



Pure Water North City Phase 1 Construction Projects
Clairemont Working Group Meeting #1 Summary

City of San Diego North City Water Reclamation Plant
Monday, June 25, 2018, 4:30 p.m. - 8 p.m.

This document is not intended to capture verbatim comments from the meeting or function as meeting minutes. It is a summary of the questions posed by the Working Group members and the answers provided by City staff and consultants. The questions and answers are unattributed.

Working Group Members Present

Jeff Baughn, Resident
David Curtis, Resident
Michael Dwyer, Resident
Ed Elliott, Resident
Stephanie Fullerton, Diocese of San Diego
Kelly Johnson, Clairemont Town Square
Michael Lambert, Coldwell Banker Residential Brokerage
Jonathan Layton, Resident/UTC Aerospace Systems
Connor Munson, Brady Engineering
Morteza Rahimi, Clairemont Town Council

Working Group Members Absent

Juliet Hong, Resident

Project Team Members Present

Amy Dorman, City of San Diego
Megan Drummy, Katz & Associates
Brent Eidson, City of San Diego
Dylan Grise, Katz & Associates
Natalia Hentschel, Katz & Associates
Steve Lindsay, City of San Diego
Joe Long, AECOM
Sean McCarty, Consultant, City of San Diego

Other Attendees

Daniel Manley, Council District 6
Marc Schaefer, Council District 2

Welcome and Introduction

Brent Eidson welcomed the Clairemont Working Group (WG) to their first meeting with a brief overview of what to expect and thanked them for their commitment, participation and feedback. Natalia Hentschel then introduced her role as facilitator, emphasizing that the

WG's mission and principles were carefully developed to ensure the best use of everyone's time, and went over the meeting's agenda and objectives. Members of the WG and the project team introduced themselves.

WG members received binders containing the Mission and Principles of Participation, WG member roster, contact information for their WG liaison, meeting schedule, ground rules, the meeting agenda, PowerPoint presentation, maps of the Morena alignment through Clairemont, the current construction contracts specifications, and fact sheets on the Phase 1 Projects.

To view project and meeting materials, including new binder contents, visit the Pure Water San Diego website at www.purewatersd.org/Phase1.

Working Group Overview

N. Hentschel began the meeting by providing an overview of the WG's Mission, Principles of Participation, ground rules, binder materials, and the WG meeting schedule. She reminded the WG that these meetings are not about the project's alignment, but that their local voice is essential to mitigating issues related to the project, because they know things the project team does not know about their community. The following are comments or questions from the WG members:

WG Member: When will we receive the agendas for each meeting?

Facilitator: The agenda for each meeting will be distributed to members by email the Friday before the upcoming meeting.

WG Member: I have a question about boundaries—this is the Clairemont Working Group, and we are tasked to report back to our constituencies. Part of my constituency is in the Morena/Bay Park area; do I have the opportunity to interface with them?

Facilitator: Yes, absolutely. The project team that you see here is present and available at all the Working Group meetings. If there is any information that you want to bring forward to share with other groups or that you would like shared, we are happy to do so.

Pure Water Program: North City Phase 1 Projects

B. Eidson provided a presentation on the Pure Water San Diego Program and Phase 1 Projects that included information on the City of San Diego's existing water supply system, water supply challenges, efforts to diversify water supply sources, the need and goals of the Pure Water Program, testing completed to date at the Pure Water Demonstration Facility, and the planned phasing and locations of the Pure Water facilities through 2035.

Additionally, the presentation provided an overview of other Phase 1 Projects, including the North City Water Reclamation Expansion, North City Pure Water Facility, North City Pure Water Pump Station and Pipeline, and the North City Renewable Energy project. The following are comments or questions from the WG members:

WG Member: What is the cost of desalination versus potable reuse?

Project Team: Desalination costs approximately \$2300 per acre foot, while potable reuse is estimated to cost \$1700-\$1900 per acre foot. Once the facilities are constructed and we know the actual costs we will be able to refine those numbers for potable reuse, but that is a reasonable estimate at this point.

WG Member: It's sad to see we don't use enough recycled water. The City of San Diego does not use recycled water for Mission Bay Park, for example. How can we increase the use of recycled water? Are there any long-term plans to increase its use? Can the recycled water system be expanded to include private homes, agriculture or industry?

Project Team: Right now, we have a distribution system at the North City Water Reclamation Plant that provides water to the northern part of the City for irrigation and industrial uses. With the cost close to \$2 million for each mile of pipeline it doesn't make financial sense for us to try to further expand that system. However, when we get to Phase 2 of the Pure Water Program we know we need to construct a brand-new reclamation plant since the reach of this distribution system is limited. So, as part of that investigation there may be opportunities for us, since we are building new reclamation plants then, to have a smaller distribution center for some of those larger users. It hasn't been confirmed that we are doing that, but it is something we are looking into. We are also doing a little bit of recycled water use expansion with Caltrans along the 805. They are expanding their use of purple pipe and moving as far south along the freeway as they can with it.

WG Member: So are you saying that some feasibility studies [for the expansion of the recycled water system] have been done to consider these other uses?

Project Team: Not for other uses—we already know the uses for recycled water. They are not formal feasibility studies, but we are investigating where it may make sense financially and responsibly to be able to provide recycled water in other parts of the city.

WG Member: There are lots of water uses for agriculture in this county. Have you studied that? How about for personal use?

Project Team: No, that is too far away. Most of our agriculture is in San Pasqual Valley or farther north, and we don't have the distribution system or the capacity to move the water farther north. Some other agencies like Escondido do, but it wouldn't be the City that would be able to provide that for them.

We have a filling station in Scripps Ranch where residents can get recycled water for their own uses. Recycled water is also used on construction sites to help with dust and for car washes.

The State of California requires significant permitting and education before recycled water can be provided for personal use and you must make sure there are no cross connections. For this reason, we have found that it doesn't make financial sense for small individual homes to be connected, but we do have some large individual homes who are large water users that have taken that step, but that is a State of California requirement, not ours.

Overview of the Morena Pipeline Alignment

Joe Long provided an overview of the Morena pipeline alignment with particular focus on the Clairemont section of the alignment. He went over the 11 construction topics that will be discussed with the WG over the course of three/four meetings and encouraged the members to keep the list of topics in mind as the presentation progressed. The topics include project coordination to address potential disruptions, street restoration, air quality/odor/noise, staging areas and parking, environmental monitoring, traffic control and signage, specific stakeholder access needs, outreach/communication and notifications, work restrictions and construction phasing, working days and hours, and construction monitoring. J. Long then highlighted the two construction topics that would be discussed later in the evening: 1) coordination between projects and 2) street restoration. The following are comments or questions from the WG members:

WG Member: Going from Morena to Denver to Clairemont Drive there are a lot of right-angle turns. Can these pipes make these right-angle turns?

Project Team: Yes. Everywhere you see a sharp right-angle turn is actually a custom-made fitting that is designed in pieces and then brought out pre-fabricated. These custom right-angle pieces will be welded to the straight sections. The right-angle pieces are strong and can take the larger pressure forces as the pipe goes around that corner.

WG Member: Why would you go through the middle part of Clairemont with these pipelines?

Project Team: As noted in our Mission, the alignment is not in the scope of discussion of this group.

WG Member: You need to communicate to people in our community about this project, and regarding items including how the pipes withstand earthquakes, the uphill and downhill portions, traffic, our families' wellbeing and other things that cause us anxiety. How do we know that the steel pipes are safe now and in the future?

Project Team: We modeled all the hydraulics that are part of this system. We performed computer modeling and hand calculations to fact check all the numbers. We came up with a minimum thickness for the pipes and then we added to it. On average, we have a 3/8 inch steel pipe. The highest normal operating pressure is 202 pounds per square inch (psi) and the highest pressure in the overall system is located at the Morena Pump Station and is 262 psi. Clairemont is a low-pressure area; the higher-pressure area is closer to the Morena Pump Station. We actually added materials to the pipes in the high-pressure areas because we did not want to have a pipe burst. In addition, we have coated the pipe on both the inside and the outside to protect from corrosion. We have gone well beyond what is considered the standard practice for operation of this pipeline. We expect this pipeline to have a lifespan of a minimum of 50 years, but it should far exceed that timeframe.

WG Member: What about the potential for displacement during an earthquake?

Project Team: We chose a fully welded steel pipe all the way down. Each joint is welded as part of this, so when we look at a compression type of slip joint, the pipe would have the ability to buckle or bend in the case of an earthquake disruption. The pipe would no longer be useful but it would not break. If the pipe were to stretch it could not be pulled apart. The force it would take to pull apart the pipe would be around 60,000 psi, well beyond what an

earthquake could put onto it. The soil material around the pipe would start to displace before the pipe itself ever would fail. We went through all of the analysis for earthquakes at the beginning of design, and this is one of the more robust design aspects on this particular project.

WG Member: What are the materials for the force main and the brine line?

Project Team: The force main (the portion going northbound) is all steel all the way. There are no material changes with the force main. The brine line is using a combination of materials. In the low-pressure zone across Clairemont we are using a high-density polyethylene pipe, but once we start to go down the hill, it transitions to steel pipe the rest of the way. There is also steel pipe for the brine line at all the canyon crossings.

WG Member: For the cross section of the trench, are there other conduits?

Project Team: There will be one additional conduit and that conduit is for our supervisory control and data acquisition (SCADA) system—that is where we will be putting a fiber optic line. This is a communication line that will help operate the Morena Pump Station through controls at the North City Plant. We will have a fully connected system all the way from the Morena Pump Station to the North City Plant to the Miramar Water Treatment Plant.

WG Member: So, every now and then there would be air vents?

Project Team: Yes, we do have vent control on the pipeline. There are air vac release systems so as the pressures drop in the pipe, if the water level in the pipe drops below the top of the pipe it will actually draw air into the system. As water pressure comes back on, it will purge that air back out. Each one of those locations of the air vac release valves goes through a carbon canister. They are underground and in a vault. The pipeline system is a completely closed system. Anything purged out is redirected back to the sewer system. More information about this can be found in the Morena Pump Station and Pipelines FAQ on the website.

WG Member: What is the timeframe/duration for the work?

Project Team: We anticipate about 75 feet of pipeline in the ground per day. There is some forefront construction that will go on—there are some conflicting utilities that need to be addressed first. There will be moving of utilities in the beginning of the construction and there will be street restoration that will follow it.

WG Member: Are there plans to do a lot of the work at night?

Project Team: This is something that will be discussed as part of our construction topics in future meetings.

WG Member: Will there be any beautification in addition to resurfacing? Trees in medians, etc.?

Project Team: I can't speak to the medians and the trees, but when the project is complete you will have a fully restored street, curb to curb.

WG Member: Did the City consider all the alignment possibilities? It is a shame that we don't have the opportunity to discuss the alignment as part of this working group.

Project Team: There was a large pre-planning effort that looked at the alignment early in the process and the alignment was selected and included in the EIR. The alignment is not within the scope of this discussion per the Mission of this WG.

WG Member: What are the packages [in the informational materials] referring to (B-1, B-2, B-3)?

Project Team: The alignment has been divided into different construction packages with different contractors. For the Morena alignment, there are four different packages, which we have consolidated into three working groups. These include the Morena Pump Station and associated facilities, Morena Boulevard to Clairemont Drive at Iroquois Avenue, Clairemont Drive at Iroquois to Appleton Street, and Appleton Street all the way to the North City Water Reclamation Plant. B-2 is the primary package associated with the Clairemont community. There was a lot of thought and logic that went into these packages. There are different types of construction associated with different parts of the alignment. For example, there is a different level of expertise associated with tunneling and trenching.

WG Member: Are they electric weld and steel pipes? And then coated? Are they pressure tested before a coat is applied? Will you test separate sections as you go through the alignment?

Project Team: Yes. Testing will be very important throughout the process. We will test the different sections as we go through.

WG Member: How much more expensive would it be to construct the alignment entirely by tunneling?

Project Team: This was looked at in the pre-planning reports but was not something that was reviewed further after that.

Contract Documents

Sean McCarty provided an overview of the construction contract documents that the City uses to determine the specifications and guidelines that the contractors are required to follow during construction. These documents include the Public Works Construction "Greenbook," which is used by over 200 cities/counties/agencies, and the Public Works Construction "Whitebook," which includes the City of San Diego's supplemental guidelines to the "Greenbook." Additionally, there are project-specific contract requirements and conditions detailed in the Site Development Permit approved by City Council, the City's Supplementary Special Provisions and project plan drawings. S. McCarty reviewed the Construction Contracts Specifications document provided to all Working Group members in the WG binders. This document details the minimum construction specifications related to issues such as noise, schedule restrictions, construction phasing, work days and times, dust control, air quality, odor, work zone details and staging, traffic control, road restoration, spill prevention, fire protection, biological resources, tree removal, cultural resources, and time lapse cameras. The following are comments or questions from the WG members:

WG Member: Is there a different bid specifications document for each working group? Because this one has nothing about Clairemont in it; it all looks like University City.

Project Team: There are specific items about University City due to the conditions of the Site Development Permit, like specific conditions about work on Genesee. The same document is being provided to all four groups so everyone is aware of all the considerations for all the communities.

WG Member: Is the righthand side text [in the bid specifications matrix handout] listed from the references?

Project Team: Yes, this is the verbatim language from the books.

Coordination Between Projects and Street Restoration

S. McCarty provided an overview of the way the City coordinates on projects to avoid disruptions. S. McCarty also shared how the City monitors Capital Improvement Projects monthly to identify potential conflicts with other upcoming projects and coordinates with agencies/companies outside of the City to notify them of the three or five-year road-work moratorium depending on the type of pavement restoration. Curb-to-curb pavement restoration will be provided along the alignment. Existing pedestrian curb ramps along the alignment will be upgraded to meet ADA standards. The following are comments or questions from the WG members:

WG Member: Will other companies be allowed to use your trenches?

Project Team: No, they will not be able to use our trench if it is another facility such as water or electrical. There are separation requirements between electrical facilities and pipelines that carry liquids and separation requirements between water and sewer.

WG Member: Clairemont Drive was just repaved. Now you are coming a year later and tearing it up. I don't understand how that works.

Project Team: There was a slurry seal as part of the previous project, and the part you are referring to is a segment of the street the Morena alignment will not go through. We will do full street restoration at the completion of this project in the Clairemont area.

WG Member: Will the trench on Clairemont Drive be in the middle of the street?

Project Team: No. There will be portions of it on each side.

WG Member: Will there be coordination with the long-term powerline undergrounding?

Project Team: The City has a special group dedicated to undergrounding and we are coordinating with them to interface about the Morena project. We are coordinating with SDG&E about power supply and to make sure you will not see multiple projects at once.

WG Member: Even if another company was doing a project at the same time, they would have to be doing a separate trench and in a separate area, correct? So you could potentially have two separate utilities trenching at the same time?

Project Team: Is it correct that they would need to have their own trench. We would coordinate our efforts to make sure they are not at the same time. We are working to avoid any patchwork street fixes.

WG Member: It seems like at Balboa and Clairemont Drive there is a fuel line in the intersection? Is that correct?

Project Team: There is a Navy fuel line that comes up Pacific Coast Highway and crosses Tecolote Canyon. The Navy has upgraded different parts of it. There is not a fuel line at that intersection.

WG Member: I have heard of contaminated soil due to old or existing gas stations. I heard there is one at the Clairemont and Balboa intersection. Are you aware of any others along the alignment?

Project Team: This is true for several locations along the alignment. We have been working with the Environmental Services Department (ESD) for the past two years to identify all the potential leaks from underground storage facilities. ESD has contacted about 70 percent of the owners. We establish a prepay arrangement where the owners are responsible for all costs. There are bid specifications in place to help this process. This process does not affect the schedule and it is relatively quick to address. Yuma is the closest federal disposal site.

WG Member: How deep are the trenches?

Project Team: The minimum depth is six feet to the top of the pipe, but they go down as far as 25 feet. We have to be down below all the water services and other utilities. There are three tunnels—San Clemente Canyon, Rose Canyon and the I-805—where the trenches are 100 feet down.

WG Member: Has there been enough pre-soil work to know if you will hit any blasting material?

Project Team: Yes, we have done a lot of soil investigation, and we have a geotechnical baseline report that we are providing the contractor as part of the specifications. That is basically our pipeline plan and profile to anticipate soil classification as they move through based on our borings. It was part of the design work.

WG Member: Have different areas been identified for where the seal or overlay will take place?

Project Team: Yes, we have an Overall Condition Index (OCI) for the whole alignment. The rating determines whether the street will receive a slurry seal or a complete overlay.

WG Member: Is the thickness of the asphalt specified in the plans?

Project Team: Yes, it is shown in the plans and then the contractors bid on it based on their approach.

WG Member: What other features come along with these construction activities?

Project Team: There are two main features with the force main. There are air vacuum air release valves that are in a vault and there is a vent that comes up from that. There are also the blowoffs which are all in an underground structure and drain to the sewer system. So, features that we will periodically use to maintain the line are all underground structures. There will be a lateral sewer pipeline to the sewer main but no service connections—we are not distributing anything, we are just moving it.

WG Member: The vaults will also be in-lined?

Project Team: Yes, they will be in-lined and offset. The vault will be bigger than the pipeline. What you see on the surface looks like a sewer manhole. It is like a big giant straw from one end to the other.

WG Member: Are we going to smell anything? I'm still having trouble wrapping my head around the methane issue.

Project Team: There is no methane in the pipeline. It is a pressurized system. For the very few times that the pressure changes in the pipeline we have these air vac release valves. Any air going in or out of the pipe goes through a carbon scrubber and the activated carbon filtering system which will absorb any odors. We are injecting high purity oxygen into the waste stream at the pump station. It helps prevent the odors from forming and helps inhibit corrosion in the pipelines.

WG Member: If a line broke, is there a shutoff system?

Project Team: Yes, there are isolation valves. These allow us to shut off segments of the pipeline. A sudden change in pressure would immediately start a shutdown of the pump station. The pumps gradually coast to a stop. The pump station is designed to have fail safes. We will continue to refine the system as the pump station comes online.

WG Member: Is it an automated process?

Project Team: Yes, and it is not just automated, there is a human who would get a signal that the pumps are going offline. There is also a signal, so we can monitor pressures in the pipelines. You don't have to be there, with today's technology they can also get notifications to their phones.

WG Member: I read that there are 14 of these air vents but you have been saying there are six.

Project Team: As we have progressed with our design we have done some refinements to the number of air valve releases that we need. We will bring the locations of the air vents to the next meeting.

[Post-Meeting Note: It is correct that there are 14 air vents that are part of the Morena pipelines project.]

WG Member: Does it shut down at the pump station location?

Project Team: Yes. It takes 30 seconds to shut down the pump station.

WG Member: What about the brine line?

Project Team: If there was a problem it would also shut down immediately. We have the ability to turn it off or divert directly to the sewer system.

WG Member: What happens to the sewage after the shut down? Is it still contained somewhere?

Project Team: The amount would be small, but there would be a spill that could be quickly cleaned up. The system is pressurized but once there is a change in pressure it ceases to be a pressure system and instead becomes a gravity system wanting to flow back to the pump station.

Facilitator: We can see there are concerns on the operational safety of the system. This is not one of the 11 construction topics we will cover as part of these working groups, but we can see there is some information that is lacking that we will come back to and address at a later time. Let's return to the topic of street restoration.

WG Member: What about medians and other street beautification?

Project Team: This project has not been identified as a Capital Improvement Project. Street beautification is funded by the general fund and there is a maintenance assessment district. It would be something the community would initiate rather than the City.

WG Member: Beautification of Clairemont Drive would be a great way to pay back the community for the inconvenience of this project. This is a \$2.2 billion project—why not spend a few million dollars to add trees to either side of the street?

Project Team: We have noted your comments and will take them back for consideration.

[Post-Meeting Note: Pure Water Phase 1 is a \$1.4 billion project.]

WG Member: What about the construction schedule? Could some of the construction be done simultaneously to save time?

Project Team: This is something that will be presented to the group for discussion at a future meeting.

Public Comment

No members of the public attended the meeting so there was no public comment period.

Next Steps

N. Hentschel closed the meeting by briefly reviewing the topics for next time and reminding WG members that the next meeting will take place on Monday, July 16 at the Clairemont Emmanuel Baptist Church.