

# IT'S ANYTHING BUT BLUE AND EVERYTHING ABOUT YOU

You see photos of the earth with its blue oceans and you see photos of a wonderfully blue Lake Michigan. However, a foggy day is gray and a rainy day is shiny and neither are blue. We all know that a lake or ocean mirrors the blue sky, an optical trick that a large body of water plays with us. Otherwise water is clear and we can see through it and we see everything that is in the water. So the closer you look, the more you will see, especially in the water that runs to our streams and rivers and fills those blue lakes and oceans and it's called Storm Water. The Environmental Protection Agency and Wisconsin Department of Natural Resources defines Storm Water as any water (rain or melting ice/snow) that falls from the sky and runs across the land to streams, rivers, and lakes. Also included are potable water from irrigation, AC condensate, de-chlorinated pool water, and water from fire fighting. Just so we get it clear - what is not Storm Water is any water that has been treated or has had any substance added – soap, any waste materials, and any water that goes down a drain and into a sanitary sewer.

And we spend a large amount of time, resources and money to manage it. Storm Water Management consists of all the activities that a municipality must do to control flooding and improve the quality of storm water entering the streams, rivers and lakes. It also includes a way of living for you and your neighbors. It is everything about you, at home, at work, in your travels.

What does it mean to you as a resident to live a life guided by improving the storm water?

## **That's answered on the next pages.**

### **STORM WATER AND YOU**

Let's start with the basics of managing your property and your responsibility for the public parkway/ditch next to it. Let's take a tour of your property, we'll start outside and work our way in.

**Ditch and Culvert:** If you have these, and most residents do, you should clean debris out of the culvert and make sure the ends are completely open. The ditch should not have any block, concrete or asphalt lining put in, but repair the turf as possible. The ditch is meant to hold water and can be wet through the spring and the fall. In areas with active sump pumps the ditch could be wet for part of the summer too. Contact your municipality for instructions of approved plantings in the ditch area. Sump pumps and downspouts should be directed and dispersed over the yard and not piped directly to the ditch – so that your neighbors down stream don't have constantly wet ditches. Do not stockpile leaves or other material in the ditch as these can decompose and/or be washed away as pollutants.

**Curb and Gutter:** If you have a curb on your street, you are serviced by a storm sewer. You need to be careful not to blow grass clippings on to the road. Do not allow fertilizers and herbicides from falling onto the street and gutters. Clean up any material that falls onto the street and gutter from your yard work. Follow housekeeping practices for car washing. Do not stockpile leaves or other material in the gutter of the street as these can decompose and/or be washed away as pollutants.

**The Yard:** Your yard should not have any areas that are bare where soil could be washed away. The grass should be cut to a height of 2.5" and no shorter. This will create a deeper root and save on watering in dryer weather. Use a mulching type mower and for a high grass you will need to make two or three cuttings to get the grass down to 2.5". If you clump it – then compost it or use it in a garden area for mulch to reduce watering. Mulching saves on fertilizer and time in spreading it (clippings from 1,000 sq. ft. of lawn contains 6 pounds of nitrogen and 1 pound of potassium – all that the lawn needs). Use of fertilizers and herbicides should be kept to a minimum. Look for simple soil test kits to check your soil before

**It's not just Storm Run-off, It's a Natural Resource**

applying any fertilizer. A slow release type fertilizer with no or the smallest amount of phosphorous is all that an established turf needs. Excess fertilizer only gets washed off, adversely affects the habitat in streams and rivers, and it's your money going down the gutter/ditch. Look for natural fertilizers and herbicides like corn gluten meal. Minimize herbicide application by treating the weed itself and not the entire yard – try not to use weed & feed fertilizers – just spot treat the weed.

**Landscaping:** The landscaping, when done properly, on properties can be the largest storm water control in the Village. Look at your property and see how the water drains. Place planting beds and ground covers to collect and filter storm water before it leaves your property. Look at installing rain gardens or decorated rain barrels at downspout locations. Information on purchasing rain barrels, rain garden and prairie plant information can be obtained from your local municipality or UW-Extension and MMSD websites. Shrubs, plant beds, prairie beds, ground covers, and trees absorb and filter much more water than grass and provide you with a colorful variation through the seasons. These areas also provide space for leaving or spreading leaves for decomposition. Proper location of trees can improve storm water and save you on heating and cooling, watering and fertilizing.

**Housekeeping:** Let's take a look at all those other activities around your property and house.

**Car Washing:** The most water friendly way is to take your car to the car wash where the water is recycled or goes to a sanitary sewer. If you wash at home, move your car onto the lawn and wash it there. The lawn will infiltrate the water and soap, and settle out the fine dirt washed off the vehicle. Use a bio-degradable soap to clean your car, boat, trailer, house siding, etc.

**Auto Servicing:** You should have your vehicle's oil change and greasing done at an oil/lube/service center for proper disposal of fluids. If you do your own oil change at home, dispose of the oil at a service center or at a Recycling Center. Anti-freeze should be taken to a service center for disposal. **DO NOT POUR ANY VEHICLE FLUIDS DOWN ANY STORM OR SANITARY SEWER.** Tires should be taken to a tire center for disposal. If you have tires, store them in the garage, shed, or keep them covered so they will not fill with storm water.

Tires filled with water are the #1 incubator for breeding mosquitoes. One of the simplest and cheapest ways to prevent pollution is to keep your tires inflated. For every pound that your tires are under-inflated, your car loses 1% in gas mileage. Under-inflated tires also wear out sooner. The solution is simple – check your tire pressure frequently, especially as temperature changes in the fall and spring. Tires lose a pound of pressure for every 10-degree drop in temperature. By reducing the amount of gasoline your car burns, properly inflated tires reduce the amount of polluted exhaust that your car makes. Exhaust and tire particulates are all picked up by storm water and pollute our waters.

**Driving less:** is the best way to prevent water pollution. Water quality tests show that the most polluted runoff comes from heavily traveled streets and highways. Is there a way you could help reduce water pollution by driving less? Driving seems cheap and convenient, but many costs, such as road construction, are hidden in our tax bills. If we paid the full price of auto transportation at the gas pump, a gallon would cost \$6.00 or more.

**Refuse Storage:** Keep all refuse enclosed so that it does not get blown away or torn open by animals. Reuse, reduce, and recycle as much as you can. Paints, thinners, herbicides and pesticides, and other household hazardous waste should be taken to the Household Hazardous Waste Drop-off sites. These sites and times can be found on the MMSD website. **DO NOT POUR ANY HOUSEHOLD CHEMICALS DOWN ANY STORM OR SANITARY SEWER UNLESS DIRECTED TO POUR INTO THE SANITARY BY THE CHEMICAL LABEL.**

**Pet Care:** It's your duty to clean up after your pet has done its duty. Pollutants from improperly disposed pet waste may be washed into storm sewers by rain or melting snow. When pet waste decays in lakes or streams it can kill fish, encourage algae and carry disease. When pet waste is disposed of improperly, not only water quality suffers – your health may be at risk too. Pets, children who play outside and adults who garden are most at risk for infection from some of the bacteria and parasites found in pet waste. Flies may also spread diseases from animal waste. Dispose of pet waste by flushing down the toilet (best), burying (2<sup>nd</sup> best), or bagging and tossing in the trash. Even if you are a diligent “pooper

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scooper” remember the best protection is washing hands with soap and water!

**Composting and Yard Storage:** Follow municipal rules on composting and keep the compost area secured so storm water cannot run through or out of the compost area. Mowers, garden tractors and tools should be stored in the garage or in a yard shed with a floor. Do not allow oil and fuel from yard/garden equipment from entering the soil or running down the drive to the street gutter.

**Swimming Pools:** Water used in swimming pools is treated with a high chlorine level. The water from a swimming pool needs to have the chlorine neutralized before it can be discharged over the lawn and into the ditch or storm sewer.

**Construction:** All construction areas where the vegetative cover has been removed shall have erosion protection installed. Stockpiles of soil and gravel shall be covered if not located within the erosion control area or if placed on paved surfaces. Storm inlets in the area shall have a fabric filter installed. Erosion controls shall remain until ground cover is re-established. If you see a construction site without hay bales or falling silt fence – call your local Building Inspection or Public Works departments.

**Stream and River Banks:** If you happen to have a stream or river bank along your property – you are a riparian owner. Call your municipality to see if the municipality has maintenance rights (an easement) or if you fully own the stream/river bank. If you own the bank, you should inspect your banks and ensure that there is good vegetative cover and no erosion. Eroded areas should be filled in, seeded or planted, and protected until the planting material has established a holding root system. If the municipality has maintenance rights, notify the municipality of any erosion. The banks of drainage swales, streams, and rivers are not areas for the disposal of yard/garden waste, tree/brush materials, soil, or any other materials.

**Downspouts and Sump Pumps:** Downspouts should be directed away from the house and to your yards where there is area for dispersal and absorption. Downspouts should not be directed to your neighbor’s yards or piped directly to the ditch. Make use of rain barrels and save money on water for yards and gardens. Another option, install rain gardens to absorb rain water and filter

it before it goes to the ditch or storm sewer (see Landscaping above). Sump pumps, like downspouts, should be directed to your yards where the water can spread out for absorption.

In areas with storm sewers, the old way was for properties to connect downspouts and sump pumps to the storm sewer. Today, the storm water wise will disconnect the downspouts and sump pumps and direct them to their yards to save watering costs.

**It is against the law to direct downspouts or sump pumps to a sanitary drain/sewer.**

**Driveways, Patios and Sidewalks: Porous Pavements** – driveways, patios and walks can be constructed with porous materials such as pavers, cut stone, “green blocks”, or porous concrete/asphalt. The more storm water that can get into the ground; means less polluted runoff to streams, rivers and lakes.

**Substitute Shoveling for Salt:** Salt may be an easy way to get rid of snow and ice, but it pollutes lakes, streams and groundwater. It also kills trees and grass as well as corroding auto bodies, metal bridges and underground cables. Shovel your driveway and sidewalk before the snow gets packed down and icy. If the pavement is still slick, use new biodegradable deicers, sand or sand mixed with salt to provide some traction and melt the snow. After the snow melts, sweep up the sand to keep it out of storm sewers and waterways. Porous type pavements need little deicers or minimal biodegradable liquid deicers that can be applied with a common sprayer.

**Mosquitoes:** if there is standing water, there are mosquitoes. The best control is to remove areas where water can stand for 5 or more days – rain gutters, old tires, buckets, plastic covers, toys – any container that can be heated by the air and sun. Empty and change water in bird baths, fountains, wading pools, uncovered rain barrels, and potted plant trays at least once a week. Drain or fill temporary pools of water with dirt and keep swimming pool water treated and circulating.

### **A Storm Water Manager**

As you can see the management of storm water is not just a function/activity of a municipal government. It is a way of living for every resident of Wisconsin and for every resident in the United States. You and every member of your family are a Storm Water Manager.

### **GO WITH THE FLOW AND DO MORE**

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Check with your municipality to see if it has a list of projects that can be performed by volunteers, businesses, and organizations. These projects consist of stenciling of storm inlets, distribution of storm water education materials, clean-ups, Site Assessment of Better Management Storm Water Practices, Stormie's Neighborhood Water Watch, and any idea that an individual has to improve the quality of A *NATURAL RESOURCE*.

Projects for groups:

Construct information stations at storm water projects to describe the project and its benefits.  
Develop local handouts for differing age groups on storm water.  
Planting events at existing and new projects.  
Assist with "Greening" events which

covers forestry, storm water, and recycling.

**ILLCIT DISCHARGE DETECTION  
AND ELIMINATION PRGRAM**

Residents should report to their municipality any open water flows that are cloudy, sudsy, have an oily sheen, and/or odor, or see anyone draining any materials to a stream or catch basin. Check your municipality website for further information.

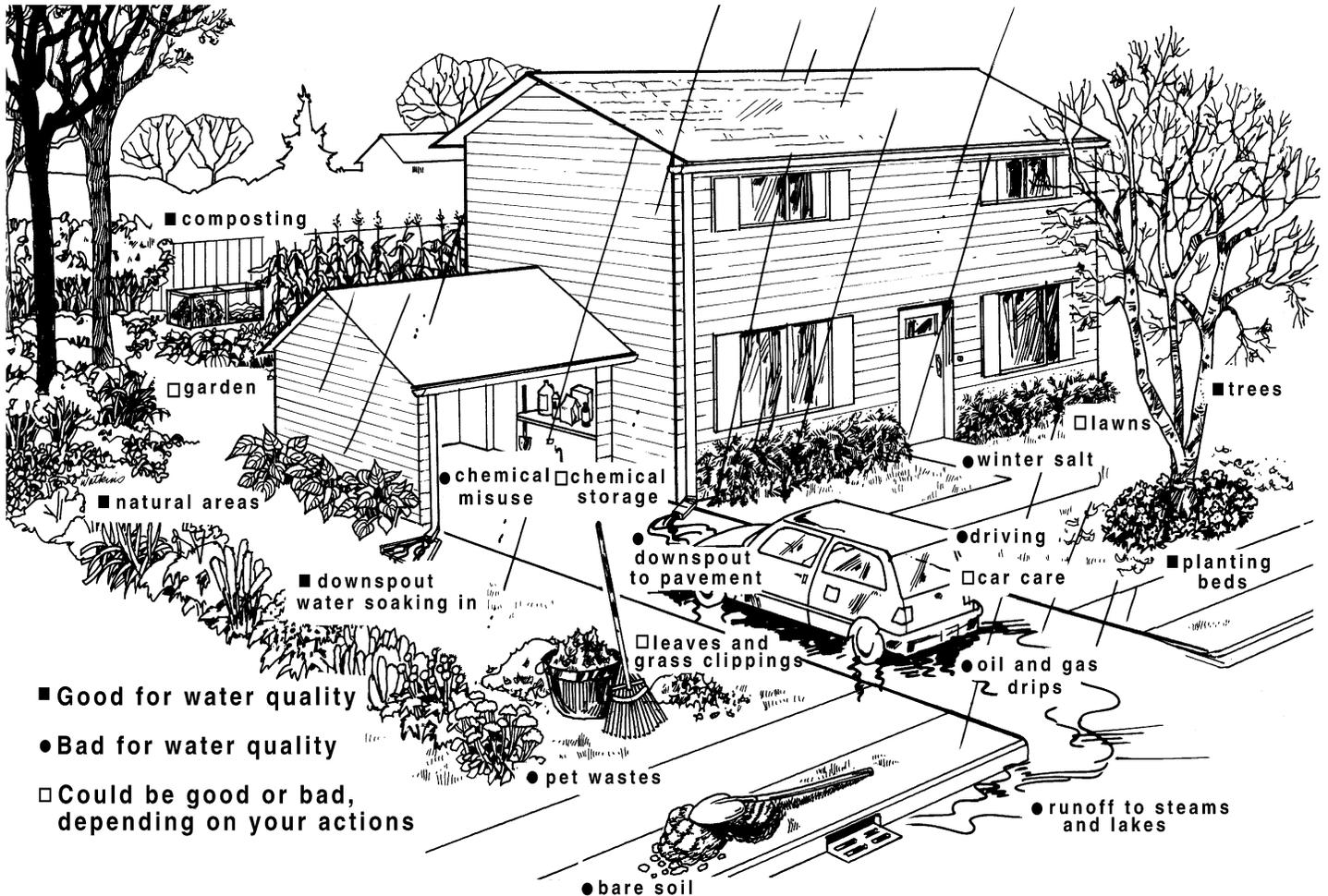
**FOR MORE INFORMATION**

Visit the UW-Extension [Clean Water Web Site](http://clean-water.uwex.edu/pubs/) (<http://clean-water.uwex.edu/pubs/>) to learn more stormwater tips, or call the UW-Extension River Basin Educator for the Milwaukee River Basin, 414-290-2434.

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PLACE THIS HANDY REMINDER DIAGRAM  
 BY YOUR GARAGE DOOR

# REMEMBER THAT STORM WATER QUALITY CONTROL STARTS WITH YOU AT YOUR HOME



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