



Swales Reduce Runoff

Background Information

Swales are densely vegetated drainageways with low-pitched slopes that collect and slowly convey runoff. They promote infiltration and reduce stormwater runoff volumes. Grass swales can replace curbs, gutters and storm sewer systems.

Grass swales typically cost less to construct than curbs, gutter or storm sewer systems. Using grass swales can also reduce the size and expense of constructing and maintaining downstream stormwater management facilities. However, swales require some maintenance, which may incur some additional cost.

Community Strategies

- Consider revising street standards, where appropriate, to encourage uncurbed roads, installing grass swales instead.
- Consider requiring swales in and around parking lots.

Examples

Please see backside for examples.

At a Glance

- Vegetated swales can often replace curbs, gutters and storm sewer systems.
- They promote infiltration and reduce stormwater runoff volumes.
- Swales can be a less expensive alternative to traditional curbs, gutters and stormwater management systems.

Swales Promote Infiltration



For More Information

[California Stormwater Best Management Practice Handbooks by the California Stormwater Quality Association \(CASQA\) www.cabmphandbooks.com](http://www.cabmphandbooks.com)

[Fact Sheet – Dry and Wet Vegetated Swales, Federal Highway Administration
www.fhwa.dot.gov/environment/ultraurb/3fs10.htm](http://www.fhwa.dot.gov/environment/ultraurb/3fs10.htm)

[Truckee Meadows Regional Stormwater Quality Management Program Structural Controls Manual
http://www.cityofreno.com/Index.aspx?page=1007](http://www.cityofreno.com/Index.aspx?page=1007)

[U.S. Environmental Protection Agency, Vegetated Swales: Stormwater Technology Fact Sheet
www.epa.gov/owm/mtb/vegswale.pdf](http://www.epa.gov/owm/mtb/vegswale.pdf)

Ventura Countywide Stormwater Quality Management Program Technical Guidance Manual for Stormwater Quality Control Measures, July 2002

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