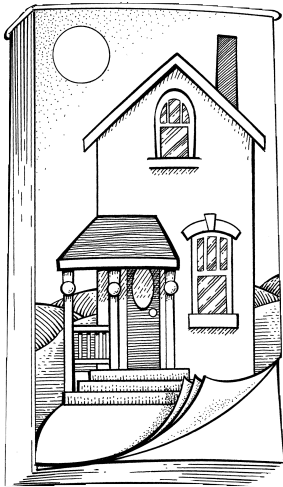


## How to Manage and Control Storm Water Runoff



### Assessment 1: Reducing pollutants in runoff

Use this table to rate your storm water pollution risks. For each question, indicate your risk level in the right-hand column. Some choices may not correspond exactly to your situation. Choose the response that best fits. Refer to the sections above if you need more information.

Reducing pollutants in runoff				
	LOW RISK	MEDIUM RISK	HIGH RISK	YOUR RISK
Automotive wastes	Oil drips and fluid spills are cleaned up. Dirty car parts and other vehicle wastes are kept out of reach of storm water runoff.	Drips and spills are not cleaned up. Car parts and other vehicle wastes are left on unpaved areas outside.	Used oil, antifreeze and other wastes are dumped or washed down the storm sewer, in a ditch or on the ground surface.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High
Car washing	Cars and trucks are taken to a commercial car wash or spray booth.	Cars, trucks or other items are washed on a lawn or gravel drive.	Cars, trucks or other items are washed on a driveway, street or other paved area.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High
Storage of pesticides, fertilizers and other potentially harmful chemicals	Chemicals are stored in waterproof containers in a garage, shed or basement that is protected from storm water.	Chemicals are stored in waterproof containers but within reach of storm water, or where they may freeze.	Chemicals are stored in non-waterproof containers outdoors or within reach of storm water, or where they may freeze.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High
Handling and use of pesticides, fertilizers and outdoor chemicals.	Spills are cleaned up immediately, particularly on paved surfaces. Minimum amounts of chemicals are applied according to label instructions. Applications are delayed to avoid rain.	Applications are not delayed to avoid rain.	Spills are not cleaned up. Products are used in higher amounts than what is recommended on the label. Products are applied on impervious surfaces.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High

**Reducing pollutants in runoff, *continued.***

	<b>LOW RISK</b>	<b>MEDIUM RISK</b>	<b>HIGH RISK</b>	<b>YOUR RISK</b>
Pet and animal manures	Animal and pet manures are flushed down the toilet; buried away from gardens, wells, ditches, or areas where children play; composted or wrapped and placed in the garbage for disposal.*	Animal manures are left to decompose on grass or soil. Wastes are scattered over a wide area.	Animal manures are left on paved surfaces, concentrated in pen or yard areas, or dumped down a storm drain or in a ditch.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High
Grass clippings, leaves and other yard wastes	Grass clippings, leaves and other yard wastes are swept off paved surfaces and onto lawns away from water flow routes. Leaves and other yard wastes are composted.	Leaves and other yard wastes are piled on the lawn next to the street for collection.	Grass clippings, leaves and other yard wastes are left on driveways, streets and other paved areas to be carried off by storm water. Yard waste is burned on-site.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High

\* Be sure to check local regulations regarding burying or landfilling pet and animal wastes.

## Assessment 2:

### Landscaping and site management to control runoff

Indicate your risk level in the right-hand column. Select the answer that best matches your situation. Refer to the fact sheet if you need more information to complete the table.

**Landscaping and site management to control runoff**

	<b>LOW RISK</b>	<b>MEDIUM RISK</b>	<b>HIGH RISK</b>	<b>YOUR RISK</b>
Bare soil in lawns and gardens	Bare spots in the lawn are promptly seeded and topped with a layer of straw or mulch. Bare soil in gardens is covered with mulch.	Grass or other ground cover is spotty, particularly on slopes.	Spots in the lawn or garden are left (exposed) without mulch or vegetation for long periods.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High
Bare soil during construction	Bare soil is seeded and mulched as soon as possible (before construction is completed). Sediment barriers are used until grass covers soil.	Soil is left bare until construction is completed. Sediment barriers are installed and maintained to detain muddy runoff until grass covers soil.	Soil is left bare and no sediment barriers are used.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High
Paved surfaces	Paved surfaces are minimized. Alternatives such as wood chips or paving blocks are used for walkways, patios and other areas.	Some small areas are paved for patios or basketball.	Paved surfaces are used extensively.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High

**Landscaping and site management to control runoff, *continued.***

	<b>LOW RISK</b>	<b>MEDIUM RISK</b>	<b>HIGH RISK</b>	<b>YOUR RISK</b>
Basement protection	Storm water is diverted from basement windows by window well covers and other devices. Yard is sloped away from the foundation. Downspouts direct roof drainage away from the house.	No special water diversion methods are installed, but storm water has never entered the basement.	No water diversion methods are attempted. Storm water runoff has entered the basement or flows near the foundation.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High
Roof drainage	Downspouts and drip lines direct roof drainage onto a lawn or garden where water soaks into the ground.	Some downspouts and drip lines discharge water onto paved surfaces or grassy areas where water runs off.	Most or all drip lines or downspouts discharge onto paved surfaces, or downspouts are connected directly to storm drains.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High
Landscaping and buffer strips	Yard is landscaped to slow the flow of storm water and provide areas where water soaks into the ground. Unmowed buffer strips of thick vegetation are left along streams or lakeshores.	No areas are landscaped to encourage water to soak in, but yard is relatively flat and little runoff occurs. Mowed grass or spotty vegetation exists adjacent to a stream or lake.	There is no landscaping to slow the flow of storm water, especially on hilly, erodible properties. Stream banks or lakeshores are eroding.	<input type="checkbox"/> Low <input type="checkbox"/> Medium <input type="checkbox"/> High

## Action checklist

Go back over the work sheets to ensure that all medium and high risks you identified are recorded in the checklist. For each medium and high risk, write down the improvements you plan to make. Use recommendations from this chapter and other resources to decide on actions you are likely to complete. A target date will keep you on schedule. You don't have to do everything at once, but try to eliminate the most serious risks as soon as you can. Often it helps to tackle the inexpensive actions first.

Storm Water Management		
Write all high and medium risks below.	What can you do to reduce the risk?	Set a target date for action.
<i>Sample:</i> Pet wastes left in areas where runoff occurs.	Bury manure away from gardens, wells, ditches, or areas where children play.	One week from today: April 8

This guide was prepared by Steve Mellis and Don Schuster, based on the Home•A•Syst chapter written by Carl DuPoldt, Environmental Engineer, Natural Resources Conservation Service, Somerset, New Jersey and Carolyn Johnson, Water Quality Education Specialist, University of Wisconsin Cooperative Extension, Milwaukee.

The Missouri Home•A•Syst series was produced with funding from the United States Department of Agriculture and was adapted for use in Missouri from the National Farm•A•Syst/Home•A•Syst Program in Cooperation with the Northeast Regional Agricultural Engineering Services (NRAES).