

P3/P4 Relining Project Community Update Summary

Date: March 27, 2003

Time: 6:30 p.m.

Organization:

Mira Mesa Residents

Meeting Location:

Mira Mesa Public Library

Presenter(s):

Gina Molise, San Diego County Water Authority
Larry Rega, San Diego County Water Authority

Staff Resources:

Jack Neely, San Diego County Water Authority;
Teresa Penunuri, San Diego County Water Authority

Summary:

Public Affairs Representative Gina Molise introduced the project team and described the role of the Water Authority. Approximately 75 to 95 percent of the water used in San Diego County is imported from the Colorado River and Northern California and delivered by the Water Authority. The Water Authority is the water wholesaler for the county; its mission is to provide a safe, reliable water supply to nearly 3 million county residents.

The Water Authority operates a water delivery system that includes about 280 miles of large-diameter pipes. These pipes are grouped into two routes or aqueducts. The Second Aqueduct runs through Rancho Penasquitos and Mira Mesa. This aqueduct includes Pipelines 3, 4 and 5; the relining project will involve pipelines 3 and 4. Pipeline 3 was built in late 1950s and is 69 inches in diameter; Pipeline 4 was built in the early 1970s and is 96 inches in diameter.

Every winter, the Water Authority shuts down portions of the aqueduct system so that inspectors can go inside and conduct inspections to evaluate the condition of the pipe. This helps us determine what portions of pipe need to be repaired, and how soon this work must be done.

During an inspection in 1999, approximately 3 miles of pipelines 3 and 4 showed damage in the Mira Mesa and Rancho Penasquitos area. About one-third mile of Pipeline 3 needed urgent attention and was repaired immediately. Now it is time to complete the repair of both pipelines. The affected pipe begins in the northern area of Rancho Penasquitos and extends south into Mira Mesa approximately one-half mile south of Mercy Road, ending east of Westview Parkway.

The pipelines will be repaired by placing a steel liner inside the existing pipe. Pipeline relining has much less impact on the environment and neighboring communities than removing and replacing the pipe. It is also faster and less expensive, and lasts as long as a brand-new pipe.

The relining project for pipelines 3 and 4 in Mira Mesa and Rancho Peñasquitos will begin in fall of 2003, with a firm completion date of June 2004. The scheduling of the

relining work is crucial since the pipes can only be taken out of service for repairs during cooler months of the year when the region's water demands are lower. In the fall, Pipeline 4 will be shut down and relined. As soon as Pipeline 4 can be placed back in service delivering water, Pipeline 3 will be shut down for relining. Each pipeline will take approximately four months to reline.

Senior Civil Engineer Larry Rega gave a brief description of the prestressed concrete cylinder pipe that was used to construct pipelines 3 and 4. A section of this type of pipe burst in the Water Authority's system in the late 1980s, shedding light on the tendency of prestressed cylinder pipe to deteriorate relatively early in its expected service life.

As a result, the Water Authority established its Aqueduct Protection Program in 1990 to inspect and monitor the condition of its pipelines. This systematic approach to pipeline maintenance enables the Water Authority to identify which pipes will need to be relined, and how soon, before they pose a risk of failing. The Water Authority has identified 80 miles of prestressed concrete cylinder pipe that will need to be relined over the next 30 years. On the top of the priority list for relining is the three miles of pipelines 3 and 4 in Rancho Peñasquitos and Mira Mesa.

The San Diego region is not alone in having problems with prestressed concrete cylinder pipe. All over the world, this type of pipe is being repaired because it is deteriorating earlier than expected.

To perform relining, sections of the existing pipe will first be excavated and removed at 10 access portals along the 3-mile length of the project. A specialized vehicle, similar to a dolly, is placed into the access portals to carry the steel liners into the pipe. Initially the liner is slightly overlapped so that it is smaller in circumference than the existing pipe and can fit into the pipeline. Once the liner is in place, it expands to its full size, and the seams are welded together. Next, concrete grout is injected to fill any spaces between the new liner and the original pipe. The inside of the liner is also lined with cement mortar coating.

Another 13 locations along the pipeline will be used to introduce relining materials, ventilation and power into the pipe. No excavation will be necessary at these locations, however.

Relining work will be done during daylight hours, Monday through Friday. At this time, evening and weekend work is not anticipated. Once construction is complete, the excavation sites will be filled in and the work areas restored to their original condition.

The Water Authority understands that residents have important concerns regarding safety, noise, traffic and dust near the project work areas, and we will implement measures to reduce the project's impact on the community. The Water Authority appreciates the community's patience with this important maintenance project. We will send additional notices to residents prior to the beginning of construction, and we welcome any comments, questions or concerns from the community.

Q & A:

Q: Why are there cracks in these pipelines?

A: We're not sure. It is possible it is due to soil corrosion, or a defect during fabrication or during installation.

Q: What impact will these access portals have on traffic and noise? Will the number of workers cause traffic or parking issues?

A: Sound barriers will be built around the portals to reduce construction noise. On most days relining work should only require about six workers per portal, and not all portals will be used at the same time, so the impact on traffic should not be significant.

Q: How large are the access portals where excavation will occur?

A: Approximately 30 to 40 feet long and 20 feet wide. The portal locations are carefully chosen to minimize disruptions to the community.

Q: Will any work be done on the roadway?

A: No, there will be no roadway construction. All work on pipes under roadways will be done underground, inside the pipe.

Q: Will Alemania Road be used to transport materials and pipe?

A: Yes. There are several relining access portals south of Mercy Road on Miramar Hill, so Alemania Road will be used to reach those work areas. In addition, as part of this project the Water Authority will construct a pipeline interconnection facility on the southern slope of Miramar Hill to connect pipelines 3 and 4. Alemania Road will be used to access this location as well. The interconnection facility will be approximately 10 feet by 10 feet in size, and most of it will be housed underground, with one or two feet extending above ground.

Q: Do you have an exact start date?

A: No. Construction is slated to begin in fall of this year (2003) when the demand for water is low enough so that pipelines 3 and 4 can be taken out of service, one at a time. We expect to begin mobilizing at the portal access points in September, and to begin relining activities in October.

Q: Will construction hours be 7 a.m. – 7 p.m.?

A: Yes, not one truck is allowed to start up before 7 a.m. We expect the work crews will close down for the day in the late afternoon, well before 7 p.m..

Q: Will this construction impact my water pressure or flow?

A: No. You will not notice a disruption in water pressure at all. The pipelines that we will be working on carry treated water to our 23 member agencies, which in turn send it along to residents and businesses in their own pipes. The pipes bringing water to your home are maintained by the city of San Diego, which is a separate system from our pipeline system.

Q: Is there a phone number people can call if there is a problem with dust or noise?

A: Yes. We have already established a 24-hour project hot line for residents to call in their questions and concerns about the project: **1-877-682-9283, Ext. 7005**. A member of the project team will return calls within one day. This hot line number is included in all the materials we send to the community about the project.