

In this module, you will learn about the range of options we have to prevent pollution.

### Pollution Prevention Strategies:

#### Street Sweeping

Street sweeping is one of the simplest, most effective ways to prevent pollution from entering water bodies. Many cities are investing in this pollution prevention strategy as a way to meet Federal Clean Water Act requirements.



Drs. Larry Baker and Sarah Hobbie, of the UMN, in partnership with the city of Prior Lake, MN are studying the pollution prevention potential of street sweeping.

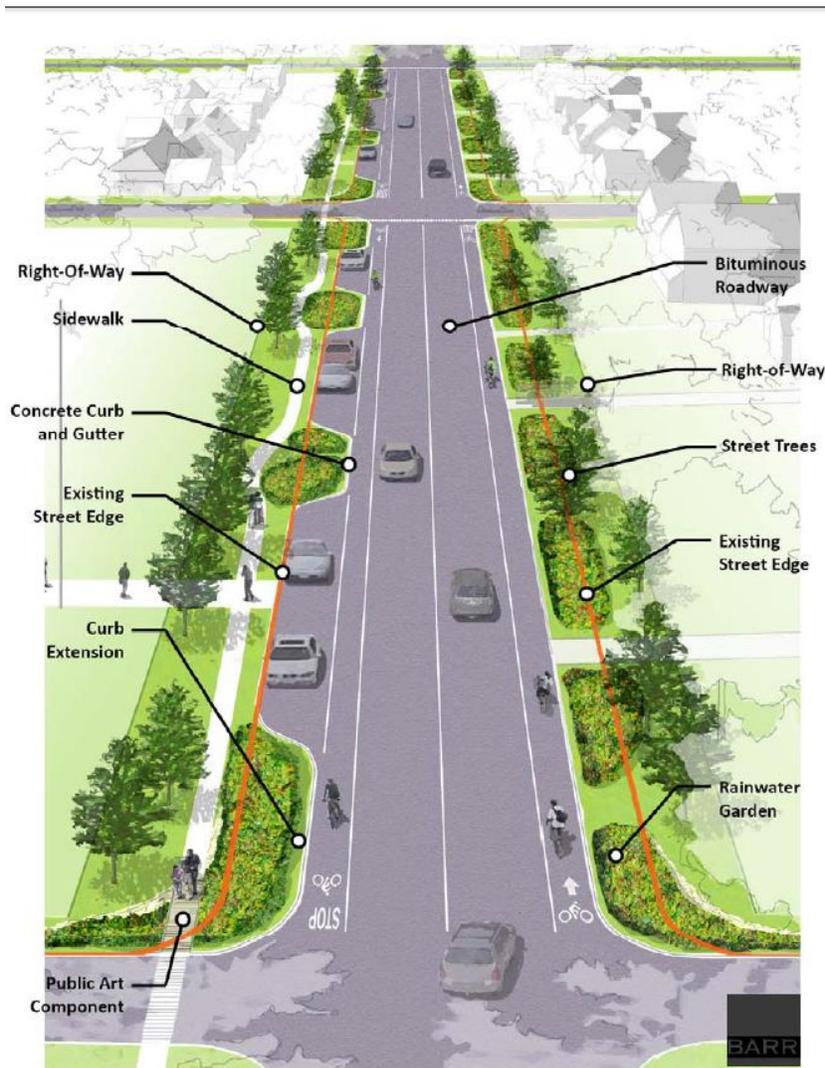
#### Learning Activity

Read a short article on the results of the Prior Lake street sweeping study.

<http://stormwater.safl.umn.edu/updates-march-2013>

## Reduced Street Widths

Purpose and Function- Reduces Impervious Surface



Reducing street width and adding trees and green space creates a multi-functional landscape. In the drawing above, by the Barr Engineering firm, the street is narrower, going from 34 ft. curb to curb down to 22 ft. Narrower streets calm and slow traffic, and there are trees and additional green spaces that soak more water into the ground. As you look at these photos, keep in mind that we are merely mimicking a natural system.

Let's look at more examples of pollution prevention strategies that are simple, convenient, and accessible:

### Public Education and Public Involvement



Picking up pet waste, sweeping leaves out of the streets, and managing lawn chemicals like fertilizer might not sound like much but each small step helps reduce pollution running into waterways. Stenciling stormdrains reminds neighbors that nothing but water should go down a stormdrain.

In 2011, the Freshwater Society and the Girls Scouts of the River Valleys partnered up to do a massive one-day service project to celebrate the Girls Scouts' 100-year anniversary. Over 27,000 Girl Scouts and adult volunteers swept up several tons of leaves.

### Learning Activity

Watch this short video to see how Girl Scouts explain the problem of leaves in the streets.

<https://www.youtube.com/watch?v=AxOx0LI5QwU&feature=youtu.be>

## Storm Drain Goalie

Storm Drain Goalie is a new Public Education program developed by the Center for Global Environmental Education at Hamline University. The program is based on the premise that engaging people in a new behavior, or changing an old behavior, is easier if it is fun, or light-hearted.

### **Learning Activity**

Take a look at the Storm Drain Goalie Facebook page.

<https://www.facebook.com/StormDrainGoalie>

Another example of a light-hearted approach to public education and pollution prevention comes from Seattle- Dog Dooggity.

<https://www.youtube.com/watch?v=jDh12w-jcfs>

## Illicit Discharge Detection & Elimination

### **Preventing Illicit Discharges**

Illicit discharges are generally any discharge into a storm drain system this is not composed entirely of stormwater. Illicit discharges are a problem because, unlike wastewater which flows to a wastewater treatment plant, stormwater generally flows to waterways without any additional treatment. Illicit discharges often include pathogens, nutrients, surfactants, and various toxic pollutants. Here again, preventing pollution through public education is much less expensive, and more effective, than cleaning up the pollution once it enters our water.



Paint, used motor oil, grass clippings, automotive lubricants, leftover household cleaning products, are all illegal to dump down the stormdrain in any quantity.

## Good House Keeping- Doing the everyday work-right



Municipalities conduct numerous activities that can pose a threat to water quality if practices and procedures are not in place to prevent pollutants from entering the MS4. These activities include winter road maintenance, minor road repairs and other infrastructure work, automobile fleet maintenance, landscaping and park maintenance, and building maintenance.

In Minnesota, we are constantly fine-tuning maintenance procedures that protect our lakes and rivers. The Freshwater Society has sponsored a symposium on road salt for the past 15 years, to help departments of public works, and maintenance workers reduce their use of road salt, while still maintaining public safety.

<http://freshwater.org/annual-road-salt-symposium-fights-chloride-pollution/>

We have one more idea in the Pollution Prevention toolbox- Better Site Design.

## Better Site Design

Better Site Design involves green infrastructure practices like narrowing streets, adding bike lanes, putting raingardens along the boulevards. How can we, as home owners, renters and apartment dwellers, support Better Site Design, when it is the city we live in that controls these practices?



By being open to the ideas if our City proposes them, or encouraging our city to propose these new ideas. Changing how streets look requires us to change how we think cities should look, and change is sometimes hard. Green infrastructure often includes features that have little to do with stormwater, but are part of the multi-functional landscapes that make up low impact development.

### Learning Activity

Take a look at one or more of the following articles about the planned redesign of a portion of Washington Ave. in Minneapolis, MN. The designs that feature protected bike lanes were strongly supported by the bicycling community in Minneapolis, but were among the features that generated the most disagreement among community members.

<http://www.journalmpls.com/news-feed/county-approves-major-redesign-for-stretch-of-washington#>

<http://www.startribune.com/local/west/207142181.html>

<http://www.minnpost.com/politics-policy/2014/02/six-block-washington-ave-makeover-include-bike-lanes>

Edina, MN has plans to add sidewalks to neighborhoods as part of its Living Streets Initiative. Residents have pushed back against the idea.

<http://current.mnsun.com/2014/11/meetings-on-edina-sidewalk-map-scheduled/>

<http://www.startribune.com/local/west/283286561.html>