



**City of Santa Barbara
PARKS AND RECREATION COMMISSION REPORT**

DATE: February 27, 2013
TO: Parks and Recreation Commission
FROM: Creeks Division, Parks and Recreation Department
SUBJECT: Storm Water Infiltration Demonstration Projects

RECOMMENDATION: That the Commission receive a report on the Creeks Division's Storm Water Infiltration Demonstration Projects.

DISCUSSION:

Background

Storm water and urban runoff from impervious surfaces are major sources of surface water quality degradation. Runoff from parking lots often contains pollutants including hydrocarbons, fine sediments, polycyclic aromatic hydrocarbons (PAHs), metals, nutrients, and additional pollutants that are toxic to aquatic organisms and potentially harmful to human health when untreated.

To address the problem of pollutants being carried directly to the creeks, estuaries, and ocean through storm water runoff, the reduction of impermeable surfaces throughout the City will allow storm water runoff to infiltrate into the soil by mimicking pre-development conditions. This can be done by retrofitting existing infrastructure using Low Impact Development (LID) designs that treat storm water runoff close to the source. By implementing LID projects throughout the City, the problem of non-point source pollution can be addressed. Infiltrating water also provides groundwater recharge and flood protection benefits.

In May 2011, the Commission reviewed plans for a Storm Water Infiltration Demonstration Project in the MacKenzie Park parking lot. The design for the MacKenzie Park parking lot included a combination of asphalt roadways and permeable paver parking stalls to capture, treat, and infiltrate storm water runoff from the site. That project was completed in October 2011.

In October 2012, the Creeks Division was awarded a Proposition 84 Storm Water grant to construct Storm Water Infiltration Demonstration Projects at Oak Park, the Westside Neighborhood Center, and Stevens Park. These projects are scheduled to begin construction in May 2013.

Project Description

The project includes the removal of asphalt and installation of permeable pavers to treat storm water and urban runoff through infiltration at Oak Park (main parking lot, stage area, picnic area, and tennis court parking lot), the Westside Neighborhood Center parking lot, and the Stevens Park parking lot.

The primary purpose of the pavers is to capture and treat polluted storm water and incidental urban runoff through passive infiltration without compromising the existing uses of the parking lots or surrounding facilities. A secondary purpose is to serve as a demonstration of how to retrofit existing parking lots throughout the City to improve water quality while minimizing the cost of construction and post construction maintenance. These designs will demonstrate a retrofit that complies with the City's Storm Water Management Program requirements of treating the volume generated from a one-inch, 24-hour storm event.

Design

The projects include the following design elements:

- Removal of approximately 100,000 square feet of existing asphalt.
- Installation of approximately 85,000 square feet of permeable pavers.
- The remaining ~15,000 square feet will be planted with native plants and/or covered with mulch.
- Pavers will be outlined with a six-inch wide concrete ribbon border at grade.
- Infiltration basins under the permeable pavers will have the capacity to capture and infiltrate one inch of rainfall every 24 hours in compliance with the City's Storm Water Management Program.
- Installation of new swing gates at Stevens Park and Oak Park at Tallant Road.
- Installation of new picnic tables Oak Park.
- New bicycle parking in Oak and Stevens Parks.
- To comply with current parking standards and legal requirements, restriping the parking lots will result in the loss of one parking space at Stevens Park, one parking space at the main Oak Park parking lot, and one space at the Westside Neighborhood Center.
- All existing trees in the parks will remain.

Plans for the Oak Park main parking lot, stage area, and picnic area are attached to this report to illustrate the basic project design.

Timeline

The City Council will consider approving the project construction contract on March 12, 2013. Construction is planned to begin in May 2013 and is expected to last through October 2013. The construction period was chosen to avoid the rainy season. In order to avoid disrupting summer festivals, construction in the main parking lot, stage area, or picnic area in Oak Park will not begin until August. The Westside Neighborhood Center, Stevens Park, the Oak Park tennis courts, and the Oak Park wading pool will remain open during normal operating hours throughout the construction period. The Creeks Division is working closely with Parks and Recreation Division staff to maintain public access to the parks while the project is under construction.

Budget

The estimated cost to construct the upcoming Storm Water Infiltration Demonstration Projects is approximately \$2,227,642. The Creeks Division received a \$1,889,299 grant from the State Water Resources Control Board through the Proposition 84 Storm Water Grant Program. The balance of funds for this project will come from the Creeks Division Capital Fund.

ATTACHMENTS: Oak Park Storm Water Infiltration Demonstration Project Plans

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

SUBMITTED BY: Jill Zachary, Assistant Parks and Recreation Director

APPROVED BY: Nancy L. Rapp, Parks and Recreation Director