



# Green Infrastructure & Stormwater Management CASE STUDY

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## El Cerrito City Hall

**Location:** 10890 San Pablo Avenue, El Cerrito, CA

**Client:** City of El Cerrito

**Design Firm(s):** Carducci & Associates, Inc.

**Landscape architect/Project contact:** Wesley Bexton, Carducci & Associates, Inc.

**Email:** [wesley@carducciassociates.com](mailto:wesley@carducciassociates.com)

**ASLA Chapter:** None



Photo: Carducci & Associates

### Project Specifications

**Project Description:** The LEED (R) certified El Cerrito City Hall landscape includes a public plaza and educational landscapes of native, drought-tolerant plants that demonstrate California's diverse woodland, chaparral, riparian, meadow, and vernal pool plant communities. The plaza allows space for community and civic events, and creates opportunities for environmental education. Stormwater in El Cerrito drains to creeks and the San Francisco Bay.

To lessen the impact on these waterways, native plantings recycle building and site run-off as irrigation water, and minimize the site's impact on the municipal storm drainage system through water filtration, storage, and water table recharge within the City Hall landscape areas.

Structural soil at and between street and plaza trees creates root growth areas, and provides large water retention areas for native maples and sycamores to draw from and lessen irrigation demands. Biobasins of native reeds, non-mowed grasses, and perennial plants filter surface run-off and retain water for infiltration and evapotranspiration prior to release. A rain garden and native plant creekscape adjacent to the city hall plaza celebrates the creeks of the east bay and storm water in the landscape, treats and retains run-off from adjacent paving and the building roof.

**Project Type:**

Government complex

Part of a redevelopment project

**Design features:** Bioretention facility, rain garden, bioswale, curb cuts, structural soil, and filtration soils for water retention and ground water re-charge. Roof water daylight into rain gardens and bioswales. Parking lot areas are filtered and retained in bioswales.

**This project was designed to meet the following specific requirements or mandates:**

Local ordinance, developer/client preference, LEED, local water ordinances, C3 (stormwater) regional ordinances

**Impervious area managed:** 5,000 sq/ft to 1 acre

**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** less than 5,000 sq/ft. There was no significant existing green/open space on this site prior to this project; it was an asphalt lot with portable buildings on it that drained overland to the street.

**The regulatory environment and regulator was** supportive of the project.

**Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements?** Useable green and public space, native planting, irrigation system efficiency. Open space credit (SS5.2) was completed successfully in pursuit of LEED certification, as were water reduction credit WE1.1, and non-roof heat island credit SS7.1. A public fountain that references the area's creeks is designed to be beautiful as a dry fountain, so that the city can leave it off as a sculptural element, important in California where water is a resource frequently in short supply.

**Cost & Jobs Analysis**

**Estimated Cost of Stormwater Project:** \$500,000-\$1,000,000 (Public funding: Regional, local)

**Was a green vs. grey cost analysis performed?** No

**Number of jobs created:** Not available

**Job hours devoted to project:** Not available

Planning and Design: Not available

Construction: Not available

Annual Maintenance: Not available

## Performance Measures

### Stormwater reduction performance analysis:

Stormwater reduction was not formally quantified. No physical connections to the storm drain system are made from the city hall landscape areas. Two 3" through-curb overflows are provided in case the rain garden or structural soils flood (typically one each per planting area). Stormwater treatment credit (SS6.2) was completed as part of LEED submission.

**Community & economic benefits that have resulted from the project:** Enhanced San Pablo streetscape, provides a civic gathering space that did not previously exist, for civic presentations, art shows, and small farmers markets. The plaza opens onto and incorporates public waiting space near and at bus stops that is enjoyable and less "urban" than areas typically found along the San Pablo corridor. People waiting for the bus hang out on seating built into the dry/wet fountain at the city hall plaza, it has created a more relaxed area that residents seem to enjoy. The streetscape portion (on Main Ave, see a google map or project page listed under web links) also incorporates the public safety / police building, and helps make it feel more connected to the public, and less intimidating/sterile.

## Additional Information

### Links to images:

[http://www.carducciassociates.com/2011/projects/civic/el\\_cerrito\\_city\\_hall/el\\_cerrito\\_city\\_hall.php](http://www.carducciassociates.com/2011/projects/civic/el_cerrito_city_hall/el_cerrito_city_hall.php)

See description of El Cerrito work with EPA. Also see "event photo gallery" at bottom of page.

The city hall landscape has been used as a launching point for the city's further/expanding street greening and rain garden efforts, including larger creek-like rain gardens along public transit (BART train) right-of-ways. EPA, state water, and local/regional storm water tours and seminars have included the city hall's landscape as an example of a well-functioning treatment and retention system.