result in fine. Sep 50% of SO's were reread for high consumption, 25% were to replace broken meter box lids.

## **Board of Directors**

Board Member	Position	Term Ends	Term Type
Michel Etchart	President	2022	Long Term (Re-elected 2018)
James Kentosh	Vice President	2022	Long Term (Re-elected 2018)
Larry Harrold	Director	2022* leaving 6/15/21	Long Term (Re-elected 2018)
Diana Engle	Director	2024	Long Term (Re-elected 2020)
Christian Oakland	Director	2024	Long Term (Elected 2020)

#### 5. Complaints & Compliments

**Recommended Actions:** Receive an update from the Board Secretary concerning miscellaneous matters and District correspondence. Provide feedback to staff.

Attachments: None.