



MEETING MINUTES

January 9, 2024

In-Person Meeting

Attendees:

Name	Company	Email Address
Mark Guadagni	Delta Diablo	markg@deltadiablo.org
James Kohne	W&C	jkohne@woodardcurran.com
Sukhpreet Mann	Dublin San Ramon Services District	mann@dsrsd.com
Adam Brown	Hazen and Sawyer	abrown@hazenandsawyer.com
Kevin Randeni	Dublin San Ramon Services District	randeni@dsrsd.com
Nancy McWilliams	Solano Irrigation District	nmcwilliams@sidwater.org
Darren Garza	EBMUD	Darren.garza@ebmud.com
Joshua Viray	Carollo Engineers	jviray@carollo.com
Alan Velasquez	ACWD	alan.velasquez@acwd.com
Molly Wedel	EBMUD	mwedel@ebmud.com
Eric Biland	Freyer & Laureta	biland@freyerlaureta.com
Ioana Taropa	Freyer & Laureta	taropa@freyerlaureta.com
David Harrold	Fairfield-Suisun Sewer District	dharrold@fssd.com
Doug Hollowell	Fairfield-Suisun Sewer District	dhollowell@fssd.com
Kyle Cheung	City of Sacramento - Department of Utilities	kcheung@cityofsacramento.org
Stephanie Wong	Brown and Caldwell	swong@brwnald.com
Nealsen Cayanan	Central San	ncayanan@centralsan.org
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Alexandra Watson	HydroScience Engineers	awatson@hydroscience.com
Karla Castro	Dublin San Ramon Services District	kcastro@dsrsd.com
Parker Ewing	Central San	pewing@centralsan.org
Jasmine Cuffee	West Valley Construction	jcuffee@wvcc.com
Tay Nguyen	City of Hayward	tay.nguyen@hayward-ca.gov
Yinlun Xu	West Valley Construction	yxu@wvcc.com
Joseph Camaddo	West Valley Construction Company	jcamaddo@wvcc.com

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Eric Yao	HDR	Yuan.Yao@hdrinc.com
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Joe Heavin	Shannon & Wilson	joseph.heavin@shanwil.com
Bob Allen	Trident Environmental	ballen@tridenteng.com
Jazmine Ramos	VW Housen and Associates	jramos@housenasociates.com
Kris Wall	B&K Valves	
Anthony Razo	B&K Valves	
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Carina Gonzalez	Brown and Caldwell	cgonzalez@brwncald.com
Travis Bohan	Mark Thomas	tbohan@markthomas.com

Announcements and General Business:

Nancy opened the meeting and conducted the group’s business.

1. Nancy announced the seminar and share fliers about the event. Nancy also reminded the group to review the membership list on the flier to ensure it’s accurate.
2. Nancy reminded people about speaker slots for monthly meetings available for June and August 2024 through the end of the year.
3. Nancy spoke about the upcoming annual seminar in February 2024.
4. Upcoming conference dates:
 - a. 2024 PUG Annual Sharing Technologies Seminar (Feb 8)
 - b. CWEA Annual Conference (AC24) April 9-12, 2024, Sacramento, CA
 - c. NASTT No-Dig Show, April 14-18. 2024, Providence, RI
 - d. AWWA Annual Conference (ACE 24) June 10-13, 2024, Anaheim, CA
 - e. ASCE UESI Pipelines Conference, July 27-31, 2024 Calgary, Canada

Adam Brown provided a recap of the December meeting minutes.

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Alexandra Watson provided the financial summary report. The current total in the organization account as of December 31, 2023 was \$85,871.21.

Announcements:

1. Nancy mentioned we're still looking for an afternoon moderator for the seminar in February.
2. Nancy mentioned that PUG board elections will be coming up in June, and reminded people that Board members receive an annual stipend paid by PUG to attend conferences.

Project Discussions:

1. EBMUD has a bid opening tomorrow
 - a. Re-coating the Mokolumne Aqueduct
 - b. 20 contractors were on the bid walk
 - c. \$19M engineer's estimate
 - d. Blast and 3-part epoxy of outside of pipe through wetlands (exposed pipe)

2023 HWEA WESTT Conference Re-cap by Nancy McWilliams:

Highlights from the presentation include:

1. Conference was Nov 7 thru 9, 2023
 - a. Day 1: training day (new installations and rehab)
 - b. Day 2: two tracks; project presentations
 - c. Day 3: all about City/County of Honolulu collections systems maintenance
 - d. Nancy shared about the venues for each day/event
 - e. Primary topic: cesspools
 - i. 88,000 cesspools in the state, more than any other state
 - ii. Contaminating groundwater
 - iii. Causing algae that suffocate coral
 - iv. Oahu banned new large capacity cesspools in 1992
 - v. State of Hawaii banned all new cesspools in 2016
 - vi. State says all cesspools need to be converted by the year 2050
 - vii. Many challenges to converting all the existing cesspools
 - f. Maintenance staff presented about their work, their system, and how they approach their operations
 - g. Dowsett Highlands Project Recap
 - i. New sewer line
 1. 11,630 of 18" to 24"
 2. 9,300 LF 12" to 18"
 - ii. Goals
 1. Attenuate flow (2M gallons)
 2. Reduce I&I
 3. Evaluated multiple alignments/depths/methods
 4. Chose option of 25' deep and CIPP or replacement
 - iii. Construction

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1. Design included several borings to map geology
 2. Used guide boring method where soils were displaceable and open-cut where they were not
 3. Contractor probed using a drill rig and air hammer every 5 feet to test soils prior to bores
 4. Bores were generally 200 to 300 feet long each
 5. \$74M for about 20,000 LF
- h. Specialty Inspector for Trenchless Recap
- i. Qualified subject matter expert
 - ii. Present onsite at least 2 days prior to trenchless work
 - iii. Not telling contractor how to do their work
 - iv. Relays information to owner
 - v. Assist owner in recommendations
 - vi. 5 case studies
 1. 365' freeway crossing
 - a. Saved 7 days at \$120k/day
 2. 4,200' freeway crossing
 - a. Saved 5 days at \$75k/day
 3. 500' intersection crossing
 - a. Saved \$300k claim
 4. 400' creek crossing
 - a. Saved 2 days at \$100k/day
 5. 1000' crossing landmark trees and road
 - a. Delay estimated at \$25k/day
- i. Other Interesting things
- i. City/County of Honolulu encompasses the entire island of Oahu
 - ii. "blue rock" basalt can cost \$1,200 to \$1,500 to excavate through
 - iii. Contractor has to get an excavation permit to protect native artifacts which can take 12-18 month even though cultural resource outreach has been completed
 - iv. All sewer agencies appear to be hiring

Presentation:

"Know Your Valves," Presenter: Kris Wall (B&K Valves).

Overview:

The presentation provided an overview of the different types of valves used in the water industry and why exercising and assessing valves is important. Knowing how valves operate saves time and money in emergency response and other critical situations.

Highlights from the presentation include:

1. Valve considerations
 - a. Features, maintenance/design, resources
2. The Lingo
 - a. Reviewed several terms such as

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- i. Actuators
 - ii. Valve flow coefficient
 - iii. Differential pressure
- 3. Mentioned AWWA standards
- 4. Valve applications
 - a. Service conditions
 - i. Media
 - ii. Pressure
 - iii. Flow rates
 - iv. Installation location
 - b. Check, on/off, throttling
 - c. Operator requirements
 - d. Maintenance and serviceability
- 5. Air Valves (AWWA C512; specify lead-free; NSF-61 certified)
 - a. Prevents a vacuum
 - b. Allows large volumes of air to escape during filling
 - c. Vents accumulated air
 - d. Types
 - i. Air & vacuum valve
 - ii. Pressure air release
 - iii. Combination Air valve (does both air/vacuum and air release functions)
 - e. Reviewed different considerations for water versus wastewater
- 6. Check Valves
 - a. Prevents reverse flow
 - b. Helps keep pipeline full
 - c. Minimize water hammer and prevent surge
 - d. Most are automatic and controlled by the flow itself
 - e. Swing Check valves
 - i. Standard for wastewater applications
 - ii. AWWA C508
 - iii. Getting repair kits are difficult to obtain (maybe better options out there)
 - iv. Beware of lay-length differences
 - v. Consider Slam prevention options
 - f. Resilient Hinge Check Valves
 - i. Growing in popularity
 - ii. Easier to repair/service than swing check valves
 - iii. Less moving parts than swing check valves
 - iv. 50-yr warranty on the disc
- 7. Cast iron versus ductile iron
 - a. Cast iron required very thick castings
 - b. Ductile doesn't crack to break; it stretches to break
 - c. Ductile can be thinner/lighter; recommended
 - d. Cast iron is easier to make

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8. Fusion bond epoxy not suitable for heated water
 9. Elastomers are the achilles heal of the valves
 - a. Metal seated valves will give the longest longevity even if you get some leaks
 - b. When elastomers fail, valve it “toast”
 10. AIS / Buy American Requirements: lots of manufacturers won’t meet the requirements
 11. Isolation Valves
 - a. Butterfly
 - i. On/off; not for modulating/throttling
 - ii. High head loss
 - iii. Cost more than gate valves
 - iv. Seat location (30” an up)
 1. Seat in body or seat on disc
 - a. Seat in body tends to have more failures
 - i. SoCal agencies are requiring visual observation of on-site pressure test
 - b. Seat on disc can be repaired in 90 min
 - b. Gate Valves
 - i. On/off operation
 - ii. Low head loss
 - iii. Multi-turn valve
 - iv. “resilient” not suitable for wastewater application since rubber can corrode due to wastewater
 - v. Larger valves should be installed on their side
 - c. Forcemain applications
 - i. Gate valves traditionally used
 - ii. Plug valves becoming more popular
 - iii. Plug valves
 1. Can throttle with this valve
 2. Eccentric allows for superior performance in wastewater applications with minimal wear
 3. Design to perform superior to gate valves
 4. Port design (rectangular versus round)
 - a. Rectangular port tends to be better than a round port for various reasons
 5. Installation
 - a. Ensure direct pressure pushes on closed valve side
 - b. Ensure debris settles on top of plug for vertical piping or below the plug on a horizontal pipe.
12. Actuators
 - a. Don’t use design pressure; use the operating line pressure
 - b. Need to know available power
 - c. What’s the function? Enclosure rating?

Next Meeting:

There will be no general meeting in February. Instead, we will have our 32nd Annual Sharing Technologies Seminar. Please see our website for more information.

The next general meeting is scheduled for Tuesday, March 12th, 2024 and will include a presentation by Lars Stenstedt with V&A Consulting Engineers regarding data science processes and best practices for collection systems. The March meeting will be held in-person at Brown and Caldwell's offices located at 201 North Civic Drive, Suite 300, Walnut Creek, CA 94596.

Please call Adam Brown at 831-521-9623 or email pugnorcal@gmail.com for additional information on this month's meeting minutes.