

Zone 7

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

By Dusty Williams, General Manager-Chief Engineer
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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.

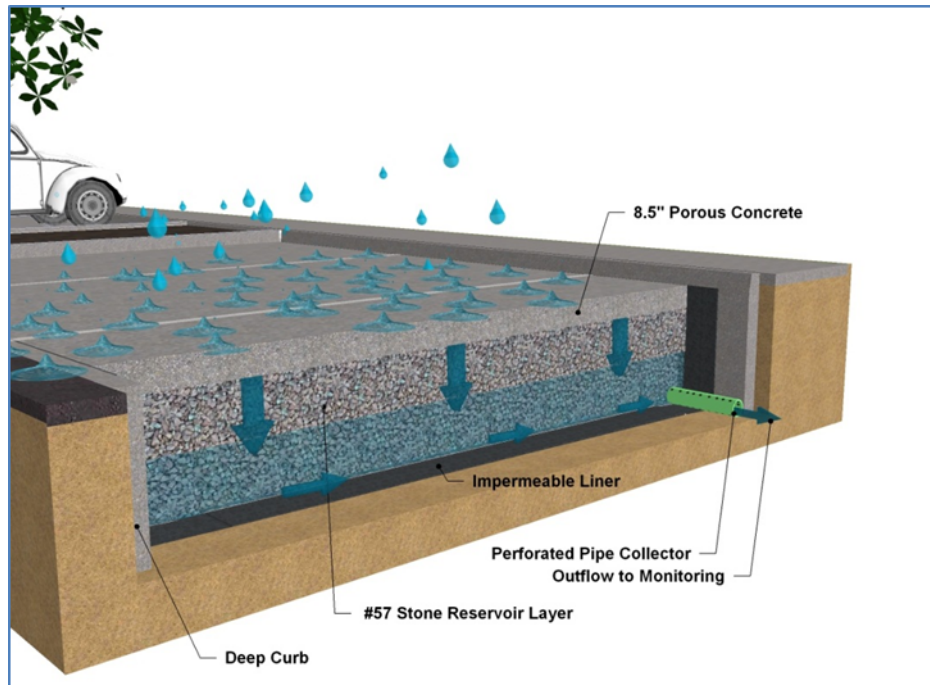
Additionally, we are also underway with a number of repair projects that require engineered drawings due to the severity of the damage or potential damage to our facilities. Deficiencies range from exposed and rusting rebar to undermined slope paving. Most of these projects were designed by outside consulting 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 7:

Current Year Capital Projects (Budgeted FY 2011/2012)

- **Murrieta Creek Channel - Corps of Engineers (7-8-00021-01)** - Murrieta Creek continues to be the District's highest priority project in Zone 7. Channel improvements to Murrieta Creek were first proposed by the District in its Master Plan adopted in 1987. The plan basically consisted of a soft bottom channel with concrete sideslopes. During the early 1990's the District worked with the local municipalities and citizens' groups to develop a new plan for Murrieta Creek that would include flood retention, recreation and environmental amenities. A revised plan meeting these goals was endorsed by the City Councils of Murrieta and Temecula in 1995.

In 1996, in an effort to solicit Federal funding for the project, the District requested the Senate Committee on Environment and Public Works authorize the U.S. Army Corps of Engineers to prepare a Reconnaissance Study of the Murrieta Creek Watershed. The authorization was made and the study recommended moving forward with a Feasibility Study.

Early in 1998 the Corps initiated an expedited effort to complete a Feasibility Study for a Murrieta Creek flood control project. The 2-year process included close coordination with the District and other agencies, as well as with the public at large. In September 2000, the Corps completed the Feasibility Study Report and forwarded it to both Division and Headquarters for review and approval. Corps Division in San Francisco supported the Los Angeles District's recommendation of "Alternative 6 - The Recommended Plan".



The Recommended Plan is similar to a conceptual plan approved by the local community and Cities in 1995. It includes soft channelization from the U.S.G.S. stream gauge southerly of Old Town Temecula, upstream to Tenaja Road in the city of Murrieta. In order to provide 100-year protection the plan provides a 250-acre detention basin to attenuate peak flows on District property bounded roughly by Santa Gertrudis Channel, Murrieta Creek, Elm Street and Jefferson Avenue. The entire basin site will provide flood attenuation benefits, while approximately 160 acres of the site would be planted for environmental restoration. Approximately 50 acres within the basin site (located to the west of Jefferson Avenue between Santa Gertrudis Creek Channel and Cherry Street) will be set aside as a community regional sports park. This park area would be separated from the remainder of the basin by a small berm, and would be flooded only at very infrequent intervals. The project also includes pedestrian/bicycle and equestrian trails throughout the full seven-mile length of the project.

On October 27, 2000 the Energy and Water Development Appropriations Act of 2001 was signed into law by the President. The Act specifically directed the Corps to proceed with detailed engineering design for Alternative 6 - The Recommended Plan, based upon the Murrieta Creek Feasibility Study report and accompanying environmental documents. More importantly, Congress committed to cost share on the entire cost of the then \$90 million

Recommended Plan. This will result in Federal funding in the amount of approximately \$60 million. The Act also included a \$750,000 FY 2001 Federal appropriation for the Corps to initiate the Pre-Construction Engineering and Design (PED) phase of the project. The Corps estimated that the PED effort would take approximately two years, at an estimated cost of \$6 million. These costs are to be shared with the Federal government on a 35% local/65% Federal share basis. On February 23, 2001 the Corps and District executed a PED cost sharing agreement for the project, and the engineering design phase was officially underway.

The overall project is broken into four phases: Phase 1 - channel improvements from near the Front Street/Highway 79 South junction upstream to First Street in Temecula; Phase 2 - channel improvements from First Street upstream to Winchester Road; Phase 3 - the detention basin/environmental restoration/sports park; and Phase 4 - channel improvements from the detention basin upstream to Tenaja Road in Murrieta.

The District secured and certified all necessary real estate for Phase 1 of the project in 2003 and the Corps advertised for construction bids, eventually awarding a construction contract in the amount of \$2.9 million to Oregon Mountain Constructors of Redding, California. Construction began in early December 2003 and was completed in December 2004. Unfortunately, the project sustained significant damage due to the winter rains of 2004. The Corps completed the repairs in May 2007.

The Corps continues to try to find a way to prioritize the project by evaluating the Benefit/Cost ratio. The Corps is striving to optimize the basin design to minimize the height of any embankments around the basin. The amount of flow released from the basin will dictate the channel geometry through Old Town Temecula. The basin discharge will also greatly affect the water surface elevation within the detention basin.

The District has the necessary rights of way for Phases 2 and 3 secured. This project continues to depend on the amount of Federal appropriations received in order to construct the remaining phases.

- **Wildomar MDP Lateral C, Stage 3 (7-8-00075-03)** - This project as shown in the District's Wildomar Master Drainage Plan is a concrete-lined open channel starting at the existing Stage 2 facility near Pasadena Street and extending north to Central Street along Bundy Canyon Wash. Given the environmental sensitivity of the Murrieta Valley Watershed, obtaining the necessary regulatory permits to construct the master plan facility is nearly impossible; therefore, the District is conducting a study to determine the feasibility of other types of drainage systems. Design work on the project is now on hold pending a revision of the Lateral C system.

The first portion of the feasibility study consisted of updating the hydrology for the Lateral C system to reflect the updated and more impervious general plan land use designations. The results from the updated hydrology indicated an increase in stormwater runoff exceeding the capacity of the existing system downstream. The alternatives that were analyzed include a detention basin at various locations upstream of the existing Lateral C, Stage 2 system and an underground drainage facility or a soft bottom channel with rock-lined sideslopes for the mainline. District staff met with the City of Wildomar to discuss the proposed alternatives and will be selecting a preferred alternative in the following months. The District is currently conducting a utility search along Central Street and White Street to determine if there are any major utilities that could potentially conflict with the installation of an underground facility.