



Summer 2001 Edition

# ESP UPDATE

## Update Provides News to You

For the past year, the ESP Update has been sent to communities near the Olivenhain Dam construction site. As the Emergency Storage Project progresses and expands into new communities, so will this newsletter. The Water Authority's goal is to ensure all residents near project sites understand what is happening in their



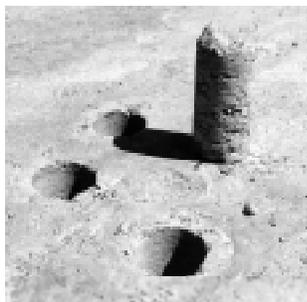
*Progress continues on the Olivenhain Pipelines Project.*

communities and why the Emergency Storage Project is important. The Water Authority staff welcomes any comments or questions you may have about the Emergency Storage Project.

## Olivenhain Construction Update

The various components of the Emergency Storage Project continue to move forward. At the Olivenhain site, the foundation excavation project

for the Olivenhain Dam is complete. Workers began the project by using explosives and mechanical equipment to excavate the foundation of the dam down to an optimum level until solid rock was found. Concrete was then used to fill in holes left by the excavation operation to provide a level foundation for the dam, an operation called "dental concrete." In early 2002, crews will begin the actual building of the dam using roller-compacted concrete. Roller-compacted concrete is less expensive than traditional concrete, but just as strong. It will allow the dam to be built in



*Roller-compacted concrete.*

one-third to one-half the time of a conventional concrete dam. Roller-compacted concrete is similar to conventional concrete but does not require forms to be placed. Instead, concrete is placed in layers and the layers are compacted with rollers similar to those used in road building. To facilitate bonding of the layers, work interruptions must be minimized. Crews will usually work 24 hours a day, seven days a week on dam construction throughout 2002. This continued construction will enable the Water Authority to complete the dam in 12 months.

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*The Emergency Storage Project is a system of reservoirs, interconnected pipelines and pumping stations designed to make water available to the San Diego region in the event of an interruption in imported water deliveries.*

*This newsletter is one way the San Diego County Water Authority is keeping communities like yours informed about the project's progress.*

*For more information, please call toll-free (877) 426-2010.*



San Diego County Water Authority  
Capital Improvement Program

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*Concrete work after Olivenhain Dam excavation.*

Construction of the Olivenhain Pipelines is scheduled to be complete by fall of this year. The project is undertaken in partnership with the Olivenhain Municipal Water District and consists of two separate pipelines. One pipeline will allow the Water Authority to move untreated water in either direction between the Water Authority's Second Aqueduct and the Olivenhain Reservoir. This pipeline will be used for both normal operating and emergency conditions and will consist of approximately 14,000 feet of 78-inch diameter buried welded steel pipe. The other pipeline will deliver treated water from the Olivenhain Water Treatment Plant to the Olivenhain Municipal Water District's distribution system and will consist of approximately

13,000 feet of 48-inch diameter buried welded steel pipe.

The design of the Olivenhain Pump Station, currently 60 percent complete, should be finished in December 2001. Construction on the three pumps and the concrete and masonry structure that will

house the pumps will begin in spring 2002 and take approximately 16 months to complete. The Olivenhain Pump Station will move water from the Olivenhain Reservoir through the

**The design of the Olivenhain Pump Station, currently 60 percent complete, should be finished in December 2001.**

Water Authority's new Olivenhain Pipeline to the Second Aqueduct that will deliver it to the Authority's member agencies.

A new power line is being constructed by San Diego Gas & Electric to accommodate the needs of the Olivenhain projects and nearby residents. Power line installation took place this summer. Some of the construction required the use of a helicopter to get to remote, hard-to-reach locations.

The Olivenhain Dam and Pipelines Projects are just two components of the \$827 million Emergency Storage Project. Other projects to be constructed south of Olivenhain, such as the San Vicente Pipeline and San Vicente Pump Station, will

ultimately operate in conjunction with the Olivenhain projects to ensure water flows to all areas of the county even if



*Olivenhain Dam construction workers fill large holes in the foundation.*

a disaster disrupts the region's imported water supply. 

## **Sites Explored for Project**

Engineering studies are under way to evaluate alternative sites for the Rancho Peñasquitos Pressure Control and Hydroelectric Facility that will pressurize Pipeline 5. Pressurizing Pipeline 5 will allow the Water Authority to deliver water into the Olivenhain Reservoir and to control water flowing in and out of the San Vicente Reservoir to meet the county's normal and emergency water needs.

The location of the facility will be near Pipeline 5 in the northeast corner of Mira Mesa, bordering Rancho Peñasquitos. After weighing environmental and engineering considerations, the Authority initially focused on a site next to

the pipeline near Mercy Road west of Interstate 15. During follow-up meetings with residents, planning groups and San Diego City Council staff, the Water Authority received additional information about the impact of the facility on the neighboring community. As a result, the Water Authority considered several alternative sites located south and east of the initially proposed site. Community representatives subsequently worked with the Water Authority to examine these sites for potential environmental and community impacts, as well as cost and engineering feasibility. A site immediately southwest of the Mercy Road-Interstate 15 interchange emerged as a practical alternative and will be examined more closely in further engineering and environmental studies.

In addition to pressure control valves, the project includes hydroelectric generation turbines to generate surplus electricity. The flow of water in the pipeline will spin hydroelectric turbines, producing electricity. This electricity surplus will be placed on the power grid, providing much-needed electrical power for San Diego County. 

## Temporary Facility will Fill Olivenhain Reservoir

Construction will begin this summer on the Del Dios Valve Vault and Temporary Pressure Control Facility. The design of the facility is complete and has been approved by the Water Authority's Board of Directors. This facility is on Pipeline 5, north of the San Dieguito Reservoir near the intersection of Via de las Flores and Aliso Canyon. It will enable the Water Authority to fill the Olivenhain Reservoir when the dam is completed next year. Construction of the facility is expected to be complete by early 2002. Once the permanent Rancho Peñasquitos Pressure Control and Hydroelectric Facility is complete, part of the temporary facility will stay in place while the pressure control valves will be removed for installation at the permanent Rancho Peñasquitos facility. 

## Tour the Olivenhain Site

Are you part of a group that would be interested in touring the Olivenhain Dam and project site? Bring your group out to see where this impressive, 318-foot high structure will be built. The Olivenhain Dam will stand taller than any other roller-compacted concrete dam in North America and has drawn interest from groups and individuals around the world. The site is completely excavated and is in the preparatory stages of construction for the dam.

**The Olivenhain Dam will stand taller than any other roller-compacted concrete dam in North America and has drawn interest from groups and individuals around the world.**

*See TOUR on page 4*



◀ *When completed, the Olivenhain Water Treatment Plant will deliver water through one of the Olivenhain Pipelines.*

*The Olivenhain Reservoir will be filled with water in 2002.*



**TOUR** *continued from page 3*



*Tour groups learn about Olivenhain site projects and watch construction progress.*

Tours of the Olivenhain project site can be scheduled for your group. The San Diego County Water Authority can provide opportunities for interested groups to learn more about the Olivenhain Dam, its innovative construction and how it works as part of the Emergency Storage Project.

Tours can be scheduled by calling the Emergency Storage Project toll-free information line at (877) 426-2010. 

*For more*  
**information**

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**about the San Diego County Water Authority's  
Emergency Storage Project or the  
Olivenhain Dam and Pipelines, please call  
(877) 426-2010 or visit our Web site at:  
[www.sdcwa.org](http://www.sdcwa.org).**



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*The San Diego County  
Water Authority is a  
public agency serving the  
San Diego region as a  
wholesale supplier of  
water imported from the  
Colorado River and  
Northern California. The  
agency works through its  
23 member agencies to  
provide a safe, reliable  
water supply to nearly  
three million San Diego  
County residents.*