EMERGENCY STORAGE PROJECT
San Vicente Pipeline and San Vicente Dam Raise Update
Presentation Summary

DATE: Nov. 2, 2005	TIME: 7:30 p.m.
EVENT:	Lakeside Planning Group
MEETING LOCATION:	Lakeside Community Center
PRESENTER(S):	Kathy Schuler, SDCWA Jeremy Crutchfield, GEI Consultants Inc.
STAFF RESOURCES:	Alex Newton and Jim Zhou, SDCWA Emily Powell, Katz & Associates

SAN VICENTE PIPELINE PRESENTATION SUMMARY:

Alex Newton from the San Diego County Water Authority announced two representatives would provide updates regarding the San Vicente Projects. He introduced Kathy Schuler, the contract administrator for the San Vicente Pipeline project, and Jeremy Crutchfield, a consultant for the San Vicente Dam Raise.

Kathy Schuler announced the fall ESP Update newsletters were mailed out and copies were available on the back table for people at the meeting. She gave an overview of the project explaining that the San Vicente Pipeline is an 11-mile tunneled pipeline, which extends from the West Shaft, located adjacent to the Water Authority's Pressure Control and Hydroelectric Facility (PCHF), to the San Vicente Reservoir. The project is valued at about $198 million, making it the largest project ever to be awarded by the Water Authority. It was awarded as a joint venture to Shea-Traylor and work has been under way for three months. Work has begun on the surge control facility at the West Shaft; trailers, equipment, and storage facilities have been set up at the Central Shaft; the tunnel has been dug 25 feet at the Slaughterhouse Shaft; and excavation work has begun at the San Vicente Portal.

Questions and Comments During the Presentation:

Q. How deep will the Slaughterhouse Shaft be?
A. The Slaughterhouse Shaft will be 50-75 feet deep.

Q. Will there be a cross connection between the El Capitan Reservoir and the San Vicente Reservoir?
A. The pump station is the connection between the San Vicente Reservoir and the Moreno Lakeside Pipeline.

Q. Where will the spoils from the four different sites go?
A. The muck from the tunnel excavated under the Hanson property will stay on the Hanson property. The muck coming out of the San Vicente Portal and Slaughterhouse Shaft that is

not from directly underneath the Hanson property is at the Contractor's option for disposal. The muck excavated from the Central Shaft must stay on the Central Shaft site. The muck from the West Shaft will be transported off the site and it is up to the Contractor to find a disposal site.

Q. What is the definition of muck? It sounds like it is a water hydrated material mixed with rocks and sand. If so, where is the water coming from?

A. The water mixed in with this material is from the aqueduct owned by the Water Authority and naturally occurring groundwater. The material will emerge moist, and it will vary depending on the geology of the area which is unknown at this time.

Q. How many truck loads and trips of excess material will leave the work site and where will it be going?

A. It is hard to give a complete answer to your question at this time. The majority of the muck from the Slaughterhouse Shaft will stay on Hanson Aggregates' property. This includes the excess material located west of Highway 67 (at the Slaughterhouse Shaft) and east of Highway 67 (at the San Vicente Portal). It depends on how much muck is extracted and how much can be disposed of on site

Q. If I understand correctly, Hanson Aggregates has entitlement to the muck on their property. They have a right to mine only to a certain grade. Do other contractors or property owners along the pipeline have the same entitlement to the excess material on their property?

A. No. The entitlement was part of negotiations between the Water Authority and Hanson Aggregates.

Q. Did anyone have the opportunity to do the same thing with their property?

A. I do not know. This agreement was part of the negotiations for property rights and easements during the design phase of the project. I will look into this further and get back to you.

Q. You mentioned the contract was awarded at the amount of $198 million plus. Will this amount change depending on what the contractors find after more work is completed?

A. The exact amount for the contract is $198,356,900. Absolutely, this contract amount can change based on the geological report and changing conditions during the project. The number could go either way - we could get a credit back from the contractor or we could owe the contractor additional money.

Q. Will there be backfill brought in for the project? Will there be an air gap of about 4 feet?

A. No backfill will be needed for this project. All areas will have concrete segments to ensure the rocks are kept in place and do not collapse. Inside the segments there will be steel liners. Between the segments and steel liners will be grout.

Q. I was a part of the team to bid with Shea on this project and at that time it was known that 350,000 cubic yards of excess material would come out of the San Vicente Portal, and 50,000 cubic yards of excess material would come out of the Slaughterhouse Shaft. This was the material not being given to Hanson Aggregates. Have these volumes changed? Are you still unsure of the volume of material that will be coming out into the community?

A. I believe these numbers have been reduced since the bidding because the tunnel now has a smaller diameter than what was included in the bid documents. We are unsure of the volume of material at this time. We are still looking into that.

Q. What did the environmental impact report for the tunneling describe as the truck traffic impact?
A. I am not sure of the number of trips at this time.

SAN VICENTE DAM RAISE PRESENTATION SUMMARY:

Alex Newton introduced Jeremy Crutchfield, senior engineer from GEI Consultants, who is working on the San Vicente Dam Raise project. The dam raise project is in the preliminary design and planning stages, and Jeremy explained that his comments will be more conceptual than the pipeline presentation by Kathy. He showed the future dam map which includes various heights under examination by the project team. He passed out smaller versions of the map and announced it will be available soon for download on the Water Authority's website. First, Jeremy addressed questions and issues from the previous meeting regarding the dam raise.

Q. What will the size of the work force for this project be?
A. We are estimating an average of 200-250 people per day at this site. However, there will be daily peaks, when work force requirements may significantly exceed that number. Construction for this project is expected to take place over about a three-year period.

Q. Can you provide mapping for the future dam to show limits of the dam and how far up the dam will go in the valley?
A. This future dam map display shows the existing dam height in blue, the permitted ESP raise height in yellow and the total height of the new dam, including both the ESP raise and the carryover storage height in red.

Q. When will the marina be closed?
A. I know this is a very important question for the Lakeside community. We were able to obtain some more specific dates regarding the closures. The marina will be closed on the weekdays from fall 2006 to spring 2007 because of the blasting occurring for construction of the surge control facility and pump station. The access road to the marina will be used for construction during the week. However, it will be open on weekends and holidays during that time. Mid-2008, we will start lowering the reservoir. We will continue to use the reservoir until we are unable to launch boats from the existing facilities. It is hard to tell when that will happen. It will be lowered to an elevation of approximately 590 feet during construction. As a result, the reservoir will be closed throughout construction and remain closed until the reservoir is filled enough, via available water deliveries and natural recharge, to accommodate recreational use. It depends on rainfall, demand, and available supply during those years after construction as to when it will be reopened. We are looking at designing a new marina facility to accommodate boat access including a longer boat ramp to facilitate boating during times of low reservoir levels. Boat activity will begin as soon as the reservoir has reached the new height to accommodate the boat ramps.

Q. Will there be improvements to the access road to get to the marina?

A. Currently the access road is dangerous, steep and people drive fast on it. We want to decrease the road grade significantly, repave it and create turnouts for trucks struggling to get up the road. The existing maximum grade is about 23 percent, and we want to lower it to a maximum grade of 12-15 percent. This should drastically decrease the number of accidents and problems on that road. At the facility itself, we plan to double the amount of parking and add more boat ramps and docking/fishing piers.

Q. Will the new dam protect against spillages in the future?
A. In the past, the dam has spilled five times. Obviously, the Water Authority does not want water spillages to occur because it means losing a valuable resource - water. The new dam will have two feet of freeboard from the maximum operating level to the spillway. Currently, the new spillway is designed to match the existing spillway length. We will also have new outlet facilities to deal with a quick-filling reservoir. There will be pump stations and larger outlet pipelines to help with water overflows and to manage the reservoir better. However, we cannot make the promise that it will never spill again.

Q. The new dam will be raised 123 feet. The face of the dam does not appear to be changed in the future dam map. Many people, including myself, have a beautiful view of the face of the dam from their homes and would like to keep that view. Are you planning on retaining the original face of the dam with the new dam? Do you have a conceptual drawing of what the face of the new dam will look like?
A. At this time we do not have a conceptual drawing of what the face of the new dam will look like. We will have such a diagram in the details-design phase of the project. I can tell you the new dam will be a natural concrete structure similar to the existing dam, utilizing the same design and spillway.

Q. What are the seismic load standards that the new dam will be designed to?
A. The seismic acceleration for the new dam will be 0.26g horizontal. The State of California Department of Water Resources Division of Safety of Dams (DSOD) will review the seismic design to their latest standards. DSOD's requirements for a dam are very strict and conservative

Q. Will there be any changes to the face of the new dam?
A. The raised dam will be built on top of the existing dam resulting in a completely new downstream face. It will have a stepped appearance, with the dimension of those steps yet to be determined. The upstream face of the existing dam will remain the same; however, it will be completely inundated by the reservoir.

Q. What is the status of the initial digging you have done across the fault line?
A. Initial exploration has indicated that the left abutment fault is inactive. Further studies are in progress to collect more information and confirm the initial findings.

Q. You stated the project is now permitted for a 54-foot raise. Please give us an update regarding the other raise that may occur.
A. Right now we are permitted to raise San Vicente Dam by 54 feet for ESP storage in order to maintain water supply to San Diego County in the event of an earthquake or some other catastrophe. The red section of the display represents the additional raise needed for

carryover storage. This higher raise, approximately 69 feet more, is needed to provide excess storage ability for use during drought years. The concept is to store water in wet years and carry it over for use in dry years.

Q. How will the floodplain be affected with this project?

A. The San Vicente Dam is for water storage purposes only, and is not a flood control structure. The current plan is to use a similar spillway design as the existing dam. Since the watershed, the area in which rainfall runoff would flow into the reservoir, is also unchanged the floodplain will remain the same.

Q. When will the revised draft EIR be prepared? It sounds like the additional raise is being "piggybacked" on top of the project that was already approved.

A. A new EIR/EIS document will be prepared for this additional dam raise and made available to the public for review and comment. We have completed a conceptual design and constructability analysis for the new raise height and this information is being used by another consultant to complete the Draft EIR/EIS. We have not determined the release date for these documents at this time. The new documents will address the additional impacts caused by this project and discuss mitigation as necessary.

Q. The county has recently adopted a master plan for community trails and a trans-county trail borders the dam. Is there a chance that with the new height levels for the dam, the trail will be wiped out? If so, what are your plans to address this problem or propose a new route for the trail?

A. The EIR impact analysis will address the trail issue. The issue will be mitigated or the trails will be relocated.

Q. It appears to me that the spoils and excess material coming out of the pipeline project would be perfect to put into the dam. Is that not correct?

A. The problem is that the pipeline route goes through multiple rock types and hence consists of different rock material. We need consistent aggregate for the dam. Storing the spoil material for dam raise construction also presents a problem since construction will not start until late 2008/early 2009.

Q. With the lowered reservoir height during construction, would there be a problem dealing with droughts that may occur during that time period?

A. Measures are being looked at to supplement San Vicente Reservoir during construction with capacity in other existing reservoir when the San Vicente Reservoir level will be lowered. Even if San Vicente was kept at capacity, a prolonged drought period would result in water deficiencies. That is the reason we are looking into raising the height of the dam further.

Q. Has there been any consideration given to expanding the recreational facility or access to the northern side of the dam from the Ramona side for fishing or boat launching?

A. You have raised a good question and I will need to discuss it with the city. The city is the owner of the dam and operates the reservoir. At this time I have not heard of any plans for expansion of recreational facilities in that area. I will look into it and get back to you.

Q. The display indicates carryover storage is 100,000 acre-feet. Does this cover a three year drought?

A. Water supply/demand forecasting done by the Water Authority has indicated a need for additional supply under drought conditions. The overall supply needs are based on many factors, some which cannot be controlled, and 100,000 acre-feet was chosen as a reasonable target for additional storage and one that could be permitted.