



San Diego County
Water Authority

Capital Improvement
Program

MORENO • LAKESIDE



P I P E L I N E

PROJECT NEWSLETTER

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Spring 2004

Helix 6,7,8 Flow Control Facility Nears Completion

The 4.7-mile-long Moreno-Lakeside Pipeline will ensure the Water Authority can supply up to 80 million gallons per day of untreated water to the R.M. Levy Water Treatment Plant. Out of the 80 mgd, 40 mgd will be used by Helix Water District, 8 mgd by Otay Water District, 18 mgd by Padre Dam Municipal Water District and 14 mgd is reserved for future use.

The Moreno-Lakeside Pipeline Project is part of the Water Authority's Capital Improvement Program to enhance and increase the operational flexibility of its water delivery system.

After 14 months of construction, the Helix 6,7,8 Flow Control Facility is close to completion.

Located on a half-acre site along El Monte Road just northeast of the Lake Jennings Park Road intersection, the flow control facility is a critical component of the San Diego County Water Authority's Moreno-Lakeside Pipeline project. The 2100 square foot facility regulates and measures the flow of untreated water from the Water Authority's First Aqueduct to the R.M. Levy Water Treatment Plant. Water



The flow control facility, April 2004

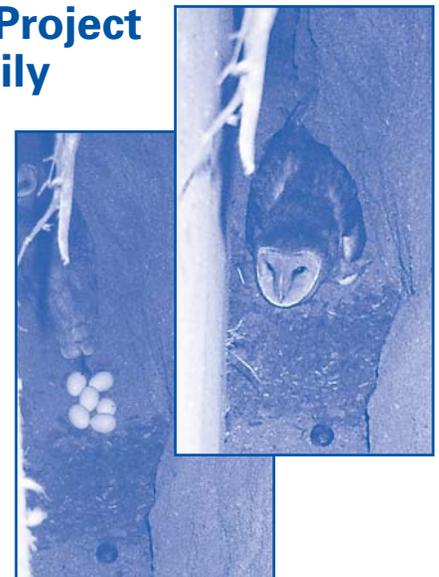
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Water Authority Teams up With Project Wildlife to Rescue Owl Family

Construction workers for the Moreno-Lakeside Pipeline project found something unusual while at work on March 8: a barn owl with her six eggs hiding underneath a section of the newly constructed pipeline along Moreno Avenue.

The mother barn owl had built her nest under the city of San Diego's 48-inch pipeline, which crosses over the new Moreno-Lakeside Pipeline. The city had requested the area be backfilled and protected so it could activate the pipeline and start transporting water from the San Vicente Reservoir.

While inspecting the shoring under the city's pipeline, a construction worker taking photographs was surprised to



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Project Team Profile: Carlos Ramirez, Inspector

The San Diego County Water Authority works closely with the Lakeside community to ensure that residents are informed about construction plans for the Moreno-Lakeside Pipeline project. To familiarize residents with our project team, each newsletter features the profile of a team member.

Carlos Ramirez is the quality assurance inspector for the Moreno-Lakeside Pipeline project.

Carlos' responsibilities on the project include performing visual welding inspections, dye penetrant testing, and verification of reinforcing steel for concrete. He inspects all materials delivered to the construction site and coordinates testing and inspections as required. He ensures that all construction, from pipe installation to revegetation work, is in compliance with Water Authority contract documents and specifications, and prepares Daily Inspection Reports.

Carlos sees teamwork as the key to success in working with the contractor, Archer-Western, and construction managers, R.W. Beck. "It's crucial to maintaining the quality of the product and staying faithful to the contract specifications. It takes a lot of patience, but I'm fortunate to work with some very talented and dedicated people who make my job a lot easier."

Carlos has worked on many projects with the Water Authority such as the Olivenhain Dam, Olivenhain Pipeline,

Vallecitos 9 flow control facility, and the Bradley Park Pipelines 3 & 4 Relocation. He also did inspection work on the Poway Pump Station, San Diego Convention Center and Petco Park as a consultant for Testing Services & Inspection, Inc. TS&I is a private quality assurance firm specializing in non-destructive testing methods.



Carlos Ramirez

Carlos is certified by the American Welding Society as a welding inspector, the International Conference of Building Officials as a structural steel inspector, and the American Concrete Institute as a concrete field technician. He has taken courses in liquid penetrants, magnetic particles, radiation safety, and ultrasonic testing.

Carlos stays busy outdoors camping and surfing, and spends free time with his four siblings and their children, as well as his 15-year old daughter, Skii, who he calls "the light of my life."



Carlos (right) inspects reinforcing steel for a concrete pipe encasement

If you have any questions about the project, please call the toll-free project information line at 1-877-682-WATER (9283) ext. 7002 or visit www.sdcwa.org.

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treated at the plant will serve customers of the Helix Water District, Padre Dam Municipal Water District and the Otay Water District.

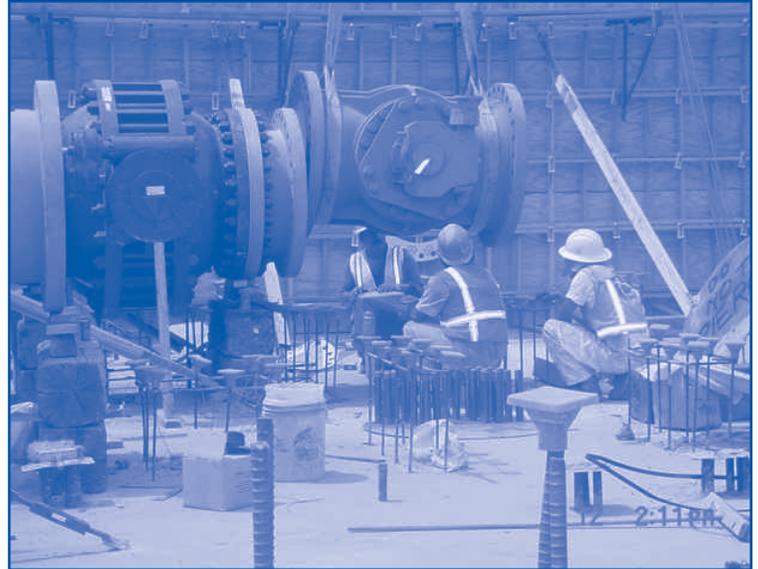
Neena Seshagiri, the resident engineer for the flow control facility, has been overseeing the project since August 2003. She coordinates communications between the contractor, T.C. Construction Company, Inc., and the Water Authority. Her main responsibilities are to oversee the contractor's work and ensure that it maintains compliance with the design plans and specifications. She supervises the day-to-day activities and closely monitors the construction schedule.

Although the flow control facility construction is not yet complete, a portion of the facility is already in use. The Helix 8 pipe was tied into an existing Helix Water District pipeline in December 2003 and involved 24-hour construction. The construction sequence included isolating a portion of the existing pipeline and draining it. Then a portion of the Helix Water District pipeline was cut and removed for the tie-in. A wye-shaped tie-in piece was installed, welded and encased in concrete for stability. The area was backfilled and the water supply was restored to the pipe. During the shutdown, a backup water supply was utilized so that residents' water supply would not be affected.

"It has been a very interesting project to work on," said Neena. "Working on the pipe tie-in to the existing Helix pipeline was probably the most challenging aspect of the project because once we started, we were 100% committed until finishing – it was round-the-clock construction for four days."

Throughout the design process, the Water Authority worked closely with the Lakeside Design Review Board to gather community input on aesthetics, building orientation and site improvements.

The flow control facility cost approximately \$3.9 million to design and build. Construction started in December 2002 and is expected to be complete by April 2004.



Workers install the plug valve inside the flow control facility

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see something staring back at him. He immediately contacted Water Authority officials who began making plans to relocate the eggs to a safer location.

Tim Cass, senior water resources specialist for the Water Authority, contacted both the California Department of Fish & Game and U.S. Fish and Wildlife Service, which gave him permission to move the eggs. Tim worked closely with Project Wildlife, a local non-profit volunteer organization that cares for injured, orphaned and sick native wildlife, and releases rehabilitated animals back into their natural habitats (www.projectwildlife.org). Project Wildlife made many of the arrangements for the transfer of the eggs to the Chula Vista Nature Center.

"Project Wildlife really made the relocation of the eggs happen," said Tim. "They have a special relationship with

Fish & Game that allows them to cut through red tape sometimes when it's necessary."

On March 29, three weeks after their discovery, the mother owl was gently shooed away from the nest by Tim, who carefully collected the eggs and delivered them to the Chula Vista Nature Center. At the center, the eggs were checked for viability and put into an incubator. Incubation is expected to take approximately three more weeks. Once they hatch, the surviving chicks will be hand-raised, taught hunting skills, and then released into the wild when they're old enough to survive on their own.

To help pay for the cost of raising the chicks, the Water Authority made a \$200 donation to Project Wildlife and would also like to thank the Chula Vista Nature Center for their help in rescuing the Moreno-Lakeside Pipeline owlet eggs.

Water-Wise Gardens are Fire-Wise Landscape

The devastation of last year's wildfire has raised awareness about the importance of landscaping in fire-proofing your home and property. Below are some tips for making your home safer from fire – while still conserving water.

- **Safeguard your property by establishing planting 'zones':**
 - *Zone 1* is the first 10 feet around the home - planting should be kept limited to ground covers and lawns
 - *Zone 2* is the next 10 - 30 feet around the home - trees and plants should be fire-resistant and widely spaced in this area
 - *Zone 3* is anything further out than 30 feet - regularly clear out vegetation that uses too much water and is potential fuel for a fire
- **Grow plants that retain high levels of moisture** near the perimeter of your property to minimize watering as well as diminish fuel for flames near your house.
- **Intersperse drought-tolerant plants with annuals and ground covers** to minimize watering as well as give great variety to your yard.

- **Water your lawn early in the morning and on less windy days** to ensure that water is being utilized as efficiently as possible. This also controls growth to minimize mowing and fertilizing.
- **Some of the best trees for fire-vulnerable areas** - as well as water conservation - include the American sweet gum, crape myrtle, and the mayten tree. There should be about 10 feet between tree canopies to minimize the threat of leaping flames.
- **Keep your irrigation system properly maintained** to detect water leaks or system malfunctions.

For more information about water conservation or water-wise gardening, call 858-522-6600 or go to www.sdcwa.org, then click on "water management," "conservation," and "Water Conservation Garden."

To see a display of fire-resistant plants in a fire-safe garden, visit the Firescape Demonstration Garden at Quail Botanical Gardens. For more information, call 760-436-3036 or visit their website www.qbgardens.org.



San Diego County
Water Authority

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The Water Authority is a public agency serving the San Diego region as a wholesale supplier of water. The Water Authority works through its 23 member agencies to provide a safe, reliable water supply to support the region's \$130 billion dollar economy and quality of life of 3 million residents.

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