

The tunnel excavation begins with a pattern of small, two-inch diameter holes drilled into the rock about 10-feet deep. Charges are placed in the holes with individual detonators timed to provide a sequence of mini blasts. The duration of each blast will vary between four to eight seconds, and blasts will occur two to three times a day. Property owners living approximately 400 to 500 feet away from the area may hear the blasts, which will sound like popcorn popping in a microwave. . Gordon explained the blasts will not cause the ground to collapse. Property owners living within 400 feet will be contacted to have a third-party professional consultant come to the home to conduct a pre-blast photo/video documentary of the home as a safeguard to the homeowner. He encouraged homeowners to accept the offer, which is provided at no cost.

Gordon said seismographs will be placed at various distances from the blast center and next to the nearest structure to measure ground motion. Expected vibration levels at structures located along the tunnel alignment will be four times lower than the allowable limits as determined by the U.S. Bureau of Mines. He explained a child jumping up and down on a floor would cause more vibration in the home than what will occur on this job. Gordon concluded that safety is of paramount importance to everyone on the project team.

Questions and Comments During the Presentation:

Q: Where is the opening into the Lake Hodges?

A: The tunnel extends through a future pump station to be constructed on the lake shoreline, and will eventually extend about 100 feet into Lake Hodges.

Q: Is the tunnel heading from Lake Hodges to the Olivenhain Dam?

A: Yes. The tunnel will be excavated uphill from Hodges to Olivenhain.

Q: What are you going to do with the material from digging the tunnel?

A: The tunnel will generate about 60,000 cubic yards of material, which was initially planned to be exported to offsite locations, resulting in 6,000 truck trips impacting the community. Instead of hauling offsite, we are evaluating alternatives that would allow the material to be placed onsite and eliminate this traffic impact.

Q: Is there a cost to not haul away the material?

A: The cost to haul the material versus placing it onsite is essentially the same.

Q: Will the River Park Trail be realigned?

A: The trail will be realigned in the vicinity of the project site, and will follow the same alignment as the access road.

Q: What environmental mitigation will result from this project?

A: The project is mitigating local impacts, such as traffic, with restricted trucking hours and the traffic signal. Impacts to biological resources on this project were mitigated with offsite acquisition and preservation of mitigation properties. Mitigation measures for the Lake Hodges projects and the entire ESP are addressed in the project EIR/EIS, which is available for review at the Water Authority.

- Q. The EIR states a zone impact related to blasting of 180 feet, and anything within 180 feet would be impacted. Is a 120-foot measurement being used for this project? Are you complying with the EIR?
- A. We are complying with the EIR.
- Q. Are you complying with all assumptions in the EIR?
- A. Yes.
- Q. I am concerned because my property is 20 feet away from the blast area and you are not taking into consideration the gases that are under various properties. If you set off explosives, you could hit gas and cause real damage. What are you doing about this?
- A. Cal OSHA has classified the Lake Hodges tunnel as a non-gassy tunnel. Gas monitors will be used to document any indication of gas.
- Q. What will the third party consultant that will document our homes before the blast cost us?
- A. There is no cost.
- Q. I am concerned with the damage to my well. I pump 45 gallons a minute.
- A. The charges used on this project are so small that no well damage should occur.
- Q. Will you go through our water table?
- A. The tunnel is located below the upper elevation of the surrounding groundwater table.
- Q. Hargis & Associates monitored the wells during the Olivenhain Dam project. Will you do the same during this project?
- A. We can look into that.
(Note: Following this meeting, the Water Authority agreed to extend the well monitoring program. The program will monitor several wells in the vicinity of the tunnel project. Owners of these wells will soon be contacted by the Water Authority to participate in this new monitoring program.)
- Q. This alignment is not a straight line. Will you stick to this alignment no matter what?
- A. Yes.
- Q. In the EIR and at past meetings, the team indicated a tunnel boring machine was going to be used and now you say you will drill and blast. I cannot find that in the EIR anywhere. You have not conducted a Mitigated Negative Declaration (MND) on the drill and blast method and no one is looking at the impacts of this new method.
- A. The Water Authority will find the reference in the EIR that allows the Water Authority to proceed with the drill and blast method on this project. Drill and blast construction was evaluated in the project EIR/EIS, and has always been an acceptable construction method for this project. The other acceptable method was to use a tunnel-boring machine.
- Q. I would like a copy of the Hargis & Associates well monitoring report for the Olivenhain Dam.
- A. This report has not been finalized. We expect to finalize the report in the next several weeks, and will provide copies upon request.

- Q. I heard about a project in San Bernardino where they broke the aquifers. Do you know anything about that?
- A. That project is being done for the Metropolitan Water District of Southern California.
- Q. When you received the three bids on this project, did you decide to go with the drill and blast proposal because of cost? How did you make the decision?
- A. The environmental analysis and the engineering analysis determined that both drill/blast and tunnel boring machine excavation methods were acceptable to construction the tunnel, and the project was advertised for bids to allow either method to be used. We received three bids to construct this project, two from tunnel boring machine contractors and one from a drill/blast contractor. The decision to select the drill/blast method was based on a review of the contractor qualifications and cost.
- Q. Are you going to be performing any of the drilling work from the surface down?
- A. Except for the portals at each end of the tunnel, all work between the portals will be sub-surface.
- Q. Are you still intending to install the traffic light at Del Dios Highway and Rancho Drive?
- A. Yes, but the exact install date is not confirmed.
- Q. Can you put a higher switch on the traffic light so horse riders can reach it?
- A. We can look into this, but know this is a temporary traffic light. It will be removed at the conclusion of the project.
- Q. Is there a provision to access the data on our wells from the Water Authority?
- A. I will look into this.
- Q. Will you drain the lake or use a coffer dam?
- A. The Water Authority does not have any plans to drain the lake at this time. We will build a coffer dam.

Dave Chamberlain concluded the session by thanking everyone for attending.

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