

Zone 1

**Report to the Zone Commissioners  
Design and Construction Projects  
for Calendar Year 2010**

By Dusty Williams, General Manager-Chief Engineer

January 2011

**GENERAL:**

Throughout the District (all Zones) during Calendar Year 2010, the Design and Construction Division completed five capital projects with a combined value of \$11.7 million. In Calendar Year 2010 the District also inspected and issued notices of completion for 20 developer-built projects with a total value of almost \$14 million.

As with 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.

Eleven capital improvement projects in the FY 2010/2011 budget are scheduled to either commence construction or to purchase right-of-way in Calendar Year 2011. The total cost of these eleven projects exceeds 30 million dollars. Several other drainage projects are being managed by individual Cities with the District participating in funding.

Additionally, we are also underway with six 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. As all in-house resources are devoted to our capital improvement projects, these six projects are being designed by outside consulting engineers. The plans for all of these repair projects are essentially complete and we expect to advertise these for construction in the spring of 2011.

Calendar Year 2011 should also see completion of significant changes at the District's office site. The proposed Low Impact Development (LID) Retrofit Project is a three-part project. The completed project will convert 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 is being partially subsidized by a \$475,000 State Proposition 13 grant administered by SAWPA.

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

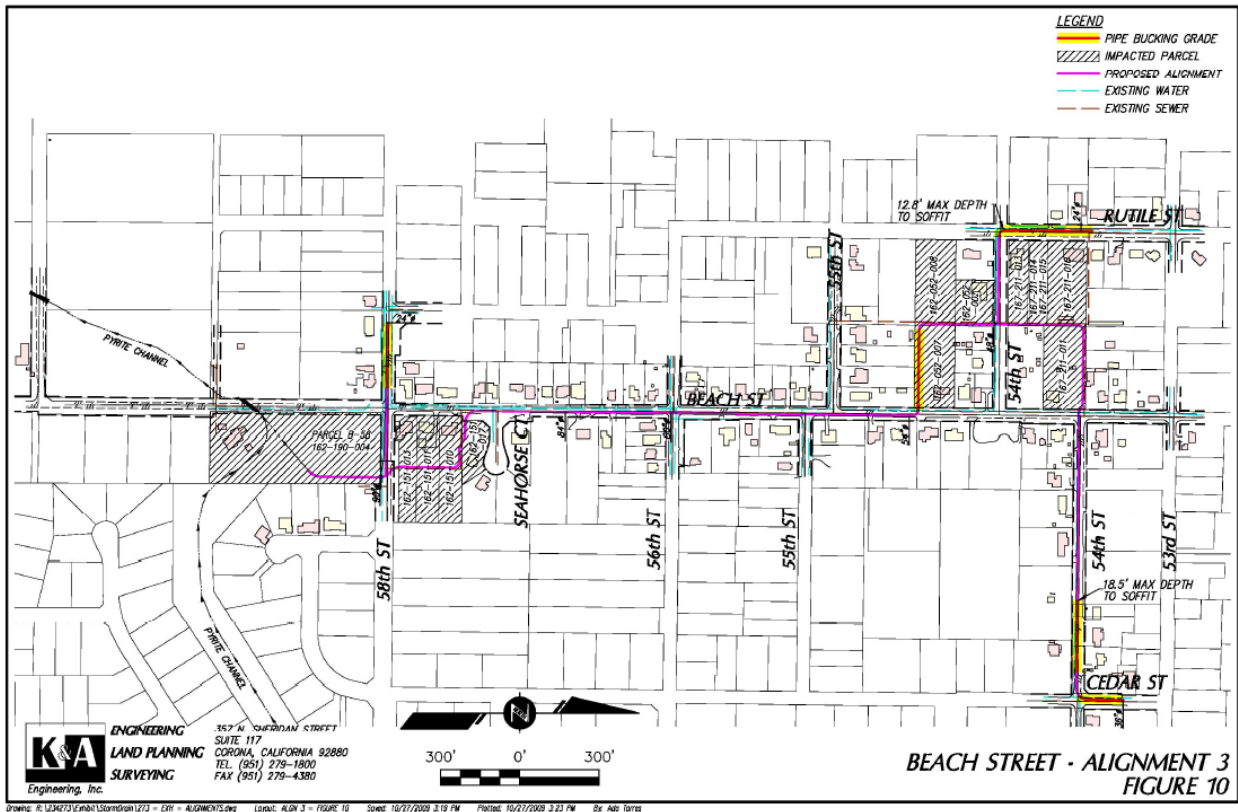
**Current Year Capital Projects (Budgeted FY 2010/2011)**

1. **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. Funding for this project in the District's FY 2010/2011 Budget is for administration, water quality and conservation, environmental compliance and local share (5.27%) of the maintenance responsibility for the Dam.
2. **Arlington Channel Repairs (1-6-00020-00)** - This is a repair project of the existing Arlington Channel that is currently underway. It required engineered drawings due to the severity of the damage to the north channel wall. Deficiencies range from exposed to rusting rebar.

In August 2010, Rick Engineering, Inc., an outside consulting engineer, submitted Arlington Channel Repairs 100% Plans, Specifications & Estimate submittal. However, as of November 22, 2010, questions regarding the structural stability of the stem wall are pending - to be answered by the engineer. The mylars and project specification book are the last tasks pending.

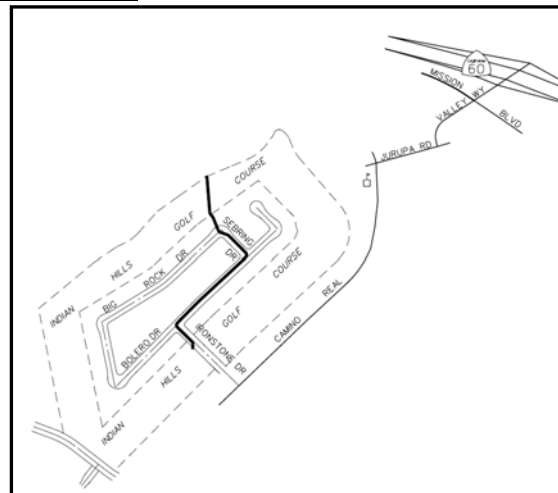
3. **San Sevaine Channel, Stage 7 (1-8-00050-07)** - This project was officially completed on September 23, 2004 and is in the FY 2010/2011 Budget solely to track San Sevaine Industrial Park Sales Tax Revenue annually forwarded to the District by the County of Riverside to partially offset project costs previously incurred by the District. FY 2011/2012 will be the last year this revenue will be forwarded. The project is a large concrete channel that extends from Galena Street upstream to San Sevaine Way.
4. **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. Mapping has been completed and the project design will be completed by a consulting firm in 2011.
5. **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 Q<sub>100</sub> 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 June 2011.

6. **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 59<sup>th</sup> Street, north in Beach Street approximately 3,000 feet to 54<sup>th</sup> Street, then west in 54<sup>th</sup> Street to a sump in Rutile Street. The storm drain plans, prepared by K&A Engineering, Inc., have been completed at the 90% stage. The District needs permanent drainage easements from eight properties. Acquisition is being negotiated by Paragon. It is likely that the right-of-way acquisition will be completed by the first quarter of 2011. However, the completion of the CEQA and Permit Application is pending on the submittal of the Biological Survey by Dudek. We are shooting for construction in the early summer of 2011.



Alignment 3

7. **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 negotiations to get the required easements took longer than expected, however, the design for this project is complete. The project is being advertised for bid at press time. The bid opening date is January 11, 2011 and construction should commence in May 2011.



8. **Belltown Market Street Storm Drain and Lateral B-1 (1-8-00148-01)** - This project is an underground storm drain extending from the Santa Ana River north in Market Street to the Riverside Canal, approximately 800 feet upstream of Rubidoux Boulevard. This six million dollar project began construction in late November 2009 and construction was substantially complete by December 2010. The storms of late December 2010 tested this new project and it performed well.

**Market Street Storm Drain - Outlet to Santa Ana River under construction January 2010**

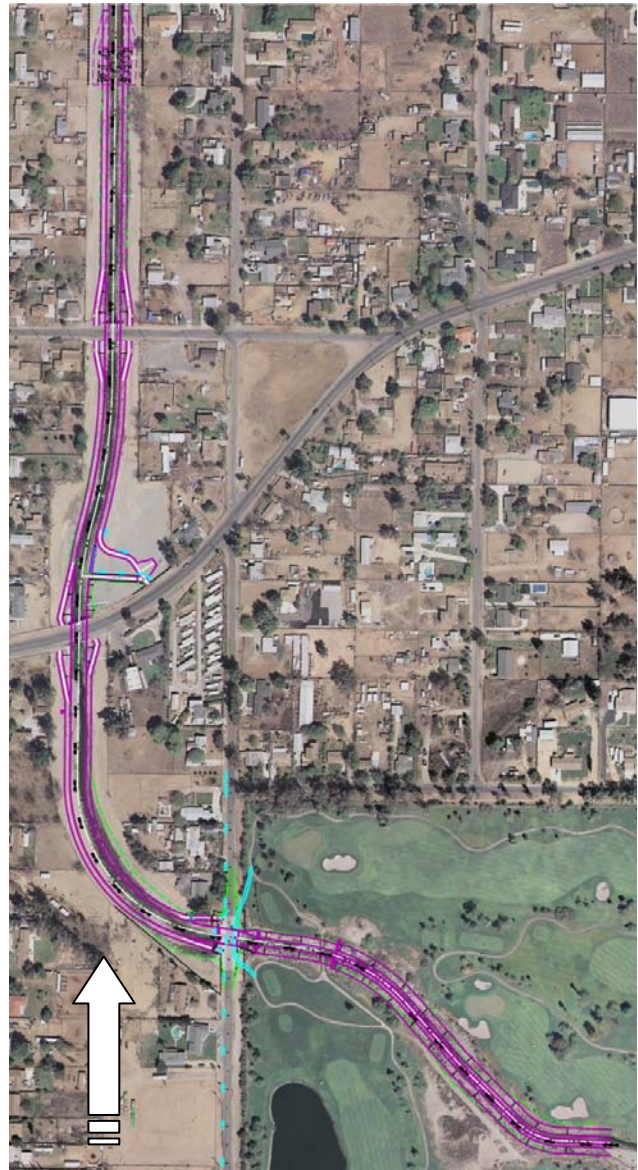


9. **Mockingbird Canyon Debris Basin (1-8-00185-01)** – Initially, the District planned to construct a debris basin on the south side of Van Buren Road to capture sediment being transported along Mockingbird Canyon wash. Upon further investigation, the best long-term solution appears to be the restoration 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.



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

10. **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. Progress this past year has been limited to work on the regulatory and permitting issues as well as fulfilling the requirements of the County's MSHCP. We have finalized the Lucretia crossing requirements in consultation with the Transportation Department. Completion of the plans and specifications will take about two to three man-months. This is a project that needs to be constructed during the summer months. If regulatory permits can be finalized, we are shooting for construction in spring/summer 2011.



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