

Questions and Comments After the ESP Video:

- Q. What is the purpose of the stain on the downstream side of the Olivenhain Dam?
A. The desert varnish stain on the downstream side of the dam was applied so that it would blend in with its surroundings.
- Q. The video said you'd be raising the San Vicente Dam 54 feet – is that the final decision?
A. We are still doing feasibility studies to determine the final height.
- Q. Will the existing dam be left in place and you'll build on top of it?
A. Yes. The final design is still being determined.
- Q. Will the San Vicente Dam raise be made of roller compacted concrete, like the Olivenhain Dam?
A. Yes.
- Q. In the video, it said that the Olivenhain Dam could withstand up to a 7.25 magnitude earthquake. How do you establish that in the construction of a new dam?
A. We analyze the nearest faults and determine the likely magnitude of an earthquake in the area. The Department of Safety of Dams is involved in the design to ensure the quality of the dam.
- Q. What magnitude earthquake will the raised San Vicente Dam be able to withstand?
A. That will be determined during design and with consultation with the Division of Safety of Dams.

Questions and Comments During the Presentation:

- Q. In case of an emergency, will the San Vicente Pipeline be operational?
A. Yes.
- Q. Who is the contractor for the San Vicente Pipeline project?
A. Shea-Traylor joint venture.
- Q. How many TBMs will be used for the project?
A. Three.
- Q. Is one a spare or will they all be working?
A. All three will be tunneling. One will be inserted at the San Vicente Portal and will travel west. The second TBM will be inserted in the Slaughterhouse Shaft and the third TBM is for the Central Shaft. When the portal tunneling is done that TBM will be taken out and be used at the West Shaft.
- Q. Is there a grade to the tunnel?
A. The grade ranges from almost flat to 1.9 percent. The contractor asked to lower the Central Shaft because there is a .4 percent grade difference and lowering it will make it easier for the

smaller engine locomotives to access the site. The Central Shaft is the high point of the tunnel, from where it goes down to the west and east.

Q Where does the tunnel cross the aqueduct?

A. The tunnel passes below the La Mesa Sweetwater Extension pipeline and the Helix 36 inch pipeline in Slaughterhouse canyon.

Q. You'll be able to pump to the west. Are there any conditions where you'll be able to use gravity flow out of San Vicente Reservoir?

A. Not in the Water Authority's pipelines. There will still be gravity flow through the existing city of San Diego pipelines.

Q. Will the pump station also provide some water to the Levy Water Treatment Plant?

A. Yes, but the interconnect pipelines are still in design.

Q. Is the second aqueduct gravity flow?

A. Yes.

Q. But you can't put water in the second aqueduct?

A. The San Vicente Pipeline will connect to the second aqueduct, so then we will be able to pump water to the second aqueduct.

Q. For the Lake Hodges to Olivenhain pipeline, will you be pumping water?

A. Yes, it is a pumped storage project. The water will be pumped out of Lake Hodges at night and then go back to Lake Hodges by gravity flow during the day, which will generate electricity.

Q. Will anything be done to the Lake Hodges Dam?

A. No, not as a part of the Emergency Storage Project.

Q. Where will the material that comes out of the tunnel be going?

A. For the material that comes out of the portal, a disposal area has been identified on the east side of Highway 67. The material from the Slaughterhouse Shaft will be disposed on the west side of Highway 67, limiting the number of trucks that have to drive on the highway.

Q. Will any of the material be used for other construction?

A. The commercial quarries will use it for building materials.

Q. For the Olivenhain Dam, you were able to use the material that you blasted from the site to build the dam. Will you be able to use the material from the San Vicente Pipeline tunneling for the San Vicente Dam raise?

A. We did a study of the material along the San Vicente Pipeline alignment and found that it is not good material to use for the dam construction. We prefer to find a location with consistent material for the mix design. The material from the pipeline alignment would only be a small percentage of what we would need for the dam raise construction. We also wouldn't have a place to stockpile that material until dam raise construction begins.

- Q. Is the location for the material being searched now?
A. Yes, it is being studied.
- Q. How much of the design for the San Vicente Dam raise is complete? How will you connect the existing dam to the new dam?
A. The project is in the preliminary design stage, so there is not a detailed design at this time. The best method for bonding the new dam to the old will be determined during design.
- Q. Are there drawings showing how San Vicente Dam is tied into the bedrock?
A. Yes, I am sure there are.
- Q. Will there be a track system in the tunnel?
A. There will be a rail system inside the tunnel while excavation is under way. It will be used to move material out of the tunnel and to put pipe in.
- Q. Will they expand the exterior of the pipe to the tunnel?
A. The TBMs will excavate the tunnel and install an initial support system. The steel pipe pieces will then be brought into the tunnel and welded together.
- Q. Will the space between the concrete and tunnel be grouted?
A. Yes.
- Q. How thick is the lining inside the pipe?
A. It's a minimum of half an inch, which is pretty typical for pipelines.
- Q. You have two options for the pipe shown in the diagram. Are you doing both of these?
A. We had two options of pipe for bidding and the bidders opted for steel lining.
- Q. Will you have tours as construction continues?
A. Yes, but not inside the tunnel. We will have additional tours and site visits. For example, when the TBMs arrive, that will be a good tour opportunity.
- C. I think the Water Authority should be admired for this kind of planning.
- Q. What is the expected life of the tunnel?
A. It has a 100-year expected life span.
- Q. Will the pipeline be above ground over to the dam?
A. No. The portal will be excavated down. It will go about 10 feet underground.
- Q. What drives a TBM?
A. Electricity is used to run hydraulic pumps and other motors in the TBM.
- Q. Are the TBMs brand new?
A. All of them are new and from Germany. *(This answer was actually incorrect. The correct answer is as follows: The hard rock machine is a used machine manufactured by Robbins Bros. that will be refurbished at their facility in Ohio. This machine did one previous tunnel in*

Bolivia. The two digger shield machines will be brand new and manufactured in Washington by a company called CTS.)

Q. Do they make them in the U.S.?

A. TBMs are made in the U.S.

Q. Who is the design engineer?

A. Jacobs & Associates.

Q. There are a few homes around this area - will they be affected by the construction?

A. There are only a couple homes – the area is pretty remote, so there won't be much impact.

Q. Is recreation on the lake closed now?

A. No, the lake is open. It probably won't be closed for one to two more seasons.

Q. Are there plans to build an emergency electric facility here?

A. No. There are three pumps but only two pumps are required. The third pump can be powered by a generator.

Q. Do the pumps have fixed or variable speed?

A. Variable.

Q. When does portal activity start?

A. Clearing will begin within the next two to three weeks. Grading and setup will begin in six to eight weeks.

Q. What is the length of the contract?

A. 42 months – through December 2008.

Q. When will construction on the San Vicente Dam begin?

A. Around 2008.

Q. So it will be starting about the time the pipeline is finished?

A. Yes.

Q. When did people vote on the bond issue for the Emergency Storage Project?

A. The Emergency Storage Project was approved in 1998.

Q. Are they going to preserve the archaeological site?

A. It will be moved to a reservation site.

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