

## **Aptos Esplanade Sewer Replacement Project**

Santa Cruz County Sanitation District

Project Director: Rachel Lather

Clean Beaches Grant Agreement # 06-299-550-1

September 2008 Annual Report

The goal of this project is to reduce the discharge of bacteria into coastal waters at Aptos/Rio del Mar Beach and Aptos Creek Lagoon. Aptos Beach/Rio del Mar Beach and the Aptos Creek Lagoon have had high bacteria levels and are frequently posted as unsafe for swimming. The water in the Lagoon is unsafe for human contact. Aptos Creek is the primary source of bacteria at the beach and lagoon, and the highest bacteria levels occur from Valencia Creek downstream. The County of Santa Cruz Environmental Health Services (EHS) monitored Aptos Creek and tributaries during 2005 in order to characterize sources of bacterial contamination in the creek, beach and lagoon. The human contribution of bacteria is about 2% in Aptos Creek and in the ocean near the creek mouth. This monitoring built on previous investigations by EHS, which included water quality testing, genetic testing to identify the sources of bacteria, and a health risk survey to measure the actual incidence of illness at Aptos/Rio del Mar Beach. In addition, approximately 4,262 feet of sewer main was video-tested in February 2006 after winter rainstorms. There were many areas where water was trickling into the pipe. Cracking (both circular and longitudinal), offset joints, chipping, and leaky lateral connections were evidence that sewer mains and laterals are leaking inwardly and outwardly.

The Santa Cruz County Sanitation District is using the Clean Beaches Grant to replace sewer lines in Aptos, near the waterfront at Aptos Esplanade. The objective of this work is to eliminate leakage from sewer lines with the most potential to impact Aptos Creek and Aptos/Rio Del Mar Beach. The project consists of replacing approximately 4,300 feet of sewer collection lines and replacing or rehabilitating 27 manholes. The collection lines are rigid clay pipe or pipes made of asbestos cement that were constructed in the 1960's. Some manholes are made of brick, and others are in a dilapidated condition. By replacing the sewer lines with plastic pipes and the manholes with new cement /mortar manholes, we anticipate that seepage from sewers in these areas will be eliminated. The grant agreement was finalized in April 2007. Activities in 2007 included completion of the monitoring plan, initiation of the quality assurance project plan (QAPP), completion of CEQA documents, and project planning and design. The project was designed by Harris and Associates Engineers with input from District engineers.

In 2008, the monitoring plan and QAPP were finalized, plans were completed, and the project was put out for bid through a formal procurement process in March. The bid was awarded to low bidder KJ Woods Company of San Francisco. The company later discovered a mathematical error in their bid and the bid was rescinded. The contract was then awarded to the second lowest bidder, California Trenchless of Hayward at a cost of \$1,777,777 not including contingencies and overhead. The Notice to Proceed for California Trenchless was issued in September 2008, and construction will begin in early October. The construction will be completed in early 2009. The grant agreement was amended in August 2008 to provide additional time for post-construction monitoring. As per the terms of the grant agreement, the Sanitation District has had a sign made crediting the SWRCB Grant contribution. It will be installed along the Esplanade prior to construction.

### Monitoring

The County Environmental Health Service is overseeing the monitoring for this effort. The Monitoring Plan and Quality Assurance Project Plan (QAPP) were modified in August and September 2008 at the request of SWRCB grant managers. Pre-construction monitoring began in February 2008. Monitoring will include Human Specific Bacterioides Analysis, which will be conducted using an Applied Biosystems Step One Real Time Quantitative Polymerase Chain Reaction (QPCR) System.

<b>Budgeted Total Project Cost</b>	<b>Prop 40</b>	<b>Match</b>	<b>Total</b>
Personnel Services		\$65,538	\$65,538
Professional & Consultant Services	\$15,000	\$235,810	\$250,810
Construction	\$475,000	\$1,125,500	\$1,600,000
<b>Total</b>	<b>\$490,000</b>	<b>\$1,426,348</b>	<b>\$1,916,348</b>

### Partnerships and Coordination

The Santa Cruz County Sanitation District will continue to coordinate activities with the County Public Works Department. Public Works is currently planning a project to reduce stormwater-related flooding at Aptos Esplanade. That project also has water quality benefits.



1 – Sign for Aptos Esplanade project