San Vicente Pipeline Construction Begins this Summer

The second major component of the Emergency Storage Project will begin construction soon. The construction contract for the San Vicente Pipeline is expected to be awarded by the end of May with work beginning as early as July. The 11-mile pipeline will be constructed almost entirely within a tunnel. Tunnel and pipeline work is expected to take nearly four years to complete.

The San Vicente Pipeline is important to the region because it will connect the San Vicente Reservoir to the Second Aqueduct, providing access to water set aside in the event that deliveries of imported water are interrupted. This connection will also provide more flexibility for moving water around the county.

Tunneling — How It Works

Tunneling the San Vicente Pipeline will be accomplished primarily with tunnel boring machines. A tunnel boring machine works by pushing against the wall of the tunnel and penetrates the ground with a rotating cutter head. The cutter head is equipped with hardened steel rollers or digging tines depending on rock or soil conditions. The tunnel boring machine moves forward in short steps at a rate of 50 to 120 feet a day. Two to three of these machines are expected to be used on a tunnel of this length and will be launched from three shafts and one portal located along the tunnel alignment. Tunneling work will be under way approximately 20 hours a day.

There are sections of the pipeline route that are not ideal for tunnel boring operations because they may contain large boulders. In these cases, it may be necessary to break up the rock manually or use other excavation methods.

For more information, please call toll free (877) 426-2010 or visit our Web site at www.sdcwa.org.

Example of a tunnel boring machine.

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See TUNNELING on page 2
San Vicente Surge Control Facility Environmental Report Is Certified

The Water Authority board of directors certified the San Vicente Surge Control Facility Supplement to the Final Subsequent Environmental Impact Report on Feb. 24. A public hearing was held on Jan. 27.

The San Vicente Surge Control Facility in Lakeside will be built on a hill overlooking the existing San Vicente Dam and is needed to provide surge protection for the San Vicente Pump Station and San Vicente Pipeline in emergency situations.

Environmental Report Will Study Increasing Height of San Vicente Dam

The Water Authority is preparing an environmental study to address potentially raising the San Vicente Dam about 69 feet beyond the 54 feet planned for the Emergency Storage Project. The study will be called the Carryover Storage Project Environmental Impact Report and Environmental Impact Statement (EIR/EIS).

Increasing the dam height an extra 69 feet will allow an additional 100,000 acre-feet of water to be stored in the reservoir. A recent study prepared by the Water Authority as part of its facilities master plan identified the need for additional water to help meet the region's water needs through 2030. The study identified San Vicente Reservoir as a possible location for this water storage. Other potential storage sites were identified and will be studied in the EIR/EIS. Some of the issues that will be addressed in the environmental study include air quality, biological and cultural resources, noise, recreation and traffic.

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Tunneling will significantly reduce construction impacts to traffic and the environment along the pipeline route, compared to the more traditional trench construction. The tunnel is aligned below the San Diego Gas & Electric easement through Scripps Ranch, and avoids passing under any existing homes or businesses. The tunnel will range in depth between 50 and 600 feet below the surface.

The Water Authority will provide construction updates and briefings to community groups along the pipeline route throughout the duration of the project. A schedule of these planned presentations will be found on the Water Authority's Web site at www.sdcwa.org. Please select “Infrastructure” and then select “San Vicente Pipeline.”

Tunneling continued from page 1

the boulders through controlled blasting. The tunnel boring machines and underground blasting activities are not expected to produce noise that residents will hear. However, blasting will be needed to excavate some of the shafts and starter tunnels for the boring machines. Residents and businesses near these areas may hear blasting associated with this work and will be notified in advance.

It also may be possible for some residents near the tunnel route to perceive a subtle, low-level vibration for a few days as the tunnel boring machine approaches and moves past their location. The low-level vibration during tunneling will not impact surface structures such as homes, swimming pools or patios. Any noise from overall construction activities on the surface will not exceed what is allowed by city ordinances.

The Surge Control Facility will be constructed on top of the hill overlooking the San Vicente Dam.

The existing San Vicente Dam is 220 feet high, but it could be raised up to 123 feet higher.
In the next few months, the Water Authority will begin to accept comments from the public about what issues should be included in the EIR/EIS. This comment period is called the scoping process. Agencies and the general public will have additional opportunities to provide input when the Draft EIR/EIS is distributed for public comment in spring 2006.

If you would like to be included on the environmental study mailing list, or would like more information, please call the Emergency Storage Project toll-free information line at (877) 426-2010.

**San Vicente Dam Raise — Getting the Word Out**

Although construction for the San Vicente Dam raise is not scheduled to begin until 2009, the Water Authority is reaching out now to the reservoir’s recreational users. The project team staffed booths at the San Diego Boat Show in January and the Fred Hall Fishing, Tackle & Boat Show in March to raise awareness and provide information about the San Vicente Dam raise.

As part of the project, the reservoir will be temporarily closed to boating, fishing and other water recreation for several years due to heavy construction, dam safety and low water levels.

The Water Authority will continue to outreach to those who use the reservoir for boating and fishing by attending future boat and fishing shows, sending project updates, providing articles in the ESP Update and making announcements on the Water Authority’s Web site (www.sdcwa.org). If you would like to be added to the mailing list to receive future information or have any questions about the project, please call the Emergency Storage Project toll-free information line at (877) 426-2010.

**Lake Hodges Spills for Possibly the Last Time**

County residents who gathered to watch the spectacular sight of water cascading over the Lake Hodges Dam in February might have been witnesses to history. Lake Hodges has overflowed 29 times since its construction in 1918, but this year could be one of the last major spills. As part of the Emergency Storage Project, the Water Authority will construct a 1.25-mile underground pipeline connecting Lake Hodges to the new Olivenhain Reservoir. Once complete, water levels at Lake Hodges will be regulated year round.

Currently fed solely by local rainwater, Lake Hodges cannot maintain a consistent water level and is subject to both flooding and drought. Before the heavy rains came earlier this year, Lake Hodges was so low that vegetation covered portions of the lake bed. Fast forward a few months to the rainiest winter in years and water cascaded over the top of the dam, flowing into the ocean. During this record rainfall, the lake increased from 17 percent of its capacity last December to more than 100 percent capacity on Feb. 22.

The future Lake Hodges Pipeline will connect Lake Hodges to the Olivenhain Reservoir and the Water Authority’s imported water delivery system. It will allow water to move between the two reservoirs as needed and enable the Water Authority to store 20,000 acre-feet of water in Lake Hodges for use during an emergency. The pipeline will also maintain a more consistent water level in Lake Hodges and give the region the ability to capture much of the water before it spills over Lake Hodges Dam.

Along with the pipeline connecting Lake Hodges to the Olivenhain Reservoir, the Water Authority is constructing a pump station/inlet-outlet structure at Lake Hodges. The project site has been cleared, and SDG&E is extending existing transmission lines to bring power to the construction site. The project was delayed due to the rainy conditions, but the SDG&E power line and pole installation is expected to be complete by late this summer.
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Tunnel construction for the pipeline will be handled by the same contractor that built the Olivenhain Dam, Kiewit Pacific. Construction is slated for July 2005 to the summer of 2007. Pump station construction is scheduled to take place from December 2005 to December 2007.

Wetland Creation Project is Now Complete

Despite the third wettest season in San Diego history, the Manchester Wetlands Creation Project was completed on schedule. The San Elijo Lagoon Ecological Reserve in Encinitas now has nearly eight acres of additional wetlands. The Water Authority took on this $1 million project in October 2004 to mitigate for environmental impacts created by the Emergency Storage Project construction.

The wetland site borders Manchester Avenue in Encinitas. Used extensively for agriculture until the late 1980s, the site had been disturbed by grazing activities. During the mitigation project, non-native plant species that posed a threat to the quality of the wetland habitat were removed, soil was excavated and graded to support a wetland and the site was seeded and planted with native species. The Water Authority also installed a temporary irrigation system, which it will maintain for up to five years to ensure the survival of the new plants.

For more information about the San Diego County Water Authority’s Emergency Storage Project, please call toll free (877) 426-2010 or visit our Web site at: www.sdcwa.org.

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