



## Cavallo Point Methods

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This case study was produced in 2010 as part of the Landscape Architecture Foundation's *Landscape Performance Series* pilot. Firms submitted their projects, and LAF staff worked with firm representatives to document the project and its environmental, social, and economic benefits.

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The full case study can be found at:

<https://landscapeperformance.org/case-study-briefs/cavallo-point>

## **Cavallo Point Methodology for Landscape Performance Benefits**

- ***Reduced the total area of the initially-proposed building footprint by 30% by reducing the number of proposed new units from 18 to 14.***

Local community acceptance of the project required significant efforts in public outreach and community participation. In response to community concerns about traffic impacts, the project team worked closely with the National Parks Service to develop the smallest economically feasible project for the property with minimal impacts on the land. Ultimately, the team devised a plan that reduced the number of allowable new units from 18 to 14, a reduction of 30%.

- ***Reduced water consumption for irrigation by 50%, from 1.6 million gallons to 826, 400 gallons each year.***

The 50% irrigation reduction was determined from a baseline landscape consuming 1,657,514 gallons and reduced to 826,429 gallons of total water applied annually. These estimates are based on the LEED submittal documentation. To achieve this reduction, low-flow irrigation systems were installed throughout the site and weather sensors were used so that the irrigation system does not turn on in times of precipitation.

- ***Saves an additional \$25,000 in annual water costs annually through the restoration of native coastal scrub habitat, including habitat for the endangered Mission blue butterfly.***

A drought tolerant dwarf grass mix was used in limited zones to replace highly irrigated lawn areas. Mown lawn was used minimally at particular gathering areas or vantage points. The water cost savings were determined by a baseline cost of \$1,852/acre that was reduced to \$926/acre over 27 acres of open space, totaling approximately \$25,000 annually. These figures came from a combination of the LEED submittal documentation and water bills provided by the developer.

- ***Saved an estimated \$140,000 in earthwork costs during construction by using the building pads of 14 demolished non-historic buildings to support new structures.***

The earthwork costs for a building pad on a sloped site such as Cavallo Point are calculated from the average pad size of 2,200 sf. Constructing a building pad typically involves a 4-ft depth of fill and off-haul, which costs \$30 per cubic yard:

$$\begin{aligned} 2,200 \text{ sf} * 4 \text{ ft} &= 8,800 \text{ cf} = 326 \text{ cy per pad (1cy} = 27\text{cf)} \\ 326 \text{ cy/pad} * \$30 / \text{cy} * 14 \text{ pads} &= \$136,900 \text{ total} = \sim\$140,000 \end{aligned}$$

- ***Created 253 new jobs for the community.***
- ***Created a new revenue stream of \$8.5 million annually for the National Parks Service through visitor spending.***

This information is from Ted Lieser of Equity Community Builders, the developer of Cavallo Point: "Cavallo Point actually created FTE (Full Time Equivalent) jobs; The revenue stream for 2009 was \$8.5 million."