NORTHERN CALIFORNIA PIPE USERS GROUP

Sharing Technologies Together

June 2024 Monthly Meeting

Date: Tuesday, June 11th, 2024
Time: 11:00 a.m. – 1:00 p.m.
Meeting Location:
Brown and Caldwell
201 N. Civic Drive, Ste 300
Walnut Creek, CA 94596
925-937-9010

Meeting Agenda Items

11:00 a.m. Business Meeting
- → **Announcements**
- → **May Meeting Recap**
- → **Financial Update**
- → **Board Nominee Introductions**
- → **Open Forum: Project Discussions, Industry News, Questions, etc.**

11:30 a.m. Lunch
12:00 p.m. Presentation Begins
1:00 p.m. Adjournment

Click Here to RSVP

Presentation Topic

"Sewer bypass 101 for Specification Writers"

Presenter: Tony de Bellis and Garret Rehs, Rain For Rent

The presentation will provide an overview of basic information and design considerations that should be provided in project plans and specifications from a contractor's point of view. A few case studies will be provided to illustrate the concepts presented.

Meeting Questions

Contact: Adam Brown, Hazen and Sawyer
Phone: 831-521-9623
Email: PUGnorcal@gmail.com
Web: www.norcalpug.com

Upcoming PUG Events

July 9, 2024
Hot Taps and Line Stops (Steve Helm, Tap Master)

August 13, 2024
Geotechnical Engineering for Pipelines (Su Soe and Patrick Lam, Delve Underground)

September 10, 2024
Perfect Pipe: Lined Concrete Pipe (Alena Mikhayolva, Geneva Pipe and Precast)

MEETING MINUTES
May 14, 2024
In-Person Meeting

Attendees:

Name	Company	Email Address
Sasha Mestetsky	CCCSD	smestets@centralsan.org
Jon Marshall	Carollo	jpmarshall@carollo.com
Jane Hou	Mott MacDonald	Jane.Hou@mottmac.com
Landon Lochrie	CVSan	landon@cvsan.org
Nick Jacobs	East Bay MUD	nicholas.jacobs@ebmud.com
Donovan Szarka	EBMUD	donovan.szarka@ebmud.com
Nancy McWilliams	Solano Irrigation District	nmcwilliams@sidwater.org
Sarah La Vallee	CCWD	slavallee@ccwater.com
Sarah Rahimi	EBMUD	sarah.rahimi-ardabily@ebmud.com
ashley stalf	EBMUD	ashley.stalf@ebmud.com
Sean Maurel	CCWD	smaurel@ccwater.com
Molly Wedel	EBMUD	mwedel@ebmud.com
Nohemi Sanchez	CCCSD	nsanchez@centralsan.org
Victoria	Harris & Associates	victoria.orduno@weareharris.com
Adam Brown	Hazen and Sawyer	abrown@hazenandsawyer.com
Fidel Salamanca	Harris & Associates	fidel.salamanca@weareharris.com
Kevin Randeni	CCCSD	krandeni@centralsan.org
Kyle Gourley	Carollo Engineers	kgourley@carollo.com
Joshua Viray	Carollo Engineers	jviray@carollo.com
Jill Shankel	Carollo Engineer	jshankel@carollo.com
Carina Gonzalez	Brown and Caldwell	CGonzalez1@BrwnCald.com
Amelia Taylor	Pullman SST, Inc	ataylor@pullman-services.com
Cindy Preuss	CDM Smith	preusscl@cdmsmith.com
Luella Gabriel	Harris & Associates	luella.gabriel@weareharris.com
Ligaya Kohagura	HDR	ligaya.kohagura@hdrinc.com
Salvador Navarro	City of Hayward	Salvador.navarro@hayward-ca.gov

Tay Nguyen	City of Hayward	tay.nguyen@hayward-ca.gov
Runqi Yu	City of Hayward	runqi.yu@hayward-ca.gov
Jason Fitch	CCCSD	jfitch@centralsan.org
Oscar Aguilar	City of Hayward	oscar.aguilar@hayward-ca.gov
Jordyn Doyle	MNS Engineers Inc	jfernandez@mnsengineers.com
nicole kwan	carollo engineers	nkwan@carollo.com
Darren Garza	EBMUD	darren.garza@ebmud.com
Vanessa C	EBMUD	vanessa.chi@ebmud.com
Dustin La Vallee	EBMUD	dustin.lavallee@ebmud.com
Alexandra Watson	HydroScience Engineers	awatson@hydroscience.com
Diego Soto Lopez	CCCSD	dsotolopez@centralsan.org
Glen Hungerbuhler	Mission Clay Products, LLC	GlenH@MissionClay.com
Nathaniel Johnson Lennon	CVSan	nathaniel@cvsan.org
Raymond	City of Sacramento	rkong@cityofsacramento.org
Joe Heavin	Shannon & Wilson	joseph.heavin@shanwil.com
James Kohne	Woodard and Curran	jkohne@woodardcurran.com
Bob Allen	Trident Engineering	ballen@tridenteng.com
Rosa Delgato	CCCSD	rdelgato@centralsan.org
Lisa Zhou	CCCSD	lzhou@centralsan.org
Nohemi Sanchez	CCCSD	nsanchez@centralsan.org
Anika Young	American DIP	awyong@american-usa.com
Gean Na	ACPA	gna@concretepipe.org
Jomel Bautista	Kennedy Jenks	jomelbautista@kennedyjenks.com
Steve Nilforoushan	Rinker / ACPA	Neama.nilforoushan@rinkerpipe.com
Duy Tran	City of Sacramento	dtran@cityofsacramento.org
Brett Grant	City of Sacramento	bgrant@cityofsacramento.org
Claudia Garcia	City of Hayward	Claudia
Travis Bohan	Mark Thomas	tbohan@markthomas.com

Announcements and General Business:

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

1. Nancy reminded people about PUG membership renewals coming up in July.
    a. $400 per agency

    b. One membership per agency (unlimited attendees)
2. Nancy announced that monthly speaker slots are booked through February 2025 but we will always entertain requests to schedule presentations into the future.
3. Nancy reminded the group to always RSVP to attend monthly meetings, and please attend if you RSVP.
4. Nancy made an announcement about upcoming Board elections in June
5. Upcoming conference dates:
    a. AWWA Annual Conference (ACE 24) June 10-13, 2024, Anaheim, CA
    b. ASCE UESI Pipelines Conference, July 27-31, 2024 Calgary, Canada
    c. Breakthrough in Tunneling, September 9-11, Denver, Colorado
    d. WEFTEC, New Orleans - October 5-9
    e. AWWA Cal/NV Fall Conference Oct 21-24, Reno, NV
    f. PUG Training Day – October 17 (topic TBD)

Announcements:

1. AWWA Cal/NV YP is interested in finding speakers for the group.
2. PUG Board elections for 2 openings are happening now (nominations close 5pm, 5/24)

Adam Brown provided a recap of the April meeting minutes.

Alexandra Watson provided the financial summary report. The current total in the organization account as of April 30, 2024 was $89,379.60.

Project Discussions:

1. ASTM standards that govern testing for flexural and testing for CIPP liner do not appear to be tailored to a pressure application for a glass-reinforced liner. Research shows that standards and testing may need to be updated/improved to account for this. Diameter in question is approximately 42”.

Presentation:

“The Revolution in Pipeline Installation,” Presenter: Amster Howard.

Overview:

The presentation included a discussion of the significant improvements in the construction of buried pipe. The AWWA Manual M55 provides the best summary of these changes and serves as the best reference. Example topics include uncompacted bedding, an uncompacted zone over the top of the pipe, and uniform terminology.

Highlights from the presentation include:

1. The presentation is largely related to AWWA M55 2020 version
2. All changes to M55 apply to all flexible pipe; M23 is for PVC pipe and has some changes as well
3. Explained how various industry references don’t currently agree on terminology
4. ASTM D2774: Table 8-1 replaces old table 8-3 (soil classifications)

a. Should use Class 2 for embedment of all pipe types
b. Has been adopted in various references, except DIP and Steel

5. Discussed the deflection of plastic pipe
    a. Reviewed soil moduli and E' values
    b. Stronger material means deeper burial depths allowed
    c. ASTM D4253 is very hard to do accurately; not advised to use
        i. ASTM D7382 is a better method and uses a vibratory hammer
    d. Very difficult to do a proper nuclear gauge test
6. Basic engineering versus engineered installation
    a. Basic
        i. 24" or less
        ii. DR equal to or less than 21
        iii. 10' or less of cover
        iv. No live or surcharge load for cover 6 feet or less
        v. Ground water below the pipe
        vi. Excavated soil can be used as embedment and backfill
        vii. Embedment doesn't need to be backfilled
        viii. Backfill over pipe does not need to be compacted
        ix. Foundation not expansive clay, collapsing soil, or landfill
        x. Foundation, embedment max particle size limit
        xi. Native trench walls are stable and stiff
    b. Engineered installation should be used when these conditions aren't met
        i. Uncompacted bedding of gravel or crushed rock
            1. Helps avoid point loads at the bottom of the pipe
            2. Helps transfer loads to the compacted material at the haunches
            3. Tested at USBR in Denver
        ii. 0.7D embedment
            1. Avoids damage to pipe by not compacting above 0.7D
            2. Can't obtain 95% compaction over a flexible pipe that flexes
            3. If necessary under a roadway, use crushed rock or material that can be vibrated into place, not mechanical compactors
        iii. E' prime updated values
        iv. Uncompacted padding layer above the pipe
7. Trench Width
    a. Recommended to leave the trench width up to the contractor.
    b. It's up to the contractor to determine what trench width is required to achieve the required compaction
8. Flowable Fill
    a. Should be around 50 to 100 psi
    b. 3'x6' cylinder test (don't use a slump test)
    c. Can use native soil
9. Migration of soils
    a. Geofabric used to separate soils to prevent soil migration

    b. Migration may weaken the support soils
10. Compaction
    a. ASTM D653: recommends 95% (D 698)
        i. 95% is for “percent of maximum density”
        ii. D 698 is the test for maximum density
    b. Offered up short-hand methods for clearly stating compaction requirements related to the different ASTM standards
11. Amster’s Book = Pipeline Installation 2.0, AmsterHoward.com
12. Amster also offers an online training for pipeline installation for inspectors

Questions:

13. All changes talked about today are referenced in the M55 manual?
    a. Yes.
14. How long should CLSM set before you backfill?
    a. ASTM standard uses a “kelly ball” test to determine how long it takes to set up
    b. Depends on the mix/design/materials (native materials take longer)
    c. Typical waiting time is about a day, but could be as quick as 15 min
    d. Recycled concrete is a great material for making flowable fill
15. How do you mitigate pipe floating in flowable fill?
    a. Need to calculate at what point the pipe will float and then install the CLSM in lifts.
    b. Other options include physically holding the pipe in place during CLSM installation and setting

Next Meeting:

The next general meeting is scheduled for Tuesday, June 11th, 2024 and will include a presentation by Tony de Bellis and Garrett Rehs with Rain for Rent titled “Sewer Bypass 101 for Specification Writers”. The presentation will provide an overview of basic information that should be in any given project specification from a contractor’s point of view. The June 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.