



# PROJECT DESIGN GUIDANCE FOR LOW IMPACT DEVELOPMENT

**City of Santa Maria**  
**Department of Utilities/Regulatory Compliance Division**  
805-925-0951, ext. 7270 – (FAX) 805-928-7240

The City of Santa Maria is in the process of incorporating Low Impact Development (LID) in new and redevelopment projects as required by the Central Coast Regional Water Quality Control Board. The City encourages your participation in this effort.

LID is a storm water management strategy that emphasizes the use of natural site features together with small-scale storm water facilities to detain or retain the storm water on site and allow for the natural percolation back to groundwater. LID can eliminate or reduce pollutants in storm water and minimize storm water runoff from the site, thus conserving valuable water resources. LID design incorporates both site planning principles and structural practices to achieve site performance objectives. The goal is to maintain the pre-project conditions for storm water runoff rate and volume.

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Project Type (e.g. residential, commercial, industrial): \_\_\_\_\_

Project Description: \_\_\_\_\_

Assessor's Parcel number(s): \_\_\_\_\_ Project Size: \_\_\_\_\_

Applicant Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone(s): \_\_\_\_\_ Email: \_\_\_\_\_

In addition to the guidance in this document, the following categories are subject to the Design Standards in Attachment 4 to the State General Permit for Storm Water Discharges found on page 6 of this document. Check all of the following boxes that apply to this project.

- |   |  |
|---|--|
| <input type="checkbox"/> 100,000 sq. ft. commercial development | <input type="checkbox"/> Restaurant  |
| <input type="checkbox"/> Automotive repair shop                 | <input type="checkbox"/> Parking lot 5,000 sq. ft. or more or with 25 or more parking spaces |
| <input type="checkbox"/> Retail gasoline outlet                 |  |

## Clearing and Grading

A significant part of Low Impact Development is integrating existing site characteristics with the project design in ways that help minimize environmental impacts. Site features that provide opportunities to reduce storm water runoff include preserving protected areas, setbacks, easements, trees, vegetation, riparian areas, soils, and topographic features.

**Assess the existing site characteristics and explain how the following measures will be incorporated. If any of the following measures are infeasible, explain why and describe alternative measures that will be used to achieve equal or greater effectiveness.**

### 1. Conserve Natural Areas

- a. Concentrate or cluster development on portions of site, leaving the remaining land in a natural undisturbed condition.
- b. Limit clearing and grading of native vegetation to build lots, allow access, and provide fire protection.





**2. Design site to minimize directly connected impervious areas from flowing to the storm water conveyance system.**

- a. Direct flows from roof drains to vegetated areas.
- b. Direct flows away from paved areas to stabilized vegetated areas.
- c. Promote natural vegetation in parking lot islands and other landscaped areas.
- d. Use infiltration planters to percolate rain water.
- e. Construct a “green” roof on all or part of the structure.
- f. Install a tree box filter.
- g. Plant a rain garden.
- h. Construct a vegetated swale.
- i. Utilize a filter strip



**Inlet Structure  
Downey, CA**



**Bioretention Cell  
Caltrans Headquarter San Diego, CA**



## Outdoor Material Storage Areas

1. Materials must be: 1) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar structure that prevents contact with runoff or spillage to the storm water conveyance system; or 2) protected by secondary containment structures such as berms, dikes, or curbs.
2. The storage area must be paved and sufficiently impervious to contain leaks and spills.
3. The storage area must have a roof or awning to minimize collection of storm water within the secondary containment area.

## Trash Storage Areas

1. Trash container areas must have drainage from adjoining roofs and pavement diverted around the area.
2. Trash container areas must be screened or walled to prevent off-site transport of trash.

## 100,000 Square Foot Commercial Developments and Automotive Repair Shops

1. Loading/Unloading Dock Areas
  - a. Cover loading dock areas or design drainage to minimize runoff and runoff of storm water.
  - b. Direct connections to storm drains from depressed loading docks or truck wells are prohibited.
2. Repair/Maintenance Bays
  - a. Repair/maintenance bays must be indoors or designed in such a way that doesn't allow storm water runoff or contact with storm water runoff.
  - b. Design a repair/maintenance bay drainage system to capture all washwater, leaks, and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited.
3. Vehicle/Equipment Wash Areas
  - a. Area must be self-contained and/or covered;
  - b. Area must be equipped with a clarifier or other pretreatment facility.
  - c. Area must be properly connected to the sanitary sewer.

## Restaurants (where land area for development or redevelopment is $\geq 5,000$ square feet)

1. Equipment/Accessory Wash Areas
  - a. Include in project plans an area for the washing/steam cleaning of equipment and accessories.
  - b. Area must be self-contained, equipped with a grease trap, and properly connected to the sanitary sewer.
  - c. If wash area is outdoors, it must be covered, paved, have secondary containment, and be connected to the sanitary sewer.

## Retail Gasoline Outlets (where land area for development or redevelopment is $\geq 5,000$ square feet) and Automotive Repair Shops

1. Fueling Area
  - a. Cover fuel dispensing area with overhanging roof structure or canopy with minimum dimensions  $\geq$  the area within the grade break. Canopy must not drain onto fuel dispensing area, and canopy downspouts must be routed to prevent drainage across the fueling area.
  - b. Fuel dispensing area must be paved with smooth impervious surface such as Portland cement concrete; asphalt concrete is prohibited.
  - c. Area must have a 2% to 4% slope to prevent ponding and must be separated from the rest of the site by a grade break that prevents runoff of storm water.
  - d. At a minimum, concrete fuel dispensing area must extend 6.5' (2 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1' (0.3 meter), whichever is less.

## Parking Lots

1. Parking Area Design
  - a. Reduce impervious land coverage of parking areas.
  - b. Infiltrate or treat runoff.
2. Design to Limit Oil Contamination and Perform Maintenance
  - a. Treat to remove oil and petroleum hydrocarbons at parking lots that are heavily used (e.g. fast food outlets, lots with 25 or more parking spaces, sports event parking lots, shopping malls, grocery stores, discount warehouse stores).
  - b. Ensure adequate operation and maintenance of treatment systems particularly sludge and oil removal, and system fouling and plugging prevention control.