



MEETING MINUTES
September 12, 2023
 In-Person Meeting

Attendees:

Name	Company	Email Address
James Kohne	W&C	jkohne@woodardcurran.com
Victoria Belli	Harris & Associates	victoria.belli@weareharris.com
Mike Scholz	JCM Industries, Inc.	mscholz@jcmind.com
Ashley Stalf	EBMUD	ashley.stalf@ebmud.com
Vincent Marano	CPM Pipelines	vince@cpmpipelines.com
Adam Brown	Hazen and Sawyer	abrown@hazenandsawyer.com
Lance Chamberlin	Psomas	lance.chamberlin@psomas.com
Kyle Gourley	Carollo Engineers	kgourley@carollo.com
Bob Allen	Trident Environmental	ballen@tridenteng.com
Kyle Esquer	SID	kesquer@sidwater.org
Nancy McWilliams	SID	nmcwilliams@sidwater.org
Sukhpreet Mann	DSRSD	mann@dsrsd.com
Dru Nielson	Delve Underground	nielson@delveunderground.com
Doug Moe	Isco Industries	doug.moe@isco-pipe.com
Iris Yuen	CDM Smith, Inc.	yuence@cdmsmith.com
Jason Fitch	CCCSD	jfitch@centralsan.org
Molly Wedel	EBMUD	molly.wedel@ebmud.com
Diego Soto Lopez	Central San	dsotolopez@centralsan.org
Rosie Delgado	CCCSD	rdelgado@centralsan.org
Karla Castro	DSRSD	kcastro@dsrsd.com
Aaron Terrell	ACWD	Aaron.Terrell@acwd.com
Darren Garza	EBMUD	darren.garza@ebmud.com
Eshan Tuteja	EBMUD	etuteja@ebmud.com
Karl Ono	Fairfield-Suisun Sewer District	kono@fssd.com
Melvin Aquino	Fairfield-Suisun Sewer District	maquino@fssd.com
Andrew Baile	Union Sanitary District	andrewb@unionsanitary.ca.gov
Mike Garcia	Thompson Pipe Group	michael.garcia@thompsonpipegroup.com
Fidel Salamanca	Harris & Associates	fidel.salamanca@weareharris.com
Tien Ho	ACWD	tien.ho@acwd.com
Mark Guadagni	Delta Diablo	markg@deltadiablo.org
Stephen Cardiel	Delta Diablo	stephenc@deltadiablo.org
Mohammed Masoud	West County WW Dist	mmasoud@wccd.org

Minutes by Adam Brown, Hazen and Sawyer
 Secretary, Nor Cal PUG

Page 1 of 5

***The information disseminated on behalf of industry individuals/organizations via PUG is not necessarily the opinion of PUG, nor has PUG verified comprehensiveness or validity of the information. ***

Taylor Fagan	Harris & Associates	taylor.fagan@weareharris.com
Alexandra Watson	Hydroscience	awatson@hydroscience.com
Nohami Sanchez	Central San	nsanchez@centralsan.org
Dorothy Bechler	Central San	dbechler@centralsan.org
Ben Wright	Black and Veatch	wrightb@bv.com
Eric Biland	F&L	biland@freyerlaureta.com
Davina Carboni	Brown and Caldwell	dcarboni@brwncald.com
Dustin LaVallee	EBMUD	Dustin.lavallee@ebmud.com
Gean Na	ACPA	gna@concretepipe.org
Cindy Preuss	CDM Smith	preusscl@cdmsmith.com
Travis Bohan	Mark Thomas	tbohan@markthomas.com
Robert Maneclay	Central San	rmaneclay@centralsan.org
Jomel Bautista	Kennedy Jenks	jomelbautista@kennedyjenks.com

Announcements and General Business:

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

1. Memberships are due for next Fiscal year, and reminded the group to review whether or not their organization has paid their dues.
2. The annual seminar in February and that the Call for Abstracts is now out. Abstracts are due September 15th.
3. There are a couple HDPE webinars that are coming up next week (9/19 and 9/20). Nancy provided flyers.
4. We still have one speaker opening left in December. Openings are now being scheduled for March 2024 and beyond.
5. Upcoming conference dates:
 - a. WEFTEC, Chicago, Sept 30 – Oct 4
 - b. PUG training event, October 12; at Brown and Caldwell conference room in Walnut Creek; Nancy announced that space is limited. Training will consist of 2 half-day courses (trenchless installations and trenchless rehabilitation). CEUs can be provided.
 - c. AWWA CA-NV Conference Oct 23-26
 - d. WESTT Annual Conference, Hawaii, November 7-9 (one training day, one day-and-a-half conference)
 - e. 2024 PUG Annual Sharing Technologies Seminar (Feb 8)
6. Gean Na announced a plant tour for concrete pipe on 9/28/23 (talk to Gean for more info)
7. AWWA ACE Conference in 2024 will be in Anaheim, CA. Deadline for abstracts has been extended to the end of September.
8. Local CWEA golf tournament on 9/22/23

Adam Brown provided a recap of the August meeting minutes.

Alexandra Watson provided the financial summary report. The current total in the organization account as of August 31, 2023 was \$81,964.55.

Minutes by Adam Brown, Hazen and Sawyer
Secretary, Nor Cal PUG

***The information disseminated on behalf of industry individuals/organizations via PUG is not necessarily the opinion of PUG, nor has PUG verified comprehensiveness or validity of the information. ***

Nancy brought various flyers of information for distribution to the group (i.e. PUG training info, seminar abstracts).

Project Discussions:

1. None

Additional Material:

Bob Allen provided a recap of the 2023 UESI Pipelines Conference in San Antonio, TX.

Presentation:

“USD Twin Force Main Relocation,” Presenters: Mike Lagonowski (Maguire and Hester), Matt Finley (Maguire and Hester), and Mike Yuraca (Tanner Pacific).

Overview:

This presentation provided a “boots on the ground” look at the installation challenges of fused HDPE using the recent USD Twin Force Main project as a case study.

Highlights from the presentation include:

1. Project involved relocating an existing set of twin sewer force mains.
2. Project overview
 - a. Summary
 - i. 4,750 LF of trenching
 - ii. 9,500 LF of new 36” HDPE FM
 - iii. (18) 72” manholes
 - iv. 550 LF of sheet pile shoring
 - v. 3 shored excavations with dewatering
 - vi. One trenchless section
 - vii. Treatment system for contaminated ground water
 - viii. (8) tie-ins with flexible coupling adapters (Romac 400) and bypass of the existing FM
 - ix. Abandonment of existing RCP pipes
 - b. Project was built to relocate existing force mains away from a new subdivision being constructed by Taylor Morrison
 - c. Tanner Pacific served as the CM; USD was the client
 - d. Project was funded by Taylor Morrison
 - e. Coleman Engineer was the designer of the project
 - f. Coordination with Alameda County Water District was required related to nearby aquifer
 - g. Best-value bid was awarded to Maguire and Hester
 - h. Used DR 21 HDPE pipe
3. Installation Challenges of Fused HDPE pipe

Minutes by Adam Brown, Hazen and Sawyer
Secretary, Nor Cal PUG

Page 3 of 5

- a. Thermal expansion considerations
 - i. Temperature greatly affects pipe length
 - ii. Pipe can expand up to 10" throughout the day
 - iii. Contractor needs to take readings of actual pipe temperature and compare ambient temperature and expected temperature change
- b. Trench fusion
 - i. Used approx. 7.5 minute heat cycles
 - ii. Used approx. 18 minute fusion time
 - iii. Then needed to allow joint to cool down before pulling pipe onsite
 - iv. CM was able to receive near real-time reports from data logger
- c. Moving and place fused pipe
 - i. Pipe segments could weigh up to 45,000 lbs
 - ii. Pipe was initially placed on sand bags
 - iii. Pipe would experience thermal expansion and then fall off sand bag
 - iv. Weight of pipe was challenging to get re-positioned, keep on sand bags
 - v. CDF backfill was used (150 psi)
- d. HDPE Flanged Fittings and Torque Cycles
 - i. Stainless steel tees were cast into concrete manhole bases
 - ii. 36 bolts used on flange adapters
 - iii. Torqued bolts to 25%, 50%, 75%, and 100% with 24-hr wait times in between each cycle (based on HDPE manufacturer recommendation to allow joint to settle)
 - iv. Constructed concrete trench dams every 400 feet
 - 1. No real groundwater control necessary; more for anchoring pipes into place
 - 2. Areas of CDF backfill did not include any trench dams.
- e. Creating Water Tight Manholes
 - i. Phase 1 included HDPE tees at access points
 - 1. Tees ended up expanding during hydrostatic testing
 - 2. Created spider cracks along concrete manhole base
 - ii. Phase 2 moved to stainless steel tees in concrete to avoid cracking during testing
 - iii. Pressure testing was conducted at 75-80 psi in Phase 1 prior to splitting
 - 1. Was way more than they needed
 - 2. Operating pressure was only around 42 psi
 - iv. Pressure testing only went to 50 psi in Phase 2
- f. Bypass System
 - i. Had to meet the off-peak seasonal flows
 - ii. Bypass system could not be used during the winter
 - iii. Curtain grouting used to reduce infiltration and groundwater intrusion
 - iv. No pumps needed for bypass system (used District pumps to convey flows)
- g. Dewatering
 - i. Byproducts of making PVC pipe were found in the groundwater

- ii. Used dewatering wells, weir tanks, filter system, GAC filters, and holding tank to process/treat groundwater
 - iii. Groundwater was tested for contaminants prior to discharging into District's system or being off-hauled (if hazardous)
 - h. Site water table was much higher at critical tie-in points
 - i. Dewatering and groundwater treatment was a major project cost
4. Total Project Cost
- a. Phases 1 and 2 each ended up around \$8M.
 - b. Originally \$5.5M
 - c. About \$1000/ft or more for total construction cost
5. Challenges related to groundwater and contaminants were known prior to starting construction. Different land owners had different responsibilities related to the treatment and handling of groundwater and soils.

Thank you, Maguire and Hester, and Tanner Pacific for a great presentation and contribution to PUG's September monthly meeting. Please review the slides on the PUG website for more information.

Next Meeting:

There is no general meeting scheduled for October. Instead, PUG will host a training session on Thursday, October 12th.

The next general meeting is scheduled for Tuesday, November 14, 2023 and will include a presentation by Rowena Patenaude and Brooks Ryan with Westlake Pipe and Fittings, titled "PVC Pipe and Fittings."

Both the training session and the November 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.