

# PRMD south parking lot retrofit with storm water best management practices to improve water quality and protect Paulin Creek

## Project Information Sheet

By Reg Cullen, PRMD  
565-2502

**Project Sponsors and funding:** Sonoma County Transportation Authority and Caltrans

**Lead Agency:** Permit and Resource Management Department (PRMD)

**Project:** PRMD south parking lot retrofit with storm water BMPs (best management practices)

### Project Scope:

- The overall intent of the project is to retrofit the 2-acre south PRMD parking lot with storm water BMPs to improve water quality and detain some water. The treatment BMPs will improve the quality of the storm water runoff by removing pollutants. The detention BMPs will decrease peak runoff from the parking lot to help protect nearby and downstream Paulin Creek from bank erosion and downcutting.
- The plan calls for the addition of three vegetated swales (situated in line between the fronts of parallel rows of parked cars), a fourth vegetated swale closer to the PRMD building, an underground detention chamber to detain peak discharge (then release it at a lower discharge), a series of rain barrel cisterns for water storage, and public areas to demonstrate proper installation of fiber rolls and geotextiles to prevent sediment transport. Other storm water treatment BMPs include a bioretention area (AKA rain garden), a non-proprietary wetland area, and a non-proprietary underground vault to prevent floating litter from entering the nearby Paulin Creek. Media filter devices with trees will also be installed at one or more locations along the perimeter of this heavily used parking lot.
- Conceptual Plan and Cost Estimate (See attached). We will develop engineered designs as funds become available. The current cost estimate is \$249,962.50.

### Project Facts:

- List Project Components (all measures approximate):

Bioswales-Four with a length of 600-ft acting as surface treatment for storm water runoff.

Detention- Underground detention bank of 500-LF. Reduces peak discharge helping to restore the pre-project hydrograph.

Permeable pavement-100-square yards. Acts as a source control reducing runoff from the parking lot.

Infiltration media-Two Filterra tree boxes designed to remove pollutants from an engineered media.

Bioretention (AKA rain garden)- This area acts as treatment for surface runoff by many processes including infiltration, evaporation, and adsorption.

Floatable vault This non-proprietary vault will catch litter, cigarette butts, etc. and prevent them from flowing into nearby Paulin Creek.

Cisterns- Up to five rain barrel cisterns will act to detain roof top runoff and minimize peak runoff of storm water from the parking lot.

Covered trash enclosure- The current dumpster at PRMD is not covered. Building a covered dumpster will act as a source control for storm water runoff by preventing rain water from entering the dumpster.

Fiber roll, silt fence, and geofabric display -An area of the grounds in the parking lot will be set aside as a demonstration area for construction BMPs showing the proper installation and maintenance of those common BMPs.

Signage and public outreach-We anticipate one large sign explaining the storm water treatment and detention features. Smaller signs will be located at individual BMPs. PRMD will produce a brochure to allow the public on self-guided tours. Also, staff at PRMD will provide personal guided tours to assist educating the general public, contractors, developers, agency representatives, etc. on the installation, maintenance, and functioning of storm water BMPs.

**Project Schedule:**

<b>Project Development Phase</b>	<b>Begin</b>	<b>End</b>
Design	Ongoing	April 30, 2009
Construction	May 1, 2009	December 2010

**Project Funding:**

All funding is from the State of California.

<b>Phase</b>	<b>Measure M Funding</b>
Design	\$48,662.50
Construction	\$104,600.00
Contingency *	\$25,162.50
<b>Total</b>	<b>\$249,962.50</b>

Attachments: 1) Conceptual design of BMP installations and 2) line items for project funding  
Attachment A 2/2

\* Includes up to a maximum of \$10,000 applied to long term maintenance

Supporting maps are on file at:

County of Sonoma Board of Supervisors Office  
575 Administration Drive, Room 100A  
Santa Rosa, CA 9540

They can be viewed and/or copies requested during regular business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday. Call (707) 565-2241 for more information.