

The \$198 million contract to build the San Vicente Pipeline is the largest contract the Water Authority has ever awarded. The project is scheduled to be complete in 2008.

San Vicente Dam Raise

Jeremy Crutchfield introduced himself as a senior engineer for GEI Consultants, Inc. GEI was hired by the Water Authority to prepare the planning and conceptual design of the dam raise. Jeremy explained the Emergency Storage Project portion of the project will raise the dam 54 feet and increase the present storage capacity by 52,000 acre-feet. A recent study by the Water Authority identified a water storage shortage of 100,000 acre-feet during drought years. It is thought that the best way to achieve this storage is to raise the dam higher by an additional 69 feet over what is planned for the Emergency Storage Project. With a potential total dam height of 343 feet high, the reservoir would hold approximately 250,000 acre-feet of water. This portion of the dam raise is called the Carryover Storage Project. Jeremy referred to a reservoir high watermarks poster, which shows that the additional water inundation is not significantly greater for these projects.

The construction method for raising the dam will be using roller-compacted concrete (RCC), which uses less water than conventional concrete. Approximately two million tons of aggregate will be needed to prepare the RCC. There will be a new outlet tower. A new marina will be built (the old marina will be abandoned under water) higher in the canyon.

There will be recreational impacts from the San Vicente Projects. The marina will be closed on the weekdays from fall 2006 to spring 2007 due to surge control facility construction. The reservoir will be open on weekends and holidays during that time. In mid- to late 2008 the reservoir will be closed completely to recreation. Dam construction is scheduled to be complete in 2012. It will take approximately two to five years to refill the reservoir. Boat activity will begin as soon as the reservoir has reached the new height to accommodate the boat ramps.

Questions and Comments During the Presentation:

Q. What will the tunnel be lined with?

A. A steel pipe will be placed inside the tunnel. The majority of the tunnel is conglomerate (cobbles). A precast tunnel system will also serve as initial support and the steel pipe will be installed within the system.

Q. How will material be removed from the Central Shaft?

A. There are various methods to remove the material and it is up to the contractor to identify its preferred method. A crane and muck bucket could be used. Rail cars could be used at the portal. It should be noted that all excavated materials out of the Central Shaft will not be removed from the site. The site will be raised about 8-10 feet from what it is currently.

Q. What is the diameter of the San Vicente Pipeline tunnel? How deep will it be?

A. It will be about 11½ feet in diameter. The depth will vary from 50-60 feet in the valleys and 600-650 feet at the peaks.

- Q. How many contractors are working on the projects?
A. For San Vicente Pipeline, there are two main contractors working on the project as a joint venture – Traylor-Shea and there are many subcontractors. The dam raise hasn't been bid yet.
- Q. Will you try to hire locally?
A. The Water Authority signed a Project Labor Agreement with the labor unions in order to prevent a strike during construction. Roller-compacted concrete requires 24-hour, non-stop construction. The Water Authority signed this agreement to control the risk of work stoppage and encourage local hiring. The Water Authority offers assistance in local labor force training. Non-union personnel are treated equally. Approximately 30-40 percent of workers at the Olivenhain Dam were local.
- Q. Will excavated material be used to raise the dam?
A. No. The pipeline route goes through multiple rock types and consists of different rock material. A consistent high quality aggregate is needed to build the dam.
- Q. Will the size of the spillway of the existing dam remain the same?
A. Yes.
- Q. Will anything need to be done to the old dam to make the RCC adhere to it?
A. There most likely will be some bonding interface with the old dam.
- Q. What kind of condition is the current dam in?
A. Excellent. It is performing very well.
- Q. How far will blasting be heard for the dam raise?
A. An Environmental Impact Report/Environmental Impact Statement will be prepared for the Carryover Storage Project. [A notice to proceed is currently planned for spring of next year.]
- Q. Will dirt and soil be brought into the site for the dam raise?
A. Aggregate and clean sand material will be brought to the site. The sizes vary from 2½-inch diameter to sand. [cement and flyash will also be brought to the site]
- Q. It sounds like there will be a 10-year time frame when the reservoir will be out of use to recreation. Is this correct?
A. It is difficult to pinpoint an actual amount of time of the closure. There's a definite three-year period of closure during construction. After that it depends on how much rain the area receives. Extended boat ramp designs are being evaluated to potentially allow boating activities to resume once the reservoir is filled to an elevation slightly higher than the existing spillway. This could take between two to five years, perhaps more or less.
- Q. Could the water saved by relining of the Coachella Canal in Imperial Valley go into the San Vicente Reservoir?
A. Yes, it could.

Alex Newton concluded the presentation by thanking the Chamber of Commerce for the opportunity to present to their group and said the Water Authority would be happy to return upon their request to provide updates.