

Most **businesses in RI** have large, impervious surfaces (parking areas, rooftops and sidewalks) that cause **stormwater to run off** into local waterways. As a local business owner, **you** have an **important role** in helping to manage this problem in the Ocean State.

Here's how.

There is a cost-effective way for RI businesses to control flooding, improve site aesthetics, and manage stormwater.

**It's called LID
(Low Impact Development).**

CLEAN WATER: IT'S YOUR BUSINESS

AVOID. REDUCE. MANAGE.

Stormwater runoff is the main cause of pollution to RI waters. Runoff contributes to flooding, closed beaches and is the leading threat to our water resources. **Low Impact Development (LID)** solutions can help address these issues by capturing, slowing and infiltrating runoff on site. Because most LID techniques are easy to implement, LID can help reduce infrastructure costs *and* protect the environment. The premise is simple: **avoid** disturbing natural site conditions; **reduce** impervious surfaces and **manage** stormwater runoff with these LID alternatives at your site.



www.ristormwatersolutions.org

Additional Resources:

RI Stormwater Design and Installation Standards Manual and supporting guidance:

<http://www.dem.ri.gov/programs/benviron/water/permits/ripdes/stwater/t4guide/desman.htm>

RI LID Site Planning and Guidance Manual

<http://www.dem.ri.gov/programs/bpoladm/suswshed/pdfs/lidplan.pdf>



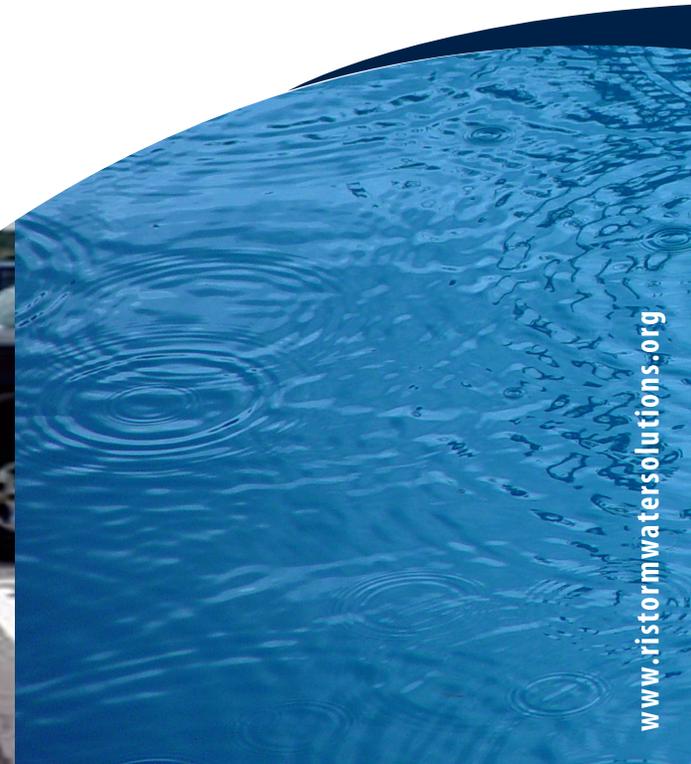
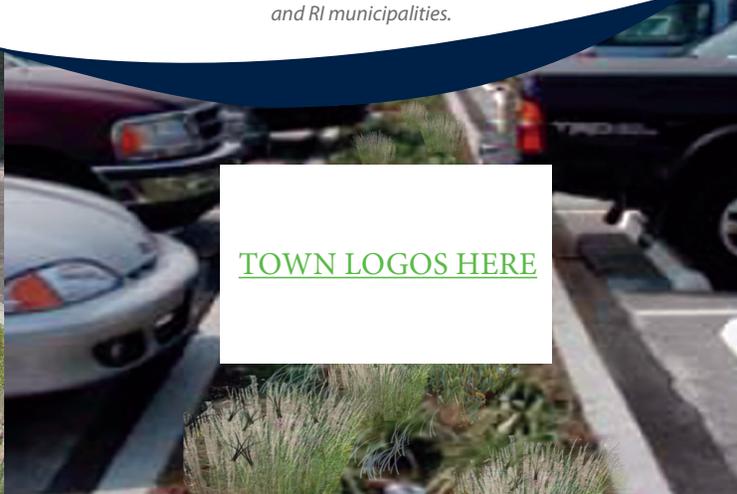
THE UNIVERSITY OF RHODE ISLAND



Produced by URI Cooperative Extension, RI NEMO, with funding from the RI Department of Transportation, in partnership with the RI Department of Environmental Management and RI municipalities.

TOWN LOGOS HERE

NEW STORMWATER MANAGEMENT STRATEGIES FOR RI BUSINESS OWNERS



LOW IMPACT ALTERNATIVES FOR RI BUSINESSES

◆ DO NOW

Disconnect Downspouts

and easily **re-direct roof runoff** from storm drains by diverting water toward a vegetated area that will “slow the flow,” remove potential pollutants and promote groundwater recharge.



◆ PLAN AHEAD

Bio Retention Areas

are landscaped depressions that **collect and filter stormwater** through layers of mulch, soil and plants. Pollutants are retained, degraded and absorbed, while clean water is then infiltrated or discharged into a stormwater system.



Water Harvesting

is an economical way to **capture and re-use stormwater** that can also reduce water utility costs. Roof runoff can be collected in cisterns or rain barrels and used later for landscape irrigation or other non-potable applications, both indoors and out.



Stormwater Planters

are vegetated containers that **collect and filter runoff**, slowly releasing clean water into the ground. They are affordable, do not require a large amount of elbow-room and can add aesthetic appeal to areas where space is a premium.



Parking Lot Design and Permeable Pavements

Plan to **maximize efficiency and decrease impervious surface** by incorporating a variety of LID features to help infiltrate stormwater and snow melt. Smaller lot size, porous pavement and elements such as tree filter pits, vegetated bioretention islands or permeable overflow parking can help mitigate polluted runoff. Permeable pavers are paving blocks dry laid on a surface with spaces left in between to allow water to percolate into the ground. Sand, gravel or plants are used to fill void spaces. Permeable materials are well suited for use in parking lots, low traffic roads, driveways, walkways or decorative edging.

Green-scape

your site with low cost, **low-maintenance, native plant material** that encourages retention of water on-site and minimizes the use of lawns, fertilizers and pesticides. Direct any water that does run off to vegetated buffers, rather than to storm drains.



Retrofit Existing Basins

by converting old style drainage basins into **wet vegetated treatment systems**, which are more functional treatment practices for infiltrating runoff. New wet basin designs can be quite effective in removing pollutants *and* add an aesthetic element to the landscape .

catch it. clean it. slow it. soak it.

