

Zone 1

**Report to the Zone Commissioners
Design and Construction Projects
for Calendar Year 2011**

By Dusty Williams, General Manager-Chief Engineer
January 2012

GENERAL:

Throughout the District (all Zones) during Calendar Year 2011, the Design and Construction Division Issued Notices of Completion for four capital projects and three repair projects with a combined value of \$10 million. Surprisingly, despite the downturn in development activity, the District issued Notices of Completion for 20 developer-built projects with a total value of almost \$36 million during Calendar Year 2011. Many of these projects were "almost" finished at the end of the boom in 2008/2009 and are now being accepted as final punch-lists are finally completed. Two large projects in Zone 4, Paloma Wash in Menifee and the large storm drain associated with the "Sketchers" distribution facility in Moreno Valley accounted for nearly \$20 million of the \$36 million total.

With many project plan sets nearing completion at press time we expect to see a significant uptick in both the number of in-house CIP projects under construction and the total value to be constructed compared to Calendar Year 2011. We also have several other drainage projects being managed by individual cities with the District participating in funding.

Again, during this last year, bids for District construction projects have shown that general contractors are still making very competitive bids. The District will continue to try to leverage this dip in construction costs by pushing hard to complete designs and advertise projects while prices are low.

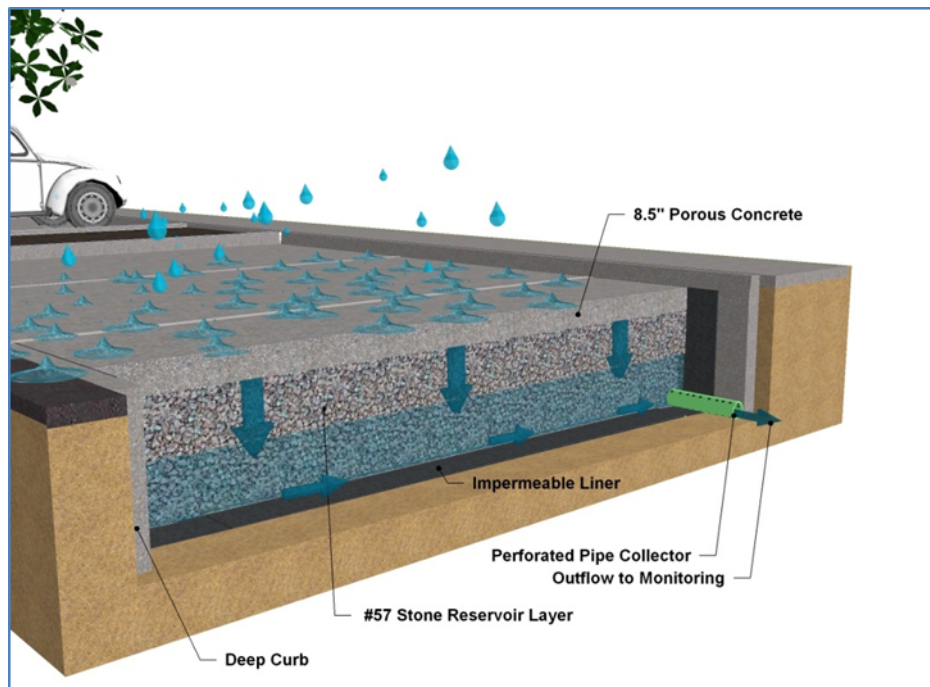
Additionally, we are also underway with a number of repair projects that require engineered drawings due to the severity of the damage or potential damage to our facilities. Deficiencies range from exposed and rusting rebar to undermined slope paving. Most of these projects were designed by outside consulting engineers. At press time for this report three separate projects along Palm Canyon Wash and Murrieta Line F repairs have been completed. The Arlington and La Sierra channel repairs are underway. Montgomery and Cabazon channel repairs are out to bid and another repair in the south Corona area will be out to bid in January. An additional project along the San Jacinto River Levee adjacent to the Soboba Tribe's holdings will follow early this year.

Calendar Year 2011 saw completion of significant changes at the District's office site. The completed Low Impact Development (LID) Retrofit Project consists of three parts converting the District's Market Street campus into a regional example of green development concepts. The upgraded facility will be used as a regional "green" training center for municipal employees, developers, engineers, and contractors throughout the Inland Empire and Orange County.

Currently, there are limited locations and opportunities to demonstrate the proper application of LID BMPs. This facility is uniquely designed to accomplish both demonstration and monitoring of the effectiveness of LID practices. This project is intended to facilitate the support and implementation of LID BMPs by municipalities and developers. The cost of this project was partially subsidized by a \$475,000 State Proposition 13 grant administered by SAWPA.



Centralized Monitoring Point for Low Impact Demonstration Project



Pervious Portland Cement Concrete

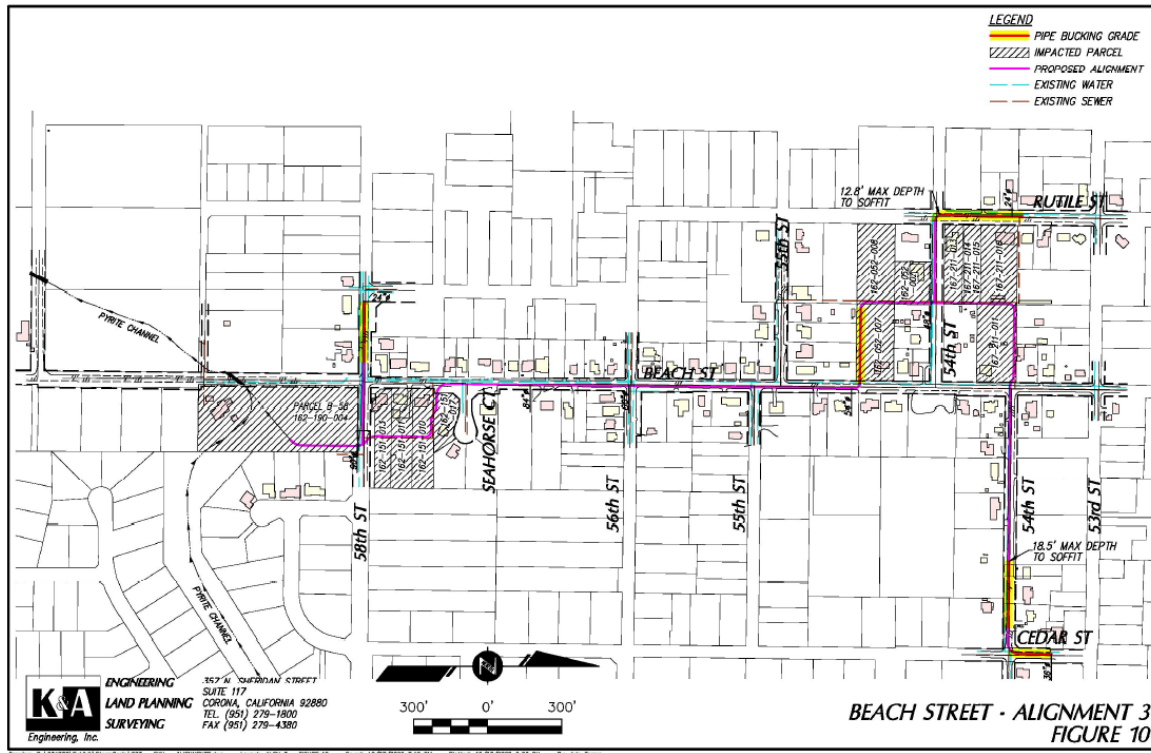
Following is a status summary of the capital improvement projects for Zone 1:

Current Year Capital Projects (Budgeted FY 2011/2012)

- **Santa Ana River Mainstem (Corps Project) (1-8-00011-00)** - The \$420 million Seven Oaks Dam in San Bernardino County, built by the Corps of Engineers in partnership with the San Bernardino, Riverside and Orange County Flood Control Districts, was officially completed on November 15, 1999 and turned over to the Local Sponsors for operation and maintenance in October 2002. In February and March 2011, the agencies listed above conducted a successful high pressure test of the Seven Oaks Dam outlet works to confirm the structure's design modeling and operational procedures. The test was the third scheduled test to ensure the proper and safe operation of the dam. Funding for this project in the District's FY 2012/2013 Budget is for administration, water quality and conservation, environmental compliance and local share (5.27%) of the maintenance responsibility for the Dam.
- **Arlington and La Sierra Channel Repairs (1-6-00020-00 and 1-6-00060-00)** - This project mends wear and tear damage to both existing channels. Repairs consist of replacement of slope paving and side inlets for La Sierra Channel and significant repair to the north wall of Arlington Channel to address spalling concrete and exposed, rusting rebar. Bid price was \$328,000. Construction is essentially complete at press time.
- **Monroe MDP – Monroe Channel Rehabilitation (1-8-00071-04)** - Replacement of the City of Riverside's existing channel from Magnolia Avenue to California Avenue with an underground reinforced concrete box at the request of the City of Riverside. Krieger and Stewart have begun with preliminary design and approved drawings should be completed by September 2012.
- **Pyrite Channel Bypass (1-8-00109-01)** - This project is an approximate 1,600-foot long low flow diversion drain within Pyrite Avenue to collect flows from the District's existing concrete-lined Pyrite Channel and deliver them to the District's existing concrete-lined Jurupa Channel that parallels Jurupa Road. The hydraulic capacity of the diversion drain will be dictated by geometric constraints at utilities, the railroad, and Jurupa Channel capacity downstream of its junction with this project. The project will not collect the entire Q₁₀₀ but will provide substantial relief to properties between Pyrite Street and Jurupa Avenue. The District is working with the Riverside County Redevelopment Agency to combine the storm drain project with their street replacement project to minimize cost and disruption to the public. Albert A. Webb Associates is the consultant preparing street plans and storm drain plans. Currently the project is in the plan check phase and approved design drawings should be completed by February 2012. EDA funding for the roadway improvement portion of the project appears to be in serious jeopardy. The District and City of Jurupa are pursuing alternate means to complete the project as soon as possible.
- **University MDP University Wash (1-8-00120-03)** - This project will extend the existing University Wash upstream of Spruce to Massachusetts Avenue. This project is in the preliminary stage and the District is currently working with the City of Riverside to

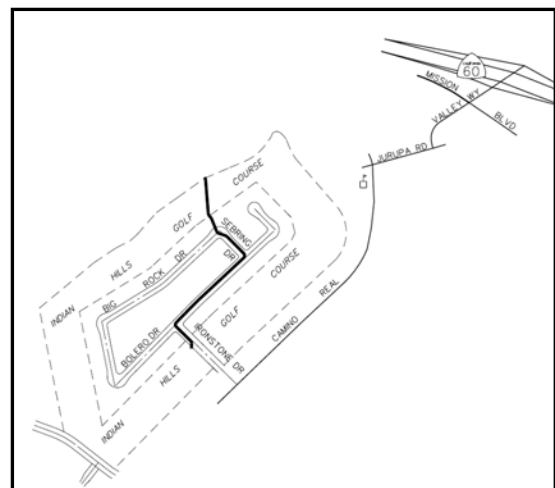
determine the limits of this project. Mapping for this project has been completed and the project design will be performed by a consulting firm beginning in 2012.

- Mira Loma – Beach Street Storm Drain (1-8-00137-01)** - This project is an underground storm drain extending upstream from the existing natural wash at 59th Street, north in Beach Street approximately 3,000 feet to 54th Street, then west in 54th Street to a sump in Rutile Street. The storm drain plans, prepared by K&A Engineering, Inc., are essentially complete; the last few months required extensive coordination with Jurupa Community Services District on the relocation design. The District needs permanent drainage easements on eight properties and is finalizing acquisition. We plan to begin construction in the first quarter of 2012.



Alignment 3

- Pedley Hills Bolero Drive Storm Drain (1-8-00138-01)** - This project is an underground storm drain extending upstream from an outlet at Ironstone Drive northeasterly to Sebring Drive and a collection point within the Indian Hills Country Club Golf Course. The construction of this \$500,000 project is complete and the Notice of Completion was filed in October 2011.



- **Mockingbird Canyon Levee Restoration (2-6-00180-00-25)** - This emergency repair to the existing Mockingbird Canyon Levee was necessitated by the December 2010 storms. Plans were completed in late January, and the reconstruction of nearly 1,000 lineal feet of rock levee and two invert stabilization structures was completed by late February 2011. The final contract amount was just under \$500,000.



The storm of December 2010 caused serious damage to Mockingbird Canyon Road

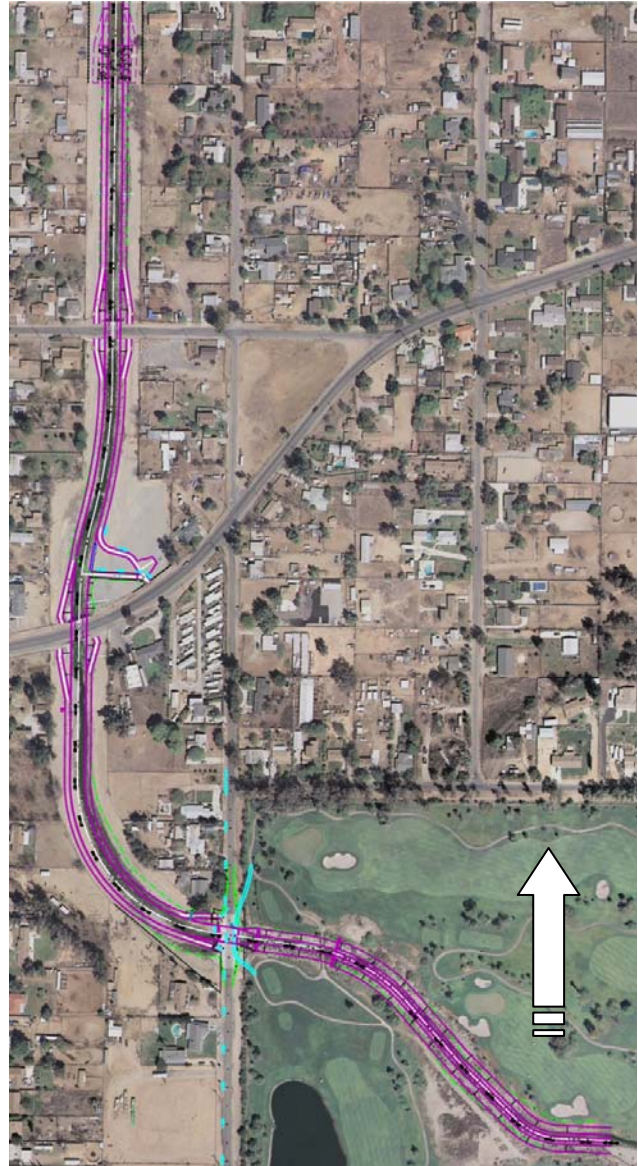


Repair completed in February 2011

- **Mockingbird Canyon Restoration (1-8-00185-01)** - Initially, the District planned to construct a debris basin on the south side of Van Buren Road to capture sediment being transported along Mockingbird Canyon wash. Upon further investigation, the best long-term solution appears to be the restoration and stream bank stabilization of Mockingbird Canyon wash. Rather than collecting the debris from these areas every year, this approach focuses on improving reaches of the wash so that they become stable and vegetated over time, hence, transporting less sediment. Our field investigation showed that some reaches of the wash are healthy, with good habitat, and with only a few invasive plants. However, some portions of the wash have no vegetation and erode quite heavily. Typically this erosion occurs downstream of private driveway culverts and road crossings. To address

this issue, it would be best to work toward restoring the natural wash, which would involve studying the wash as a whole, acquiring right of way, and stabilizing the wash over time. More detailed mapping from Mockingbird Canyon Dam to Pennington Place will be requested to support a more detailed analysis of the wash.

- **Day Creek Channel, Stage 6 (1-8-00250-06)** - This project is the last portion of the Day Creek Channel. This project extends the existing channel near Limonite downstream to Lucretia Avenue where it daylights into the existing channel in the Goose Creek Golf Course, within the Santa Ana River floodplain. This project needs to be constructed during the summer months and construction will begin in March 2012.



- **Southwest Riverside MDP Line G, G-1, F-1 (1-8-00319-00)** - This project should begin by February 2012. Once an agreement between the City of Riverside and the District is executed, the project will be assigned to an engineer on staff with the City of Riverside. The project will be a storm drain within Myers Street from an existing facility downstream at Lincoln Street and ends upstream at Victoria Avenue. Within Victoria Avenue, Line F-1 extends from the mainline southwesterly to Harrison Street and Line G-1 extends from the mainline northeasterly to Van Buren Boulevard.