



# CITY OF SANTA BARBARA

## COUNCIL AGENDA REPORT

**AGENDA DATE:** February 9, 2010

**TO:** Mayor and Councilmembers

**FROM:** Creeks Division, Parks and Recreation Department

**SUBJECT:** Grant Funding For Canine And Microbial Source Tracking Project

**RECOMMENDATION:** That Council:

- A. Authorize the Parks and Recreation Director to enter into a grant agreement and accept grant funds in the amount of \$27,000 from the Water Environment Research Foundation for the Canine and Microbial Source Tracking Project; and
- B. Increase appropriations and estimated revenues by \$27,000 in the Creeks Capital Fund for the Canine and Microbial Source Tracking Project.

**DISCUSSION:**

The Water Environment Research Foundation is a national scientific research organization focused on wastewater and stormwater issues. The nonprofit organization operates with funding from subscribers and the federal government. Subscribers include wastewater treatment plants, stormwater utilities, and regulatory agencies. On July 6, 2009, the Creeks Division submitted a preproposal to the Water Environment Research Foundation's Unsolicited Research Program for the Canine and Microbial Source Tracking Project. In September 2009, the Creeks Division received notification that the project was selected for further consideration and submitted a full proposal on October 21, 2009. The Creeks Division was notified of the grant award in the amount of \$27,000 in January 2010.

The Canine and Microbial Source Tracking Project builds on efforts by the Creeks Division to identify and locate sources of human fecal contamination in storm drains that discharge to creeks and beaches in Santa Barbara. Previous efforts by the Creeks Division, using DNA-based techniques, have shown that some of the storm drains within the City are contaminated with human waste. Finding the precise location(s) where waste enters the storm drain network has been challenging, due in part to a relatively high cost per sample and three-week turnaround time for results. The goal of the Canine and Microbial Source Tracking Project is to collaborate by contract with Environmental Canine Services, LLC for an amount not to exceed \$12,000, and the University of California, Santa Barbara (UCSB)

in an amount not to exceed \$15,000 to test the use of canine scent tracking (sewage sniffing dogs) for locating sources of human-waste contamination in storm drains. Canine scent tracking for stormwater pollution is in its infancy but may prove to be a successful approach, due to a relatively low cost per sample and real-time results.

The project includes several elements, including the testing of scent tracking results against known locations with contamination (based on the Laguna Watershed Study conducted in 2008 by the Creeks Division). The dog's results will be corroborated with concurrent DNA-based testing performed by the laboratory of Dr. Patricia Holden of UCSB, with whom the Creeks Division has collaborated successfully for several years. Chemical testing will be carried out by the Creeks Division and El Estero Wastewater Laboratory. The project will also test the use of canines to detect physical locations of human waste entering storm drains, in areas that are known to be problematic based on previous results. Outreach will include a community forum where the public can learn more about sewage sniffing dogs and their potential to locate sources of contamination in storm drains.

#### **TIMELINE**

The project will involve 2 weeks of field work, to take place in June 2010. Laboratory and data analysis will be completed by Environmental Canine Services, LLC and UCSB by September 2010, and a final report will be submitted to the Water Environment Research Foundation in October 2010.

#### **BUDGET/FINANCIAL INFORMATION:**

The total cost of the project is \$30,000. The Water Environmental Research Foundation grant will provide \$27,000 toward contracts with Environmental Canine Services, LLC and UCSB to conduct canine and microbial source tracking. Measure B funds in the amount of \$3,000, to be used for chemical analyses, are included in the Creeks Division Capital Fund.

#### **SUSTAINABILITY IMPACT:**

This project is designed to identify locations of water quality pollutants. This will lead to improvement in water quality in the creeks and on the beaches.

**PREPARED BY:** Cameron Benson, Creeks Restoration/Water Quality Manager

**SUBMITTED BY:** Nancy L. Rapp, Parks and Recreation Director

**APPROVED BY:** City Administrator's Office