

# MEDIA TOOLKIT

For the Greater Lansing Regional Committee for Stormwater Management



**GREATER LANSING  
REGIONAL COMMITTEE  
FOR STORMWATER MANAGEMENT**

[www.mywatersheds.org](http://www.mywatersheds.org)

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# INTRODUCTION

The Greater Lansing Regional Committee for Stormwater Management (GLRC) is a guiding body comprised of Municipal Separate Storm Sewer System (MS4) communities within the Greater Lansing area. The committee guides the implementation of the stormwater program for participating communities within the Grand River, the Red Cedar River, and the Looking Glass River watersheds. Members work together to reduce stormwater pollution throughout the region.

A major component of the stormwater program is public education. Members pool resources to develop and distribute a variety of outreach materials for the public. While the majority of the Public Education Program (PEP) requirements are completed by the Tri-County Regional Planning Commission and GLRC coordinator, the following materials are available to all member communities for use. Speak with your community's stormwater program administrator to learn more about requirements specific to and the responsibility of your municipality.

Documentation of PEP material usage is crucial, as it will be reported to state regulators during an audit. If using these or other materials that educate residents on stormwater, watersheds, or pollution prevention, make note of the date and the topic covered. Please see [MyWatersheds.org/members](https://www.mywatersheds.org/members) for tracking spreadsheets and other useful information. If you have questions or ideas about additional outreach material, please contact the GLRC coordinator.



An aerial photograph of a dense forest with a stream winding through it. The trees are mostly green, with some brown patches. The stream is dark and rocky. A green semi-transparent box is overlaid on the left side of the image, containing the text.

# WEBSITE

MyWatersheds.org is the GLRC's shared website and primary vehicle for outreach.

# MYWATERSHEDS.ORG

The GLRC website is the primary source for shared materials and outreach activities. While most of the webpages are designed for the general public, the “For Members” page was created to house resources specific to member communities, including digital outreach material files and a request form for any physical materials needed for events.

All GLRC resources can be found at [MyWatersheds.org](http://MyWatersheds.org). Member-specific resources can be found at [MyWatersheds.org/Members](http://MyWatersheds.org/Members).






About
Stormwater
Watersheds
Get Involved
Resources

FOR MEMBERS

This page houses GLRC resources, meeting schedules, outreach material, and other useful links for member communities. Contact the GLRC coordinator, Cliff Walls, at [cwalls@mlrc.org](mailto:cwalls@mlrc.org) with any questions or requests for additional information.

Quarterly Newsletters

Annual Reports

### COMMITTEE DOCUMENTS

- GLRC TMDL QAPP
- GLRC Public Education Plan template
- GLRC P2/GH template
- GLRC Ordinance Manual
- GLRC Action Plan
- GLRC IDEP Outfall Screening Template
- PEP Tracking Spreadsheet
- PEP Educational Article posting timeline
- GLRC 2016 Progress Report Template
- NEW EGLE Progress Report Template

### WATERSHED MANGEMENT PLANS

- Middle Grand River Watershed Plan
- Red Cedar River Watershed Plan
- Looking Glass River Watershed Plan

### GLRC'S PUBLIC SURVEYS

- 2018 Regional Water Quality Survey
- 2012 Regional Water Quality Survey
- 2006 Regional Water Quality Survey

## REQUEST PUBLIC EDUCATION (PEP) AND TRAINING MATERIALS

GLRC Member Community

Type your message here...

### ADDITIONAL RESOURCES

- Greening Mid-Michigan
- SEMCOG LID Manual
- EPA: Green Infrastructure in Parks
- Trees and Stormwater-resource guide
- WikWatersheds - Watershed Modeler
- NRPA: Green Infrastructure for Parks
- EGLE M/Waters
- M/Waters Tutorial Video
- EGLE Stormwater Program
- EGLE MS4 Homepage
- EGLE Nonpoint Source BMPs
- EPA MS4
- EPA BMPs
- EPA Fact Sheet

View Meeting Materials

### TRAINING RESOURCES

- MI Winter Maintenance Manual
- NPDES Permit Writers Training
- Web Based Water Quality Training
- EPA Web Based Training

IDEP and P2/GH training DVDs are available through the GLRC. Contact GLRC Coordinator or use form to reserve.

For EGLE Construction Storm Water Operator and SEBC Training info, click [here](#).

### PEP OUTREACH MATERIALS (DIGITAL/PRINTABLE)

#### Brochures

- Green Infrastructure Brochure
- Pet Waste Management Brochure
- Fertilizer and Lawn Care Brochure
- Responsible Car Washing Brochure
- Motor Oil Management Brochure
- Do You Know Your Watershed? Brochure
- Riparian Buffer Brochure

#### Press Releases

- Pet Waste Template
- Dumpster Template
- Soil Erosion Template
- Industrial Facility Template

#### Posters

- Pollution Isn't Pretty Flyers
- Car Washing Poster
- Lawn Care Poster
- Motor Oil Poster
- Pet Care Poster

#### Articles

- What is A Watershed? PDF Article
  - Watershed\_Word Doc
- Septic System Maintenance Article PDF
  - Septic\_Word Doc
- Safe Fertilizer Use Article PDF
  - Fertilizer\_Word Doc
- Vehicle Maintenance Article PDF
  - Vehicle Maintenance\_Word Doc
- Pet Waste and the Environment Article PDF
  - Pet Waste\_Word Doc
- Storm vs. Sanitary Sewer Systems Article PDF
  - Storm vs Sanitary\_Word Doc

#### Seasonal Stormwater Tips

- Winter Tips Flyer/Poster/Digital
- Spring Tips Flyer/Poster/Digital
- Summer Tips Flyer/Poster/Digital
- Fall Tips Flyer/Poster/Digital
- Pool Draining Info

#### Miscellaneous

- EPA Septic Outreach Toolkit

### AVAILABLE MATERIALS

Request your materials below. Include dates and quantities needed in your message above.

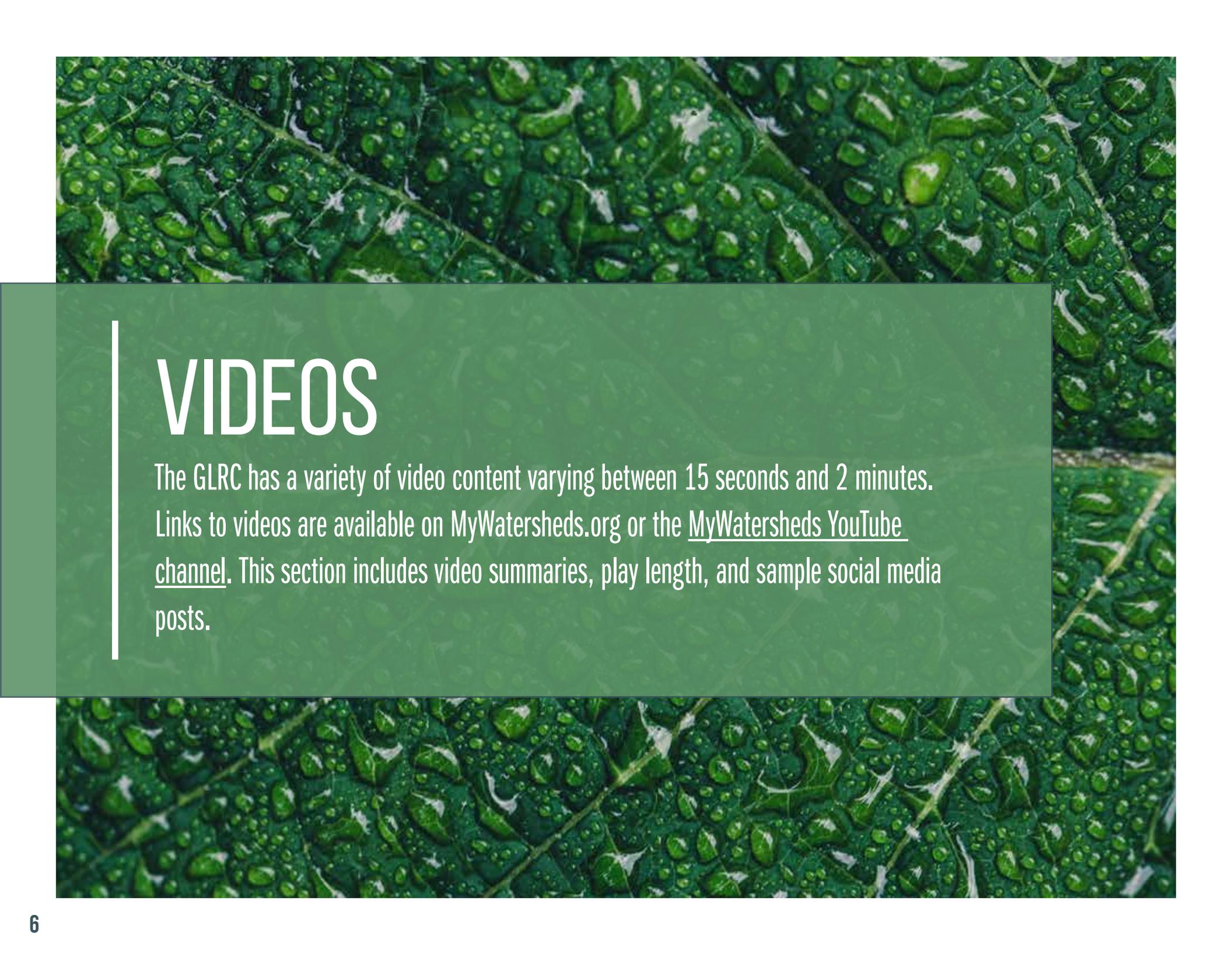
PEP Material Descriptions

- GLRC Scroll Banner Display
- Interactive Watershed Environments Model
- Large 3 Panel Display
- IDEP/GH Training DVDs
- Brochure: Pet Waste & Water Quality
- Brochure: Fertilizer & Lawn Care
- Brochure: Green Infrastructure
- Brochure: Motor Oil Management
- Brochure: Do You Know Your Watershed
- Brochure: Stormwater Smart Car Washing
- Pollution Isn't Pretty Rubber Bracelets
- MyWatersheds.org Stickers
- GLRC Promo Pens
- Watershed Temporary Tattoos
- GLRC Promo Tote Bags
- Dog Waste Bag Dispensers
- Pollution Isn't Pretty Cardstock Flyers
- Greater Lansing GSI Bike Tour Map
- GLRC Annual Report
- Dog Park Map and "Scoop" Fledges

Submit

#### Business/Developer Flyers

- Construction Site Soil Erosion
- Dumpster BMPs
- Gas Station BMPs
- Good Housekeeping at Businesses
- Chemical Storage

A close-up photograph of green leaves covered in water droplets, serving as the background for the slide. The droplets are of various sizes and are scattered across the leaf surfaces, which show clear vein patterns. The overall color is a vibrant green.

# VIDEOS

The GLRC has a variety of video content varying between 15 seconds and 2 minutes. Links to videos are available on [MyWatersheds.org](https://www.mylakecountyparks.org) or the [MyWatersheds YouTube channel](#). This section includes video summaries, play length, and sample social media posts.



**Topic:** Car Washing

**Length:** :42

**Link:** <https://youtu.be/ZJ0lr4Mbjml>

Washing a car in a driveway or street sends oils, grease, and dirt into our waterways. A commercial facility is the best way to wash, as the waste water is treated. Check out MyWatersheds.org for other water protection tips!

[#PollutionIsntPretty](#) [#Stormwater](#)



If you work on your car at home, use ground cloths or drip pans & clean up spills immediately.

**Topic:** Motor Oil Management

**Length:** :54

**Link:** <https://youtu.be/J7pV-4zC7hY>

It's estimated that Americans spill 180 million gallons of used oil each year. That's 16 times the amount spilled during the Exxon Valdez disaster! By quickly fixing leaks, you can help protect both your vehicle and our water resources.

[#PollutionIsntPretty](#) [#Stormwater](#)



#DYK

Many household items should be recycled at special collection facilities, not discarded as trash?

**Topic:** Household Hazardous Waste Recycling

**Length:** :44

**Link:** <https://youtu.be/LIWH7gN1hEw>

When not stored, used, or disposed of properly, household hazardous waste pollutes our waterways through stormwater runoff. Household cleaners, paints, automotive fluids, and more should be recycled at a household hazardous waste event or designated collection facility. For a calendar of events, visit [www.mywatersheds.org/waste disposal](http://www.mywatersheds.org/waste-disposal).

[#PollutionIsntPretty](#) [#Stormwater](#)



#DYK

Dog waste can make our waterways sick?

**Topic:** Pick Up After Your Pets

**Length:** 1:06

**Link:** <https://youtu.be/Oy61RSvrECw>

Picking up after your pets isn't just polite, it's good for the environment!

[#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** GLRC “Brand” Anthem

**Length:** 2:00

**Link:** [https://youtu.be/dQH8Rq6\\_TPc](https://youtu.be/dQH8Rq6_TPc)

Our community is a member of the Greater Lansing Regional Committee for Stormwater Management, a group of communities working together to protect and improve water quality in the tri-county area. Visit [www.MyWatersheds.org](http://www.MyWatersheds.org) to learn about what the GLRC is up to and how you can get involved in stormwater protection! [#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** 5 Reasons to Install a Rain Barrel

**Length:** :57

**Link:** <https://youtu.be/RcvCvdPTQks>

Save money and prevent stormwater runoff by installing a rain barrel!  
[#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** Lawn Care

**Length:** 1:13

**Link:** <https://youtu.be/Oy61RSvrECw>

If you use too much fertilizer or apply it at the wrong time, it can easily wash off your lawn or garden, flow into storm drains, and enter and impact our waterways. Visit [MyWatersheds.org](http://MyWatersheds.org) for more stormwater smart lawn tips!  
[#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** Road and Sidewalk Salt

**Length:** 1:00

**Link:** <https://youtu.be/rFPdxKKw3R4>

Though much of it is distributed on roads by municipalities, about half of all salt is sold to private homes and businesses and used on driveways and parking lots. By storing it correctly, avoiding clumping, and only using as much as needed, businesses and homeowners can help minimize the consequences of salt pollution. [#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** Lawn Care

**Length:** 1:13

**Link:** <https://youtu.be/Oy61RSvrECw>

The way we mow, rake, and treat our lawns can impact both the quality and quantity of stormwater run-off.

Visit [www.MyWatersheds.org](http://www.MyWatersheds.org) to learn how to make your lawn stormwater smart.

[#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** Watershed Protection

**Length:** 1:36

**Link:** <https://youtu.be/klUjhB7Uj6M>

Contaminated run-off is the number one contributor to water quality impairment in the nation, but each of us can help change that.

Small actions, like picking up after our pets, properly maintaining vehicles, and limiting the use of lawn chemicals reduces the source of run-off contamination and protects our shared waterways.

Visit [www.MyWatersheds.org](http://www.MyWatersheds.org) to learn how you can get involved! [#PollutionIsntPretty](#)

[#Stormwater](#)



**Topic:** Septic Care

**Length:** 1:12

**Link:** <https://youtu.be/jlWYRQHffA4>

Septic and well system failures risk public health, ground and surface water quality, and can become a financial burden on the owner. Regularly inspect and clean your tank and system to ensure it is functioning properly.

[#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** Stormwater Basics

**Length:** :24

**Link:** <https://youtu.be/GJZ8x2pFlf0>

**#DYK** that most storm drains lead to rivers and streams, not a treatment plant? That means any pollution swept up with runoff can enter our shared water resources.

Visit [www.MyWatersheds.org](http://www.MyWatersheds.org) to learn how to reduce polluted runoff.

[#PollutionIsntPretty](#) [#Stormwater](#)

# SHORT VIDEOS

The following videos cover similar topics as the full length videos but were created for use as advertisements, specifically meeting the 15-second time limit for un-skippable ad plays on the GLRC YouTube channel.



**Topic:** Leaf Management

**Length:** :30

**Link:** <https://youtu.be/LCvTerxg5HO>

Leaves can easily clog storm drains and cause localized flooding and property damage. Also, once they've entered the storm sewer system, the decomposing leaves contribute excessive nutrients than can harm the health of our downstream waterways. Mulching is an easy and environmentally friendly solution!

Visit [www.MyWatersheds.org](http://www.MyWatersheds.org) for more stormwater smart tips!

[#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** Responsible Car Washing

**Length:** :14

**Link:** <https://youtu.be/jlWYRQHffA4>

Washing a car in a driveway or street sends oils, grease, and dirt into our waterways. A commercial facility is the best way to wash, as the waste water is treated. Check out [MyWatersheds.org](http://MyWatersheds.org) for other water protection tips.

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**Topic:** Storm Drains

**Length:** :14

**Link:** <https://youtu.be/EQTP87dekbY>

Did you know that most storm drains are NOT connected to treatment plants? By keeping pollutants off the ground, you help keep them out of our waterways.

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**Topic:** Rain Gardens

**Length:** :15

**Link:** <https://youtu.be/7PVoh8BGcPw>

Create a butterfly habitat, prevent flooding, and make your lawn more attractive by installing a rain garden! Learn how at MyWatersheds.org.  
[#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** Sweep for Stormwater

**Length:** :15

**Link:** <https://youtu.be/2GQXhaRA3IM>

Grass, leaves, lawn chemicals, and anything else on our roads and driveways can be swept up with stormwater runoff and enter storm sewers. After working in the yard, make sure to sweep up or blow back any waste off of hard surfaces (and not into the road!) to keep these pollutants from entering and impacting our waterways or clogging our drainage system.  
[#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** What's a Watershed?

**Length:** :15

**Link:** [https://youtu.be/\\_xVrlgcZcQQ](https://youtu.be/_xVrlgcZcQQ)

A watershed is an area of land that drains to a common point. That common point may be a lake, the outlet of a river, or any point within a river system. In the Grand River watershed, all land drains to Lake Michigan and eventually the Atlantic Ocean! This means that pollution on the ground at home can impact water quality much further downstream.  
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**Topic:** Pet Waste

**Length:** :15

**Link:** <https://youtu.be/-exNjcwczN8>

Picking up after your pets isn't just polite, it's good for the environment!  
[#PollutionIsntPretty](#) [#Stormwater](#)



**Topic:** Responsible Salting

**Length:** :15

**Link:** <https://youtu.be/bKKEEHGz7co>

Though much of it is distributed on roads by municipalities, about half of all salt is sold to private homes and businesses and used on driveways and parking lots. By storing it correctly, avoiding clumping, and only using as much as needed, businesses and homeowners can help minimize the consequences of salt pollution.

[#PollutionIsntPretty](#) [#Stormwater](#)



# SOCIAL MEDIA

The GLRC Coordinator handles all permit responsibilities for social media posting; municipalities are not required to post stormwater content. However, the content is available to you. If you choose to post material relevant to the MS4, keep a record of it on the GLRC PEP Tracking spreadsheet. This information can be reported to EGLE in future audits and reporting.

Follow and share posts from the GLRC Facebook page ([Facebook.com/GLRC4Stormwater](https://www.facebook.com/GLRC4Stormwater)), or post your own. The following examples can be used or adapted as needed, and all photos are available to download at [mitcrpc.box.com/v/GLRCMediaToolkitImages](https://mitcrpc.box.com/v/GLRCMediaToolkitImages).

# PET WASTE

## Sample Posts



Is your pup this talented?

If not, it's important that you pick up after them! Proper pet waste management protects our waterways and prevents the spread of disease. And, of course, it's the polite thing to do!

Learn more about the water quality impacts of pet waste at [www.mywatersheds.org/pet-waste-management](http://www.mywatersheds.org/pet-waste-management)!

[#PollutionIsntPretty](#) [#Stormwater](#)  
[#DoYourDoody](#)

Your yard might be more polluted than you think! Pets can impact water quality even if they don't live near the water.

Picking up after your pet keeps disease causing bacteria out of the water and is an easy way to keep our rivers and streams safe for recreation and aquatic life.

Learn more ways at [www.mywatersheds.org/pet-waste-management](http://www.mywatersheds.org/pet-waste-management)

[#PollutionIsntPretty](#) [#Stormwater](#) [#DoYourDoody](#)

Picking up after your pets isn't just polite, it's good for the environment!

[#PollutionIsntPretty](#) [#Stormwater](#) [#DoYourDoody](#)

The waste produced by dogs and cats in the Tri-County area is about the same as what 50,000 people-equal to the population of East Lansing-would produce.

Unless we all do our part and pick up after them, pet waste (and the bacteria in it) will enter our watershed with no treatment.

Learn other ways to protect our water at [MyWatersheds.org](http://MyWatersheds.org)! [#PollutionIsntPretty](#)  
[#Stormwater](#) [#DoYourDoody](#)

Keep the environment (and your neighbors) happy. Pick up after your pet!

American dogs produce 10 million TONS of waste each year, and one gram alone can contain 23 million fecal coliform bacteria. When left on the ground, this pup pollution can be picked up by stormwater runoff, enter drains, and discharge into our rivers and streams.

Bag it or flush it, but if it's left on the ground, it can get to the water.

Do your part and learn more at [www.mywatersheds.org/pet-waste-management](http://www.mywatersheds.org/pet-waste-management)

[#PollutionIsntPretty](#) [#Stormwater](#)

# PET WASTE

Sample Photos





# WHY SCOOP?

## 6 Unsettling Facts About Dog Waste

### Did you know?

**72.8 million** dogs currently live in the United States. **30,000 tons** of waste is collectively produced every day. That's **10 million tons** of dog waste produced every year.

That's a lot of dog poop, but what exactly is it doing to our **environment**?

**1 Dog waste is NOT fertilizer for your lawn.**  
In fact, it is just the opposite and can be very toxic to your soil. Due to their high-protein diet, dog waste is highly acidic and will actually burn your grass creating brown patches.



**2 Just one gram of dog waste can contain as many as 23 million fecal coliform bacteria.**  
Waste can seep into groundwater and spread salmonella and giardia. This poses a hazard to your pets, your family, and your landscape.



**4 Dog fecal matter is a major contributor to stormwater pollution.**  
One out of three households have at least one dog, and all that dog poop left out can be blown into storm drains, lakes, and streams. When in water, the liquefied waste consumes the oxygen and releases ammonia, which contaminates our resources as well as harms the fish that reside there.



**3 Your lawn mower doesn't help, in fact can make it worse.**  
Mowers will actually chop up the waste into smaller pieces and spread it further throughout your yard where you, your children, and your pets continue to step in it and then bring it into your home.

**6 The Centers for Disease Control (CDC) confirms that hookworms, ringworms, tapeworms and Salmonella can be spread by contact with infected dog waste.**  
It can take over one year for dog waste to decay, but even when it has visibly disappeared, the parasite eggs it contained can linger on for years in your soil – leaving your family and your pets vulnerable to serious infection.



**5 The EPA classified dog waste as a dangerous pollutant in the same category as toxic chemicals and oil.**  
The average dog discards approximately three quarters of a pound of waste per day, which adds up to 275 pounds per year. Your yard might be more polluted than you think.



### What you can do

Bag it and trash it, **ALWAYS**.

Hire a local **pet waste removal company** to clean your yard on a routine basis.

Sources: Centers for Disease Control and Prevention, Environmental Protection Agency, PetPooSkidoo.com

# LAWN CARE, FERTILIZER, & LEAF MANAGEMENT

## Sample Posts



It's Spring! That means the grass is growing, the mowers are mowing, and the stormwater runoff is flowing. But if we're not mindful, those things can add up to clogged drains, flooded streets, and decreased oxygen levels in our waterways.

Keep grass clippings out of roads and storm drains by pointing the mower blower inwards for the first few passes and sweeping clippings off of paved surfaces.

Also, try mulch mowing. It'll save you time and help the environment. Grass clippings decompose quickly, provide nutrients for your lawn, and help create an organic layer on the soil that encourages stormwater infiltration. Not only does this reduce the need for chemical fertilizers, it means you won't need to rake!

For more tips, visit [www.mywatersheds.org](http://www.mywatersheds.org)!

[#PollutionIsntPretty](#) [#Stormwater](#)



It's hot out there! But that doesn't mean you need to water the yard.

Depending on the region, homeowners use between 30 and 70 percent of their water outdoors and half of it is lost to evaporation, wind, or runoff from overwatering. That isn't only hard on your wallet, it's bad for the environment! Overwatering is wasteful and excess water can wash lawn chemicals into rivers and streams via storm drains.

What can you do?

Step on it! Grass doesn't always need water just because it's hot out (and it isn't really meant to be bright green in the middle of the summer). Step on the lawn. If the grass springs back, it doesn't need water.

Leave it long! Raise your mower blade to its highest setting. Longer grass promotes deeper root growth, resulting in a drought resistant lawn, reduced evaporation, and fewer weeds.

Time it right! If you must water your lawn, do it in the morning or later evening when it's cooler. In the heat of the day, significant amounts of water are lost to evaporation.

Responsible lawn care promotes groundwater conservation and surface water protection, but also saves you time and money!

For more tips, visit [www.mywatersheds.org](http://www.mywatersheds.org)! [#PollutionIsntPretty](#) [#Stormwater](#)

Fall is upon us! As those beautiful leaves come down, many dread the task of raking them all up. Save your back by mulch mowing!

Set your mower to its highest setting, chop up those leaves, and leave them to fertilize your lawn. It'll keep your soil and our rivers healthy.

Large bunches of leaves can blow into stormwater drains, clog them and cause localized flooding. Since many of those drains lead directly to surface water, high amounts of decaying leaves in the system can contribute to nutrient loading and starve aquatic life of oxygen.

If your community offers curbside loose leaf pickup, make sure to keep the piles clear of curb drains! It will improve road drainage and the health of the watershed.

For more tips, visit [www.mywatersheds.org](http://www.mywatersheds.org)!

[#PollutionIsntPretty](#) [#Stormwater](#)



#DYK that leaves can impact water quality and drainage systems?

In developed areas, leaf litter is often washed or blown into stormwater systems that discharge into rivers and streams. Not only do leaves clog the drainage system, they can concentrate in our waterways and decay, leading to algal blooms and low oxygen levels. Nearly 60% of the annual phosphorus yield in our waterways can come from leaf litter in the fall!

You can mulch mow your leaves, compost them, or utilize a curbside pickup, but always make sure to keep leaves from blowing into the street and drains!

[#PollutionIsntPretty](#) [#Stormwater](#)



# LAWN CARE, FERTILIZER, & LEAF MANAGEMENT

Sample Photos





## SAVE WATER IN THE YARD THIS SUMMER

By International Day of the Girl, to save for outdoor water use, think of lawn and landscape.



**29 billion gallons** of water  
wasted each day across the U.S.

**9 billion gallons** come  
from daily residential outdoor water  
use, ready for landscape irrigation.

→ **Water can be saved  
in the garden.**

Depending on the region,  
homeowners can **30-60%**  
of their water bill with:

**50%** of that is  
wasted. In part, due  
to overwatering.





Family with 3 people use  
**120 gallons per day**



Complete lawn care services  
**1,000 gallons per day**



Overwatering can waste  
**3,000 gallons per day**



Leaving a sprinkler  
running for **8 hours!**



### Simple Things We Can All Do

**Step on it!**  
Walk on the lawn with shoes  
during heavy watering  
sessions.

**Leave it long!**  
Longer grass promotes a firm  
soil surface that reduces  
evaporation and holds water.

**Take a sprinkler  
break!**  
Give soil and plants  
a break from overwatering.



### Simple Things Irrigation System Owners Can Do

Investments in efficient irrigation systems can pay for them. 80% more water savings.

**Timing is everything!**

Push or pull in the early morning or  
evening to reduce evaporation.



**Go with a pro!**

Consult a certified irrigation professional  
to design a system that meets your needs.  
Investing in a professional system can save water in the long  
run by reducing evaporation and runoff.



**Look for the labels!**

A water-efficient system is one  
that has been certified by a  
third-party organization and  
that meets the standards for your area, using water-efficient  
products and practices. They  
can reduce irrigation water use by 50% while saving  
**8,800 gallons** of water per year.



**Tune up your systems!**

Inspect & repair existing systems with  
a certified irrigation professional.

Investing in a certified irrigation system can save water in the long  
run by reducing evaporation and runoff.

Save money and water with a certified irrigation system.  
**20,000** gallons  
of water and **\$500+** per year in water savings.

For more information, visit [www.netaid.org](http://www.netaid.org).

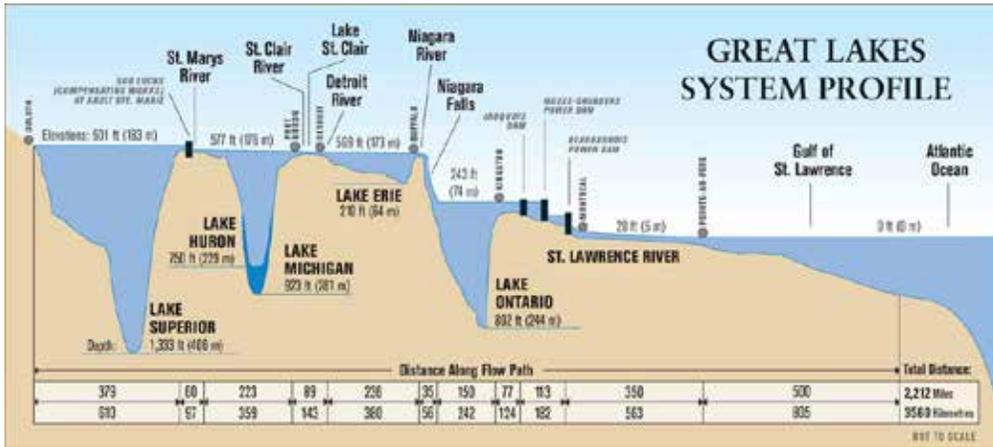


WaterSense, a partnership program by the U.S. Environmental Protection Agency, works  
to protect the future of our nation's water supply. For more tips on reducing outdoor  
water use, visit [www.epa.gov/watersense/labels](http://www.epa.gov/watersense/labels).



# WATERSHEDS & POLLUTION PREVENTION

## Sample Posts



Scary thought: used motor oil, travel trailer waste, and household chemicals that are illegally dumped into a storm drain are piped to our rivers, lakes and streams without undergoing treatment.

Learn where to report illegal dumping at [www.MyWatersheds.org/REPORT](http://www.MyWatersheds.org/REPORT)

#PollutionIsntPretty #Stormwater

#DYK that no matter where you are, you're in a watershed? Check out the GLRC's Find My Watershed tool to learn which watershed you call home and how you can help protect it!

[www.mywatersheds.org/find-my-watershed](http://www.mywatersheds.org/find-my-watershed)

#PollutionIsntPretty #Stormwater

We know the Great Lakes drain into the Atlantic Ocean, but have you ever wondered why?

Simply put, it's gravity! Gravity pulls water downhill as fast as it can taking the easiest path it can find. Water will flow down a hill until it reaches the bottom, and in the Great Lakes system, the "bottom" is sea level. Check out the graphic to see the elevations and depths of the Great Lakes system and visualize the water's path.

Why does this matter in our daily lives? Think about Michigan's capital city of Lansing which sits at 860ft above sea level. Runoff water in Lansing is seeking "the bottom", or sea level (0ft), and will travel through rivers, streams, and storm drains on its way to Lake Michigan and beyond. Pollutants, like leaking vehicle fluids, detergents from washing cars, and even the bacteria in pet waste can "hitch a ride" with the water and accumulate downstream. In urban areas, storm drains collect runoff water and discharge it, untreated, into water bodies as well.

This means that our actions at home will impact things much further away. Storm sewers in your neighborhood send would-be flood waters into rivers and streams, but anything we leave on the ground or on the roads can be swept along with it, flow "downhill", and throughout the Great Lakes Basin. The cleaner we keep our own area, the healthier the overall system.

With water resource management, always consider the gravity of the situation!

Visit [www.MyWatersheds.org](http://www.MyWatersheds.org) to learn more! #PollutionIsntPretty #Stormwater

Everyone in the world lives in a watershed. Which do you live in?

[www.mywatersheds.org/find-my-watershed](http://www.mywatersheds.org/find-my-watershed)

#PollutionIsntPretty #Stormwater



Catch basins are designed to collect water during wet weather events and move it from developed areas into our rivers and streams. However, any pet waste, oil, litter, leaves, etc that is flushed into a catch basin can enter and impact our shared surface waters.

You can protect our water resources by adopting a catch basin near your home or work! Make a point to regularly (and safely) remove any accumulation of leaves, debris, and litter near the catch basin and properly dispose of it. Avoid blowing or raking leaves into the street, and wash your car at a car wash facility or on the grass to keep suds and grease from flowing into the storm drains.

Keeping catch basins clear of debris can help improve water quality and reduce localized flooding! Do your part by adopting a catch basin and notifying your local public works department of any illegal dumping into these drains.

Learn more at [www.MyWatersheds.org](http://www.MyWatersheds.org)!

[#PollutionIsntPretty](#) [#Stormwater](#)



The Greater Lansing area is part of the Grand River Watershed, where all land drains to the Grand River (the longest in Michigan) before it discharges into Lake Michigan at Grand Haven. This means that any contaminants on the ground within the watershed boundary can be swept up by rain runoff and impact water resources much further “downstream.” Excess fertilizer, bacteria from pet waste, and oils from leaking vehicles are common pollutants that are picked up and concentrated as they move through the watershed. Keeping them off the ground helps keep them out of our waterways.

It doesn't matter if you live miles from a river or a couple hours drive from the beach, your actions have a direct impact on Lake Michigan.

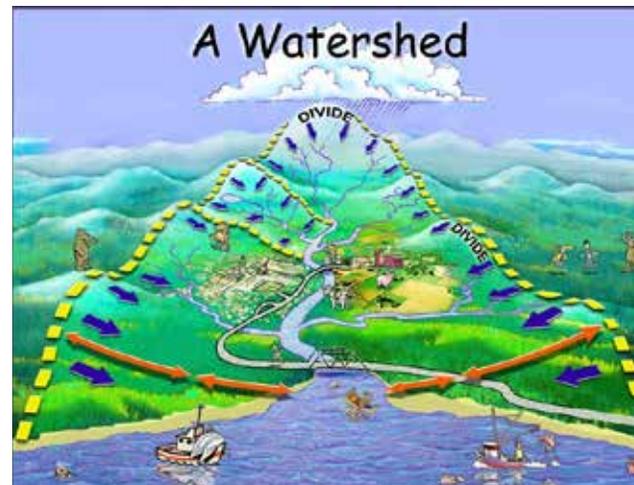
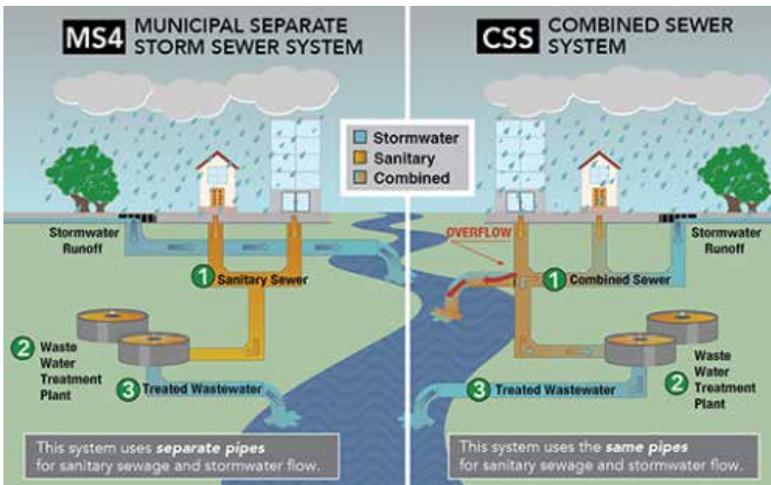
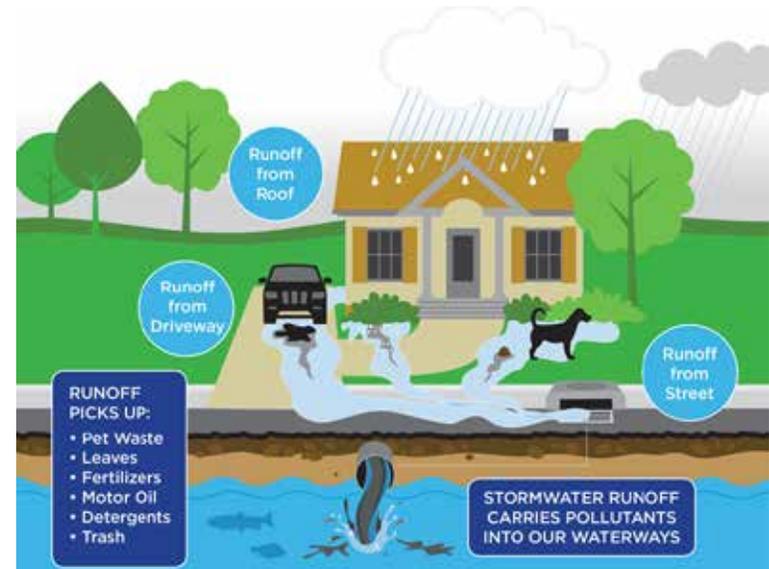
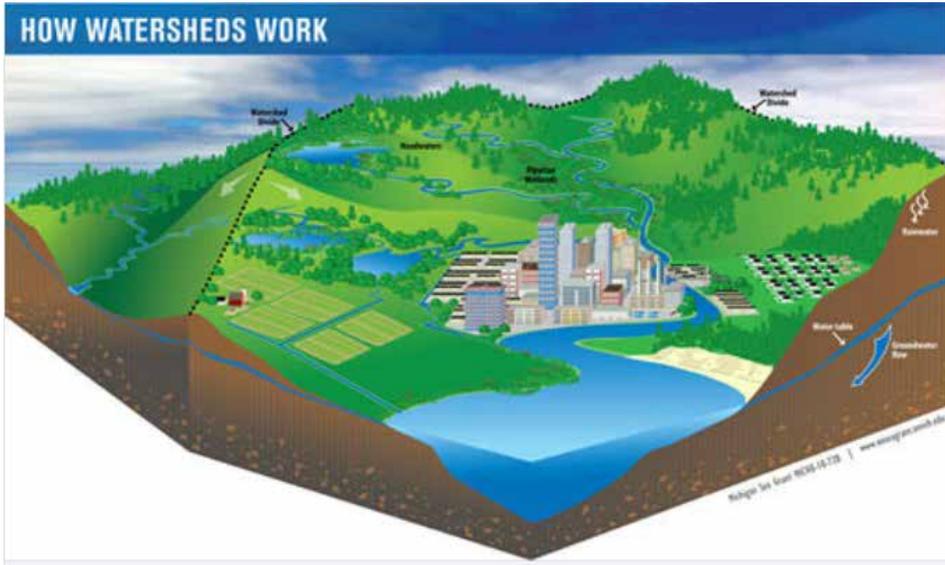
Learn how to keep it healthy at [www.mywatersheds.org](http://www.mywatersheds.org).

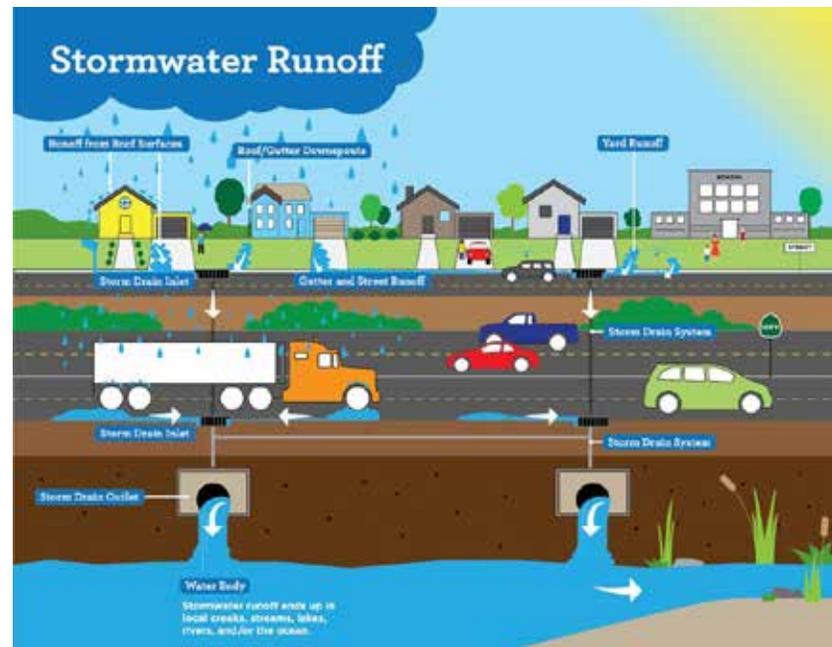
[#PollutionIsntPretty](#) [#Stormwater](#)



# WATERSHEDS & POLLUTION PREVENTION

Sample Photos





# SEPTIC SYSTEMS

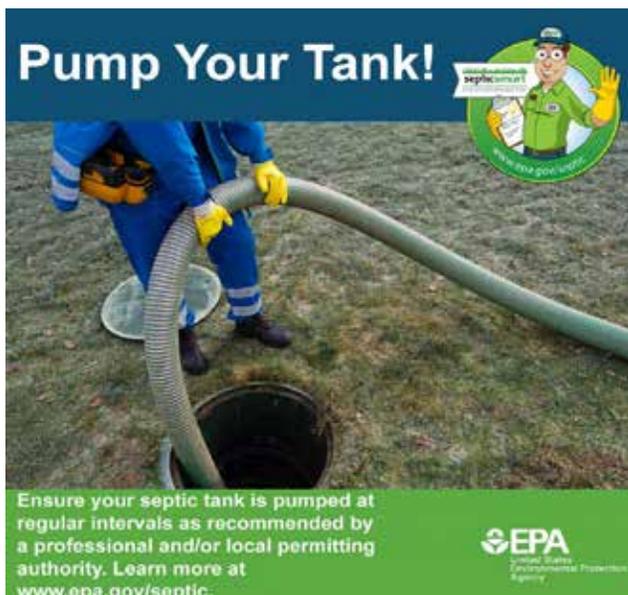
## Sample Posts



#DYK More than 1.3 million homes and businesses in Michigan depend on septic systems to treat wastewater? If not maintained, failing septic systems can contaminate groundwater and harm the environment by releasing bacteria, viruses, and household toxics to local waterways. Proper septic system maintenance protects public health, the environment, and saves the homeowner money through avoided costly repairs.

Do your part. Be Septic Smart!

#PollutionIsntPretty #Stormwater



Pump Your Tank!

Did you know a typical septic tank needs to be pumped every 3 – 5 years on average? Properly caring for a septic system can be challenging if you've never owned a septic system before. Check out maintenance tips at [www.epa.gov/septic/septic-systems-outreach-toolkit](http://www.epa.gov/septic/septic-systems-outreach-toolkit)

#PollutionIsntPretty #Stormwater



Don't Strain Your Drain! #septicmart

#PollutionIsntPretty #Stormwater

Did you know that poorly maintained septic systems can impact our water resources? Bacteria, nutrients, and other contaminants can leech from septic systems and end up in our drinking water and waterways, threatening public health and water quality.

For tips on septic maintenance, check out [www.mywatersheds.org/be-septic-smart!](http://www.mywatersheds.org/be-septic-smart!) #PollutionIsntPretty #Stormwater

# SEPTIC SYSTEMS

Sample Photos



Please note: Septic systems vary. Diagram is not to scale.



**Protect It and Inspect It!**



Regular septic system maintenance can save homeowners thousands of dollars and protect public health. Learn more at [www.epa.gov/septic](http://www.epa.gov/septic).



**Think at the Sink!**



What goes down your drain has a big impact on your septic system. Avoid harsh chemicals and use cleaners/detergents in moderation. Learn more at [www.epa.gov/septic](http://www.epa.gov/septic).



**Don't Overload the Commode!**



A toilet is not a trashcan. Disposable diapers and wipes, feminine hygiene products, cigarette butts, cat litter and much more can damage your septic system. Learn more at [www.epa.gov/septic](http://www.epa.gov/septic).



**Have a septic system?**  
 Call your service provider to have  
 your septic system serviced today.

Regular septic system maintenance  
 can save you thousands of dollars!



EPA  
 830-F-190-05 | May 2019

**Keep it Clean!**



If you have a well, many things can  
 contaminate your drinking water, such  
 as a failing septic system. Test your  
 well water regularly! Learn more at  
[www.epa.gov/septic](http://www.epa.gov/septic).

EPA  
 United States  
 Environmental Protection  
 Agency

**Top 10 Ways to Be  
 a Good Septic Owner**

- ✓ Have your system inspected every three years by a qualified professional or according to your state/local health department's recommendations
- ✓ Have your septic tank pumped, when necessary, generally every three to five years
- ✓ Avoid pouring harsh products (e.g., oils, grease, chemicals, paint, medications) down the drain
- ✓ Discard non-degradable products in the trash (e.g., floss, disposable wipes, cat litter) instead of flushing them
- ✓ Keep cars and heavy vehicles parked away from the drainfield and tank
- ✓ Follow the system manufacturer's directions when using septic tank cleaners and additives
- ✓ Repair leaks and use water efficient fixtures to avoid overloading the system
- ✓ Maintain plants and vegetation near the system to ensure roots do not block drains
- ✓ Use soaps and detergents that are low-suds, biodegradable, and low- or phosphate-free
- ✓ Prevent system freezing during cold weather by inspecting and insulating vulnerable system parts (e.g., the inspection pipe and soil treatment area)



septicSMART  
 U.S. Environmental Protection Agency

For more SepticSmart tips, visit [www.epa.gov/septicSMART](http://www.epa.gov/septicSMART)  
 EPA 832-P-16-010 July 2016

**Shield Your Field!**



Tree and shrub roots, cars, and livestock  
 can damage your drainfield. Learn more  
 at [www.epa.gov/septic](http://www.epa.gov/septic).

EPA  
 United States  
 Environmental Protection  
 Agency

# GREEN INFRASTRUCTURE

## Sample Posts

Ever wonder how many gallons of stormwater runoff are generated by your home?

To find out, simply calculate: roof area (sq. ft) X rainfall (inches) X .623

That means if we receive one inch of rain, a typical 1500 square foot roof could yield over 935 gallons of runoff! Add an asphalt or concrete driveway and that number climbs even higher.

You likely use gutters and downspouts to keep all that water away from your home's foundation, but there are also ways to reduce yard flooding by capturing runoff or infiltrating it into the ground.

For example: rain gardens capture runoff in a depressed area of the landscape, allowing water to be absorbed by deep rooted plants and percolated deeper into the soil. Permeable driveways are made of material that allows water to flow through it, reducing the runoff volumes while filtering pollutants through an underlying gravel bed. Rain barrels collect rain from downspouts, saving the water for later use around your home and garden.

These can reduce wet-weather problems at home, but they can also improve water quality further "downstream." Since most storm sewers lead directly to rivers and streams, pollutants on the ground or your driveway can be swept up by rain water and discharged into our shared surface waters. Rain gardens and barrels capture water that could otherwise carry fertilizers, salt, leaking oil, and even bacteria from pet waste into aquatic habitats. The better we manage runoff at home, the healthier the overall watershed.

By capturing and infiltrating stormwater runoff at home, you can help protect your home, lessen your impact on the watershed, and reduce localized flooding!

Visit [MyWatersheds.org](http://MyWatersheds.org) for more information!

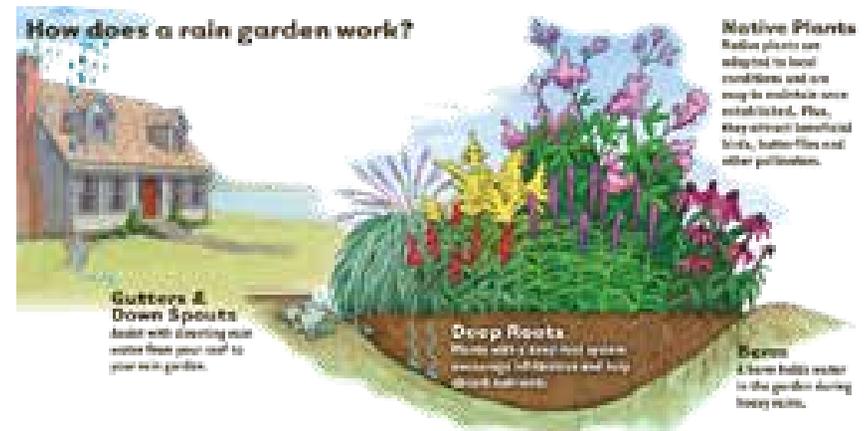
[#Raingarden](#) [#Stormwater](#) [#GreenInfrastructure](#) [#PollutionIsntPretty](#)

Are you dreaming of spring and looking for a fun warm weather project? Then you should consider planting a rain garden!

Rain gardens capture stormwater runoff from impervious surfaces like roofs and driveways, allowing it to absorb into the ground rather than enter a storm sewer system. Less runoff means less pollution in our waterways, and native plants are low maintenance, prevent flooding, attract pollinators, and save you time and money!

Calculate how many gallons of runoff your home produces each year (and how you can capture it with green infrastructure) at [www.mywatersheds.org/rain-garden-101](http://www.mywatersheds.org/rain-garden-101)

[#Raingarden](#) [#Stormwater](#) [#GreenInfrastructure](#) [#PollutionIsntPretty](#)



Rain gardens capture stormwater runoff from impervious surfaces like roofs and driveways, allowing it to absorb into the ground rather than enter a storm sewer system. Less runoff means less pollution in our waterways, and native, low maintenance plants can help prevent yards from flooding, attract butterflies, and save you time and money!

Want to learn about native plants, rain gardens, and see how many gallons of runoff your home produces each year? Visit [www.mywatersheds.org/rain-garden-101](http://www.mywatersheds.org/rain-garden-101)!

#Raingarden #Stormwater #GreenInfrastructure #PollutionIsntPretty

Looking for an outdoor activity? Check out the GLRC's Green Infrastructure Bike Tour!

Follow the Google Map and printable brochure to visit and learn about examples of green stormwater infrastructure along the regional trails system.

If you've been interested in potentially installing a rain garden or permeable pavement at your home, this is a great way to see how they look and operate!

Find the brochure and Google Map link at [www.mywatersheds.org/biketour](http://www.mywatersheds.org/biketour).

#PollutionIsntPretty #Stormwater #GreenInfrastructure

**Greater Lansing Stormwater Stops**

Michigan's capital area boasts a diversity of green stormwater infrastructure (GSI) projects of which you are likely to be familiar. Follow this guide to see potential projects near gardens, urban centers and more! We encourage you to contact all cities and local governments which operate the map.

**Water Stop: 0.7 Miles**  
Duration: 3-4 hours

**KEY**  
1. Suggested stops  
2. Water Stop

**1 Sedimentation**  
The Sedimentation Stop is an important area that captures sediment and debris from stormwater runoff. This helps prevent sediment from entering the waterways and keeps the water clean.

**2 Green Roofs**  
Green roofs are roofs that are covered with vegetation. They help absorb rainwater and reduce runoff. They also provide a natural habitat for birds and insects.

**3 Rain Gardens**  
Rain gardens are small, landscaped areas that capture and absorb rainwater. They help reduce runoff and improve water quality.

**4 Rain Barrels**  
Rain barrels are containers that collect rainwater from a roof. They can be used to water plants or for other household uses.

**5 Rainwater Harvesting**  
Rainwater harvesting is the process of collecting and storing rainwater for later use. It can be used for irrigation, cleaning, and other household uses.

**6 Permeable Pavement**  
Permeable pavement allows water to pass through it into the ground. This helps reduce runoff and improve water quality.

**7 Rainwater Cisterns**  
Rainwater cisterns are large containers that collect and store rainwater. They can be used for irrigation, cleaning, and other household uses.

**8 Rainwater Harvesting**  
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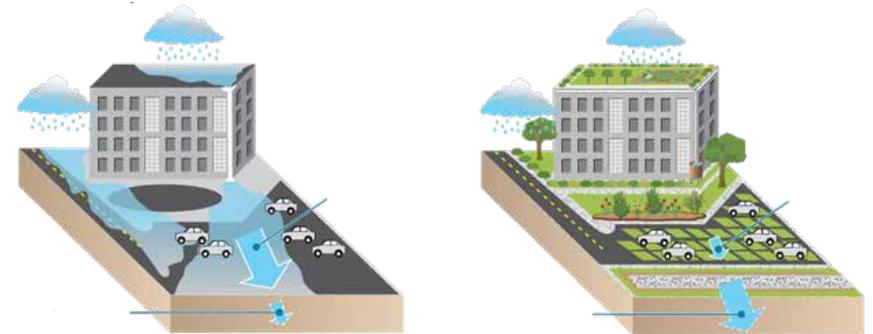
**22 Rainwater Harvesting**  
Rainwater harvesting is the process of collecting and storing rainwater for later use. It can be used for irrigation, cleaning, and other household uses.

When rainwater falls on a natural landscape, the vegetation and soils collect and absorb much of it. But when rainwater falls on impervious surfaces like a parking lot or rooftop, the water flows off into storm drains and drainage ditches. Pollutants such as pet waste, chemical fertilizers and leaking motor oil are swept up with the runoff that eventually discharges into our lakes, rivers, and streams without undergoing any treatment.

Green infrastructure mimics natural landscapes by capturing excess runoff on site, reducing runoff volumes and filtering out pollutants that would otherwise enter and impact our surface water resources. You can help protect local water quality by utilizing a rain barrel, planting a rain garden with deep rooted native plants, and incorporating other forms of green infrastructure at your home.

Visit [MyWatersheds.org](http://MyWatersheds.org) for ideas, planting guides, and other green infrastructure resources!

#PollutionIsntPretty #Stormwater #GreenInfrastructure



Rain barrels are a great way to capture and reuse runoff from your roof! Not only can you save money by using it to water your plants, you're reducing the volume of runoff that would normally wash pollutants like lawn fertilizers and bacteria off yards and into streams. #PollutionIsntPretty #Stormwater

Interested in other ways to capture run-off? Visit the Greater Lansing Regional Committee for Stormwater Management's website to learn how to install a rain garden, find rain barrel resources, and learn about the different types of green infrastructure that's installed around the Lansing area.

[www.mywatersheds.org/local-green-infrastructure-projects](http://www.mywatersheds.org/local-green-infrastructure-projects)

#PollutionIsntPretty #Stormwater #GreenInfrastructure

# GREEN INFRASTRUCTURE

Sample Photos



# ROAD SALT

## Sample Posts

Road salt makes winter driving safer, but it can also impact the health of our waterways. By storing it correctly, avoiding clumping, and only using as much as needed, businesses, homeowners, and municipalities can all help minimize the consequences of salt. [#PollutionIsntPretty](#) [#Stormwater](#)

Be sure to keep any road salt or deicing material stowed safely in a weather-proof location and use only what is needed to match weather conditions. This lessens the chance of potential stormwater pollution and groundwater contamination.

The concentration of chloride is increasing in our surface and groundwater largely due to stormwater runoff from road salt storage piles, areas of excessive application, or simply from years of repeated application since chloride does not degrade in soil and water. Chloride in road salt and road salt additives can create toxic conditions for fish, insects and vegetation. Sodium from road salt can compromise soil structure thereby reducing its water retention capacity and increasing the potential for erosion. It can also reach levels in groundwater that pose drinking water problems.

While a lot of salt is distributed by municipalities around the area, they are regulated to ensure proper storage, staff training, and truck calibration in order to limit usage to the minimal amount necessary for public safety. With half of all salt

Learn more about preventing stormwater pollution:

Visit [www.MyWatersheds.org](http://www.MyWatersheds.org) for more water protection tips!

[#PollutionIsntPretty](#) [#Stormwater](#)

Be Salt Smart.

- 1) Road salt only works above 15 degrees. Use sand when the temp drops lower.
- 2) A 12-oz cup of salt is enough to cover about 10 sidewalk squares.
- 3) It works best when applied before a snowfall or after shoveling/plowing.
- 4) Never apply salt if it's going to rain, since it will just wash into our creeks. One teaspoon of salt can pollute 5 gallons of water.

Visit [MyWatersheds.org](http://MyWatersheds.org) for more stormwater tips!

[#PollutionIsntPretty](#) [#Stormwater](#)

As we enter winter, it's important to be mindful of how salt usage can impact water quality, plant health, and even your pet!

In many areas, road and driveway salt dissolves in melted snow and ice, flows into storm drains, and is discharged into our rivers and streams (not a treatment plant). This saline water enters our shared surface waters and harms aquatic habitats.

Your yard can be impacted as well. Salt lowers the PH of soil, inhibiting nutrient and water transfer for the plants that grow there. If salt levels get high enough, the soil can become too toxic for any plant growth.

Salt also irritates your dog's paws! It can lead to sore, cracked pads, and they may ingest the salt while licking their paws clean.

So what can you do? Reduce your use!

Shovel first, use only as much salt as necessary to match current site conditions, avoid spreading clumps, and explore salt alternatives. And of course, use none if it's possible or safe!

Salting is often an important, necessary public safety measure (especially on roads), but some research has shown that half of all salt application is applied by homeowners and businesses. If we all take steps to reduce salt usage where we can, it can make a difference!

Visit [www.MyWatersheds.org](http://www.MyWatersheds.org) for more water protection tips!

[#PollutionIsntPretty](#) [#Stormwater](#)

# ROAD SALT

Sample Photos



# CAR WASHING

## Sample Posts

We all want to ride in style, but did you know that vehicle washing can contribute pollutants to our rivers and streams?

When washing vehicles in driveways, streets, and parking lots, the soap suds, grease, and dirty water-runoff typically flows along the curb and into a storm drain before it empties into a creek or river. Bad news for the aquatic life that depend on those habitats and for the people that enjoy them.

Looking for an environmentally friendly option? The best choice is to use a commercial car wash operation. The detergents, heavy metals, and particulates from brake linings and rust are collected and sent through the sanitary sewer system where the water is treated and filtered before being discharged into the environment.

If you must wash your car at home, use environmentally friendly (phosphate-free) soaps and wash the car over grass to let the soil filter out the water. When you're done, pour the remaining soapy water down the sink, not the street.

We all want a clean ride, but there are ways to have one without dirtying our waters.

Visit [www.MyWatersheds.org](http://www.MyWatersheds.org) for more info!

[#PollutionIsntPretty](#) [#Stormwater](#)



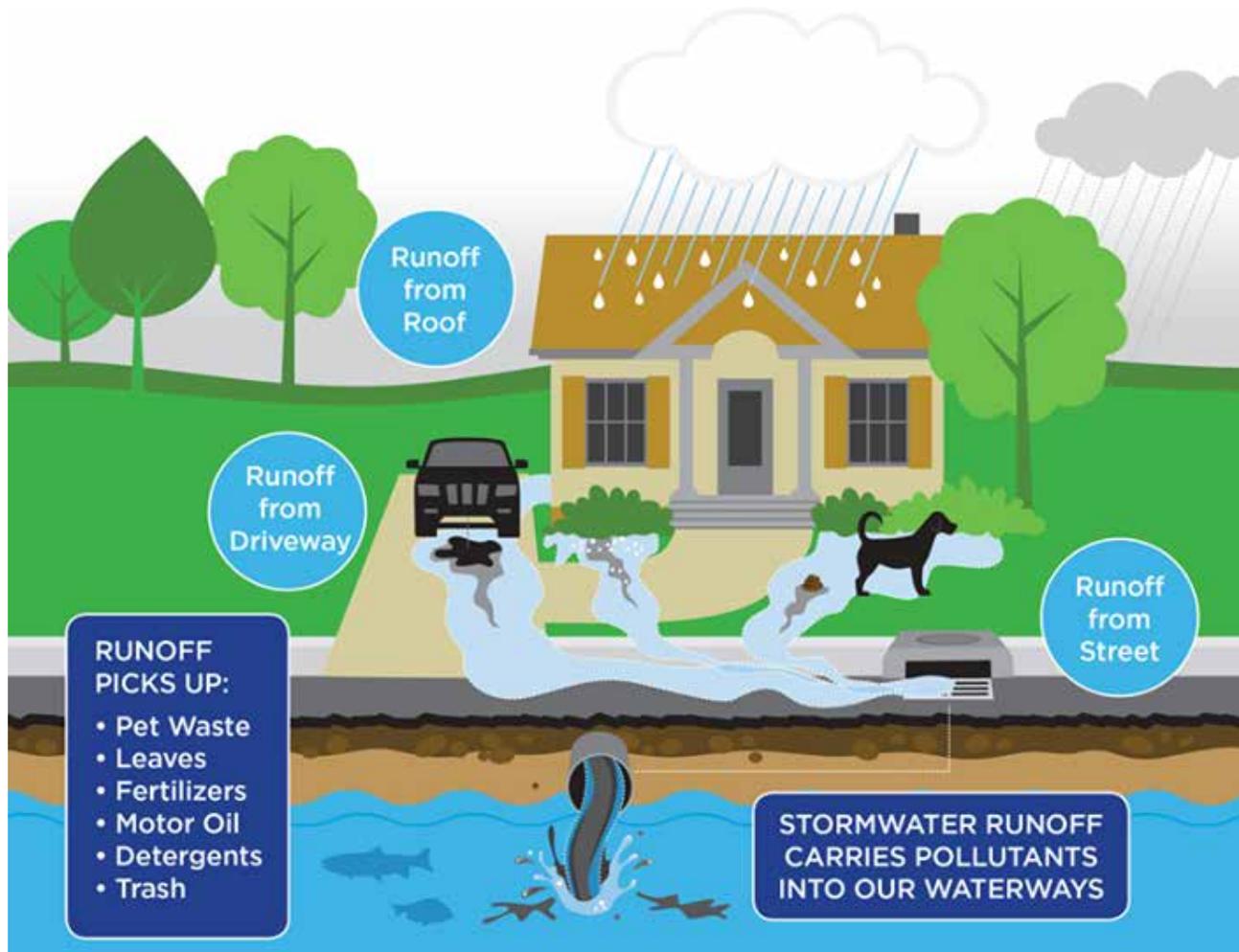
#DYK It's best to wash your car at the car wash? There, waste water is treated. At home, soaps, oils and greases flow off driveways and into stormdrains that discharge into our local waterways.

[#PollutionIsntPretty](#) [#Stormwater](#)



# CAR WASHING

Sample Photos



# MOTOR OIL & HAZARDOUS WASTE

## Sample Posts

### Don't Drip and Drive!

Most oil pollution is different than the pictures you see of oil covered beaches or large spills. In fact, poorly maintained vehicles are one of the biggest contributors of oil to our waterways. Leaking automotive fluid goes from car to street, street to storm drain, and from the drain to our rivers, lakes and streams. With over 250 million cars on the road, small spills add up to big problems.

### The fix? Stop the drips!

Check for fluid leaks regularly and fix them promptly. If you maintain your vehicle at home, use a drip pan to collect fluids for proper disposal or recycling. Clean up spills with a rag or absorbent - not water. And if you take your car to a mechanic, ask how they dispose of fluids and make sure they handle them in an environmentally-responsible way.

Just one pint of motor oil can create a slick larger than a football field and it's estimated that Americans spill 180 million gallons of used oil each year. By quickly fixing leaks, you can help protect your ride and our water resources.

[#PollutionIsntPretty](#) [#Stormwater](#)



Remember that household items like paints, used motor oil, and pesticides can pollute our waterways if not stored, used, or disposed of properly!

Whenever you're organizing your home or garage, it's important to make sure these items are properly stored, or are ready for proper disposal and recycling later. Visit our website at [www.mywatersheds.org/wastedisposal](http://www.mywatersheds.org/wastedisposal) for a list of local recycling resources to help you game plan.

[#PollutionIsntPretty](#) [#Stormwater](#)

Did you know that Americans spill or improperly dispose of an estimated 180 million gallons of used oil into our waters each year?

That's 16 times the amount spilled during the Exxon Valdez disaster in Alaska, and just one pint of oil can create a slick the size of a football field!

Since storm drains lead to surface water without undergoing treatment, oil on the ground is swept up by rain water and discharged into our creeks, rivers, and eventually the Great Lakes. Pouring automotive fluids into a storm sewer has the same effect as dumping them directly into our shared waterbodies.

Properly maintaining our vehicles, identifying, stopping, and cleaning up leaks, storing oil in containers with tight fitting lids, and recycling used oil at auto supply stores or at household hazardous waste collection events can help keep oil off our roads, yards, and driveways, therefore out of our water ways.

To learn more about preventing stormwater pollution, visit [www.mywatersheds.org/your-role-in-water-protection](http://www.mywatersheds.org/your-role-in-water-protection)

[#PollutionIsntPretty](#) [#Stormwater](#)

# MOTOR OIL & HAZARDOUS WASTE

Sample Photos



# REPORTING POLLUTION

## Sample Posts

Most storm sewers lead directly to rivers and streams - not a treatment plant - so anything that goes into them ends up in our surface water resources. Not only is it bad for the environment, dumping into a storm drain is illegal.

Keep it clean and visit [www.mywatersheds.org/illicit-discharges](http://www.mywatersheds.org/illicit-discharges) to learn more about illicit discharges and ways to report them.

[#PollutionIsntPretty](#) [#Stormwater](#)



If you see a spill or someone dumping into a storm drain, do you know who to call?

You can call the Michigan Pollution Alerting System (PEAS) hotline at 800-292-4706 or your municipality directly. Visit [MyWatersheds.org/REPORT](http://MyWatersheds.org/REPORT) for a list of DPW contacts in the area!

[#PollutionIsntPretty](#) [#Stormwater](#)

Scary thought: used motor oil, travel trailer waste, and house-hold chemicals that are illegally dumped into a storm drain are piped to our rivers, lakes and streams without undergoing treatment.

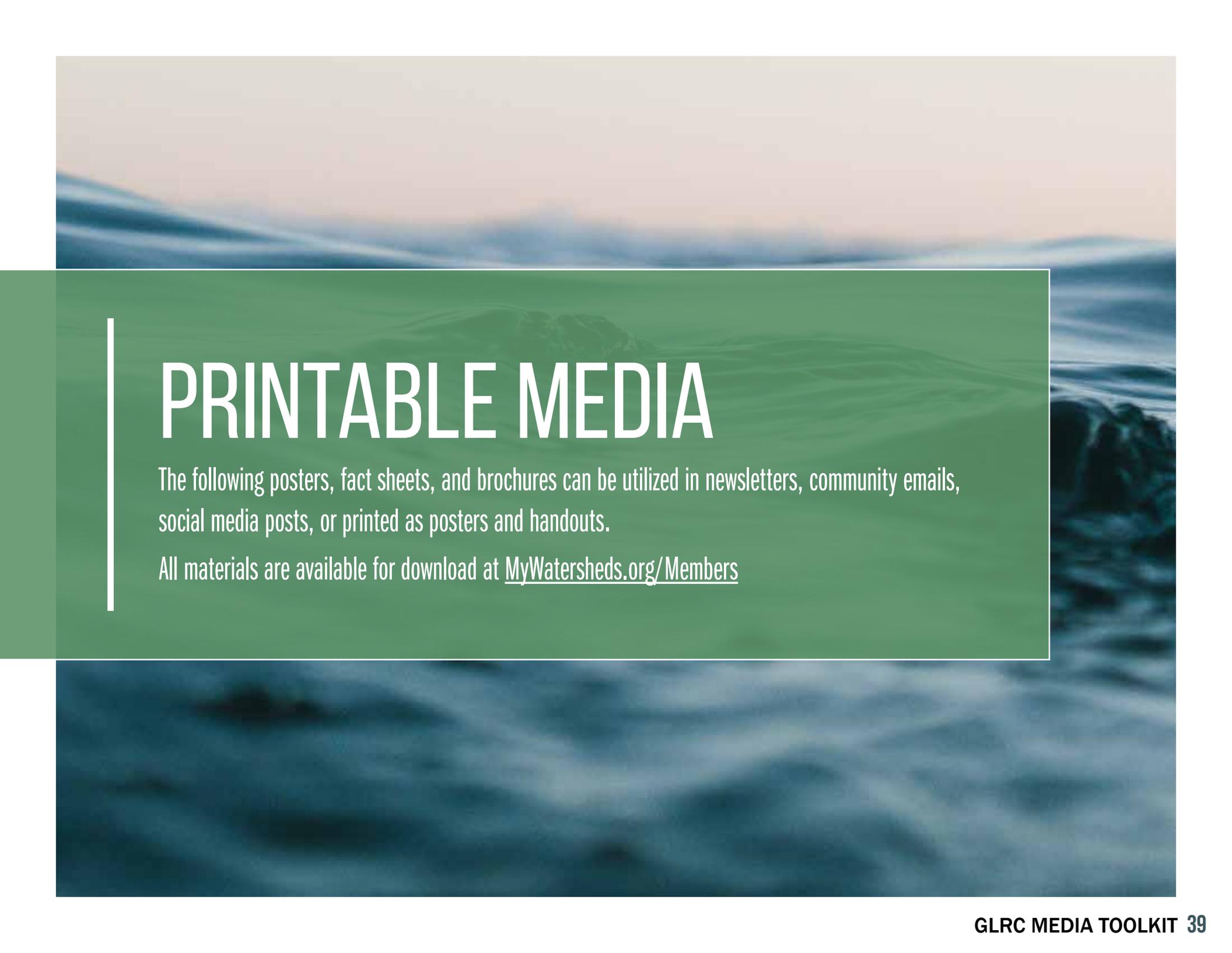
Report all illegal dumping to **Community DPW** or by calling the Michigan Pollution Emergency Alerting System (PEAS) hotline at 800-292-4706. Visit [www.MyWatersheds.org/REPORT](http://www.MyWatersheds.org/REPORT) to find your local contact for illicit discharges.

[#PollutionIsntPretty](#) [#Stormwater](#)

# REPORTING POLLUTION

Sample Photos





# PRINTABLE MEDIA

The following posters, fact sheets, and brochures can be utilized in newsletters, community emails, social media posts, or printed as posters and handouts.

All materials are available for download at [MyWatersheds.org/Members](https://www.mylakecountyparks.com/MyWatersheds.org/Members)

# FOR THE PUBLIC

## DID YOU KNOW?

A sugar maple with a 20-inch diameter will intercept over 2,280 gallons of stormwater runoff this year.

Trees intercept and store rainfall in their canopy and release water into the atmosphere through evapotranspiration.

They reduce soil erosion by slowing down rainfall before it hits the ground.

They increase infiltration and storage of precipitation through their root systems.



To calculate the benefits of your trees, visit [treebenefits.com/calculator](http://treebenefits.com/calculator).

# DON'T DRIP AND DRIVE

There's no pot of gold at the end of this rainbow.



# SPRING STORMWATER TIPS

## TO PROTECT OUR WATERSHED



### CLEAN

Uncover and clean catch basins, drains, gutters, and downspouts to help avoid flooding.

### WASH WISELY

When you wash your car in the driveway or road, the soap, wax, oil and grease washes into stormdrains. It's best to use commercial facility that captures and reuses waste water before sending it to the sanitary sewer.



### RECYCLE

Dispose of any household chemicals left over from spring cleaning or yard work at a household hazardous waste collection event. Replace them with environmentally friendly alternatives.

### GARDEN SAFE

When discharged into waterways with runoff, lawn fertilizers can fuel algae blooms and pesticides can kill aquatic life. Limit usage or use environmentally friendly alternatives when possible.



### INSPECT

Inspect and pump septic tanks and make sure your sump pump is working properly. Install a water alarm in basement in case of flooding.

### SCOOP

Pet waste isn't just a nuisance in yards and parks, it's full of bacteria that can make people and aquatic life sick. Frequently pick up pet waste from your yard and always carry a bag to scoop on walks.



# SUMMER STORMWATER TIPS

## TO PROTECT OUR WATERSHED



### CONSERVE

Lawns only need about one inch of rain a week, so only water your yard when necessary. Make sure to avoid watering in the middle of the day (which can lead to wasteful evaporation).

### WASH

When you wash your car in the driveway or road, the soap, wax, oil and grease washes into storm drains. It's best to use a commercial facility that captures and reuses waste water before sending it to the sanitary sewer.



### PLANT

Plant deep-rooted native plants that soak up rain runoff and provide food and habitat for pollinators. Learn more at [MyWatersheds.org/Rain-Garden-101](http://MyWatersheds.org/Rain-Garden-101)

### MOW

Set your mower to keep grass at least 3 inches tall. This helps promote healthy root growth which slows the rate of runoff, absorbs more water, and suppresses weeds.



### CLEAR

Clear grass clippings and other yard waste from paved surfaces. Blow or sweep it off sidewalks, and never direct lawn mower discharge into the street.

### VOLUNTEER

Volunteer for local stream monitoring events and river clean-ups. Visit [MyWatersheds.org/Events](http://MyWatersheds.org/Events) to stay up to date on volunteer opportunities.



[www.MyWatersheds.org](http://www.MyWatersheds.org)

# FALL YARDCARE TIPS

TO PROTECT OUR STORMWATER



## REDUCE

### POLLUTION

Raking leaves prevents pollution by keeping them out of storm drains, which carry leaves directly to local lakes and rivers. These decomposing leaves contain excessive nutrients that can harm water quality, clog storm drains, and lead to flooding.



## REUSE

### FERTILIZER

Extra nutrients like nitrogen and phosphorus are great for lawn fertilizer! Instead of bagging leaves, you can mulch them into small pieces using a lawnmower and spread them across your yard.



## RECYCLE

### COMPOST

Don't want to spend time bagging leaves or spreading them across your lawn? Backyard composting of organic waste creates natural soil additives for use on lawns and gardens, and can be used as potting soil for house plants.



**GREATER LANSING  
REGIONAL COMMITTEE**  
FOR STORMWATER MANAGEMENT  
[www.mmlwater.org](http://www.mmlwater.org)

# SIX TIPS TO STAY STORMWATER SMART IN THE SNOW



## SHOVEL

Shovel snow onto vegetated areas. Grass and plants will act as a natural filter as the snow melts, reducing runoff into stormdrains that lead directly to rivers and streams.

## PLAN AHEAD

Shovel and scrape trafficked areas early and often. De-icers work best when there is only a thin layer to remove.



## USE LESS

A little bit of salt goes a long way! Apply de-icers sparingly and remove slush once the snow melts to prevent refreezing.

## RECYCLE

Save money by sweeping or vacuuming salt solids for re-use after the storm!



## STORE

Practice good housekeeping by storing de-icers under a roof or other cover to minimize polluted runoff.

## WINTERIZE

Winterize your vehicles to ensure there are no leaks. Avoid washing the car in the driveway to keep dirty water out of the storm sewer.



**GREATER LANSING  
REGIONAL COMMITTEE**  
FOR STORMWATER MANAGEMENT  
[www.mmlwater.org](http://www.mmlwater.org)

# DRAINING YOUR SWIMMING POOL?

Follow these 3 easy steps to drain your pool while protecting the environment!

## STEP 1: Dechlorinate

Stop adding chlorine and expose the pool to sunlight for at least 2 weeks.  
Continue to run the pump during this time.

OR

Purchase a dechlorination agent that meets Environmental Protection Agency standards.  
You can also use Vitamin C-based dechlorination tablets - they're safer to handle!  
No matter what you use, follow the manufacturer's instructions and test the chlorine levels before you drain the pool!



## STEP 2: Infiltrate

Find a grassy area, garden, or other natural area on your property.  
Slowly pump pool water into the designated area and allow it to soak into the ground.

OR

If you have a salt water pool, drain it in stages on your property where it can be absorbed, too much salt in one area may kill vegetation and salinize the soil.  
NEVER drain salt water into surface waters, ground waters, or storm drains.  
Be careful! Failure to pump water slowly can cause flooding.  
You should NEVER drain your pool onto a neighboring property.

## STEP 3: Storm Grate

If you don't have a natural area available, AND you do not have a salt water pool, check with your local municipality to see if pumping dechlorinated pool water into a storm drain is permitted.  
If so, allow water to drain through a grassy area to slow the rate of discharge into the storm drain.  
You can be FINED for draining pool water without removing chlorine or sediment!



**GREATER LANSING  
REGIONAL COMMITTEE**  
FOR STORM WATER MANAGEMENT  
[www.mywatersheds.org](http://www.mywatersheds.org)

Do your part. Protect our watershed.

For more information visit [mywatersheds.org](http://mywatersheds.org)



## Picking up after your pet isn't just polite, it protects the environment!



10 million tons of dog waste are produced every year in the United States alone, and just one gram can contain as many as 23 million fecal coliform bacteria. (CDC, US EPA)



Dog waste is a major contributor to stormwater pollution. Dog waste that isn't picked up is carried into rivers, streams and drains by stormwater runoff, contaminating our water resources.



All runoff in the Grand River watershed (below) eventually makes its way into the Grand River and Lake Michigan. It doesn't matter if your dog lives miles from a stream or river; its waste can impact water quality close to home and further downstream.

### The Tri-County Area has many Dog Friendly Parks!

Visit them responsibly: ★

#### Off-Leash

Soldan Dog Park  
1601 E Cavanaugh Rd, Lansing, MI

Northern Tail Dog Park  
6400 Abbot Rd, East Lansing, MI

#### On-Leash

Lake Lansing Park North  
6260 E Lake Drive, Haslett

Sleepy Hollow State Park  
7835 E Price Road, Laingsburg

Lansing River Trail  
300 N Grand Avenue, Lansing

Woldumar Nature Center  
5739 Old Lansing Road, Lansing

Burchfield Park  
881 Grovenburg, Holt, MI

Crandell Park  
3425 E Clinton Trail, Charlotte, MI

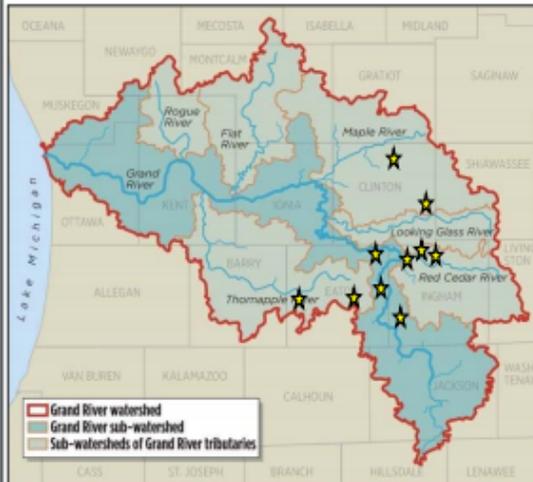
Fitzgerald Park  
133 Fitzgerald Park Dr, Grand Ledge, MI

Lincoln Brick Park  
13991 Tallman Rd, Grand Ledge, MI

Paul Henry-Thomapple Trail  
Mason Road Trail Head, Vermontville, MI

Motz County Park  
4630 N Dewitt Road, St. Johns, MI

Contact your local parks department for others!



Learn more at  
[www.MyWatersheds.org](http://www.MyWatersheds.org)



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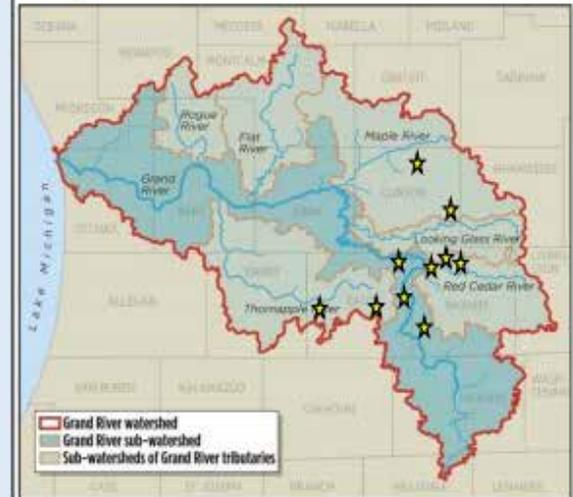
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Contact your local parks department for others!



Learn more at  
[www.MyWatersheds.org](http://www.MyWatersheds.org)

## PLEDGE to scoop for a FREE pet waste dispenser with bags!

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

Dog's name: \_\_\_\_\_

Join GLRC's email list:

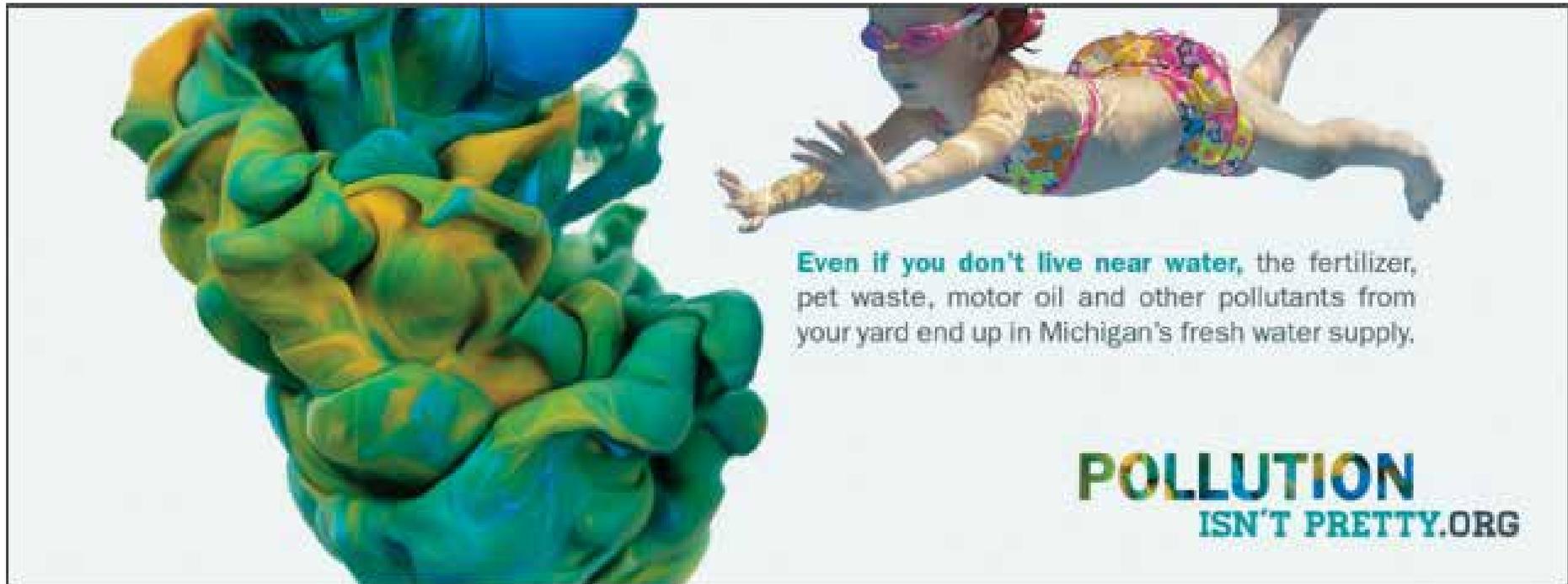
Email: \_\_\_\_\_

*I pledge to be environmentally responsible by:*

- Keeping my dog on a leash and on the trail in natural areas
- Scooping and properly disposing of pet waste

**Signature:**

\_\_\_\_\_



Even if you don't live near water, the fertilizer, pet waste, motor oil and other pollutants from your yard end up in Michigan's fresh water supply.

**POLLUTION**  
ISN'T PRETTY.ORG



**POLLUTION**  
ISN'T PRETTY.

Learn what you can do to help keep our water clean at [pollutionisntpretty.org](http://pollutionisntpretty.org)



Pet waste on the ground means E.coli in our

# WATER.

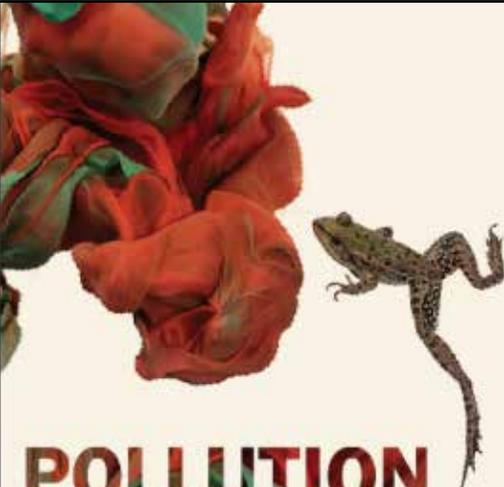
Clean up after your pup.

[pollutionisntpretty.org](http://pollutionisntpretty.org)

**GASOLINE  
WEED KILLER  
NAIL POLISH  
MOTOR OIL  
FERTILIZER**



[pollutionisntpretty.org](http://pollutionisntpretty.org)



# POLLUTION

ISN'T PRETTY.ORG



What goes on the ground ends up in our

# WATER.

Pour sparingly.

[pollutionisntpretty.org](http://pollutionisntpretty.org)



# TRI-FOLD BROCHURES

The following are cropped images of brochures available for download at [MyWatersheds.org/members](http://MyWatersheds.org/members). This side of the brochure can be used as a poster or graphic as well.

## What's the Problem with Pet Waste?

Pet waste isn't just a nuisance in yards and parks, it's full of bacteria that can make people and aquatic habitats sick. When left on the ground, precipitation and sprinkler runoff can wash pet waste (and the bacteria it carries) into storm drains. Since most storm sewers discharge into rivers, lakes, and streams without undergoing any treatment, runoff polluted with pet waste and other contaminants can impair our surface water resources.



## Help Keep Our Water Clean

There are many threats to the health of our watershed, but picking up after our pets is a simple and easy way to limit one common source of pollution.

- Frequently pick up pet waste from your yard or hire a pet waste removal company to clean it on a routine basis.
- Pick up after your pets before watering your yard or cleaning patios and driveways. Never hose pet waste into the street or gutter.
- Carry a plastic or biodegradable bag when walking pets and be sure to pick up after them. Either throw the waste in the garbage, flush it, use a pet waste compostor, or:
- Bury small quantities in your yard where it can decompose slowly. Dig a hole one foot deep, put three to four inches of waste at the bottom of the hole, and cover the waste with at least eight inches of soil. Bury the waste in several different locations in your yard, just make sure to keep it away from vegetable gardens!

### If they can't do this...



### Please do this!



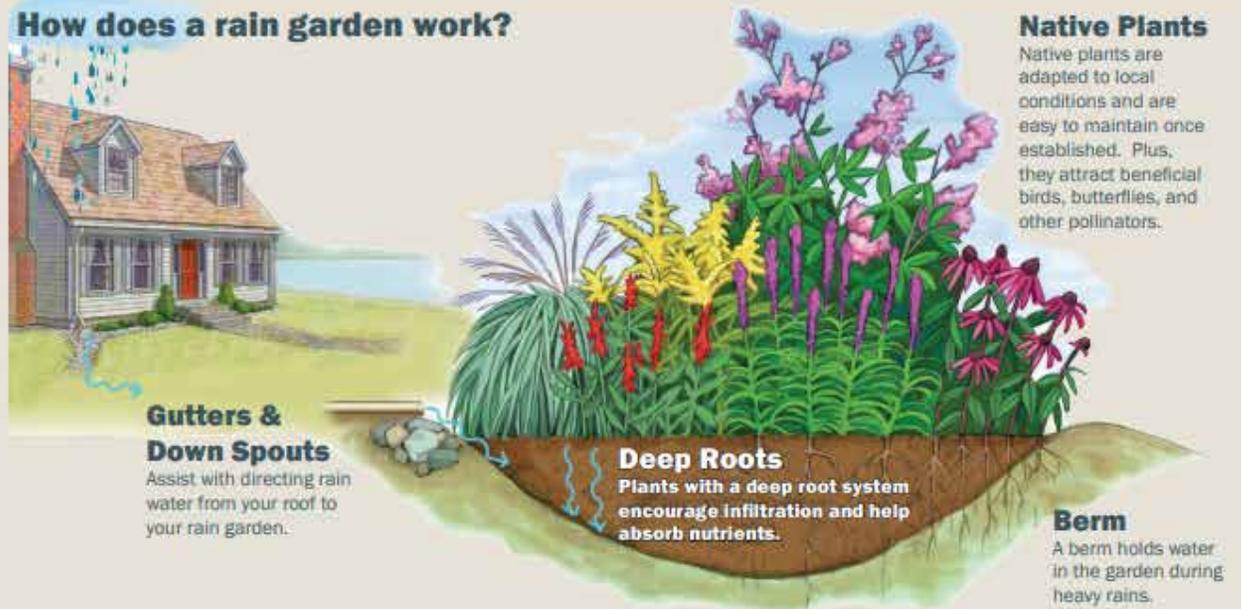
## Green Infrastructure at Home

When rainwater falls on a natural landscape, the vegetation and soils collect and absorb much of it. But when rainwater falls on impervious surfaces like a parking lot or rooftop, the water flows off into storm drains and drainage ditches. Pollutants such as pet waste, chemical fertilizers and leaking motor oil are swept up with the runoff that eventually discharges into our lakes, rivers, and streams without undergoing any treatment.

Green infrastructure mimics natural landscapes by capturing excess runoff on site, reducing runoff volumes and filtering out pollutants that would otherwise enter and impact our surface water resources. You can help protect local water quality by utilizing a rain barrel, planting a rain garden with deep rooted native plants, and incorporating other forms of green infrastructure at your home.

Visit [MyWatersheds.org](http://MyWatersheds.org) for ideas, planting guides, and other green infrastructure resources!

### How does a rain garden work?



A rain garden is a planted depression in the landscape that collects water from roof downspouts, driveway runoff or sump pump discharges and allows it to soak into the ground rather than enter the storm sewer system. Planted with native grasses and flowering perennials, rain gardens are a cost effective, low maintenance and beautiful way to reduce and filter runoff from your property. Create a butterfly habitat, prevent flooding, and make your lawn more attractive by installing a rain garden at your own home!



## What's the Problem with Fertilizer?

Fertilizer isn't a problem if it's used carefully. But if you use too much or apply it at the wrong time, it can easily wash off your lawn or garden and into storm drains. From there, it flows into our rivers, streams, wetlands, and lakes without undergoing treatment.

Just like in your garden, fertilizers make aquatic plants grow. But while fertilizer may help our lawns, excess phosphorus and nitrogen in waterways causes algae to grow faster than aquatic ecosystems can handle. Large algal blooms reduce oxygen levels, increase toxicity, and spur bacterial growth, making the water unsafe for human recreation and aquatic life. By properly applying and limiting usage of lawn fertilizer, you can help protect our surface water resources from nutrient pollution.



## Where Do All of Those Storm Drains Lead?

Did you know that most storm drains are NOT connected to treatment plants?

The purpose of storm drains is to carry rain runoff and snowmelt away from developed areas to prevent flooding. The untreated stormwater and the pollutants it carries flow directly into our creeks, rivers, and eventually the Great Lakes. By keeping pollutants off the ground, you help keep them out of our waterways.



## Help Keep Our Water Clean

- Use fertilizers and pesticides sparingly. Test the soil to determine if fertilizers are necessary, and if so, use the minimum amount needed.
- Leave grass clippings on the lawn to decompose and recycle nutrients back to the soil.
- Consider using organic fertilizers and pest control methods whenever possible.
- Use compost - your plants will need less chemical fertilizer and it puts waste to good use.
- Don't over-water your lawn and garden.
- Consider using a drip system or soaker hose instead of a sprinkler.
- Don't fertilize before a rain storm.
- Sweep up grass clippings and fertilizer from paved surfaces and properly dispose of them.
- Mulch mow, compost, or bag leaves. Keep them away from storm drains, as they can block water from flowing and increase nutrient levels in waterways when decaying.
- Install green infrastructure like rain barrels and rain gardens. Native plants do not need as much water or fertilizer.

## What's the Problem with Washing My Car?

There's no problem with washing your car – it's just how and where you do it.

When you wash your car in the driveway or road, the soap – together with the dirt, wax, oil, grease, grime, and grit – washes from your car, flows along the curb, and then deposits into nearby storm drains.

From there, the mess flows through the storm sewer system and directly into our rivers, streams, wetlands, and lakes. This impacts water quality for both humans and aquatic life.



## Where Do Storm Drains Lead?

Did you know that most storm drains are NOT connected to treatment plants?

The purpose of a storm drain is to prevent flooding by diverting stormwater runoff away from developed areas and into bodies of water. Unfortunately, this means any pollutants on the ground can be swept up with the run-off and discharged – untreated – into our lakes, rivers, and streams.



When water from car washing enters a waterway, it harms fish and impairs water quality. The phosphates from the soap cause excess algae to grow, which reduces oxygen levels as it decays. The soap's surfactants damage fish gills and kill their eggs. Even if soap isn't used, the oils, heavy metals, brake linings, and rust washed from vehicles enter storm drains and impact our shared surface water resources.

## Help Keep Our Water Clean

The best way to minimize your environmental impact is to use a commercial car wash, especially if you plan to clean the engine or the bottom of your car. The average homeowner uses 116 gallons of water to wash a car, but commercial operations use 60 percent less water for the entire process than a homeowner uses just to rinse! Most car washes also reuse wash water several times before sending it to the sanitary sewer system for treatment, ensuring pollution stays out of our waterways.

However, if you choose to wash your car at home, follow these tips:

- If allowed by your local community, wash your car on the lawn so the ground can filter the water naturally.\*
- Use soap sparingly.
- Use a hose nozzle with a trigger to save water when you don't need it.
- Pour your bucket of soapy water down the sink when you're done, NOT in the street.
- Avoid using engine and wheel cleaners or degreasers.

\*Please check local ordinances before washing or parking your vehicle on the lawn!

## What's the Problem with Motor Oil?

Most oil pollution is different than the pictures you see of oil covered beaches following a major spill or accident. In fact, poorly maintained vehicles are one of the biggest causes of oil pollution in our waterways. Leaking automotive fluid goes from car to street, street to storm drain, and from the drain to our rivers, lakes, and streams. With over 250 million cars on the road, small spills add up to big problems.

It's estimated that Americans spill 180 million gallons of used oil each year. That's 16 times the amount spilled during the Exxon Valdez disaster! By quickly fixing leaks, you can help protect both your vehicle and our water resources.

## Help Keep Our Water Clean



In the Grand River watershed, pollutants on the ground eventually make their way to Lake Michigan! Protect the Great Lakes by regularly checking for automotive leaks and fixing them promptly.



One pint of used motor oil can make a slick larger than a football field.

## Together We Can Stop Water Pollution at the Source

- Stop drips. Check for leaks regularly and fix them promptly. Keep your car tuned to reduce oil use.
- Use ground cloths or drip pans beneath your vehicle if you have leaks or are doing engine work; clean up spills immediately; collect all used oil in containers with tight fitting lids; and do not mix different engine fluids.
- Never dispose of oil or other fluids down the storm drain, on the ground, or into a ditch.
- Recycle used motor oil. Many auto parts stores and gas stations will accept used oil.
- Buy recycled (re-refined) motor oil to use in your car.

To find out more about where you can take used oil for recycling in your community, visit [www.MyWatersheds.org](http://www.MyWatersheds.org)!

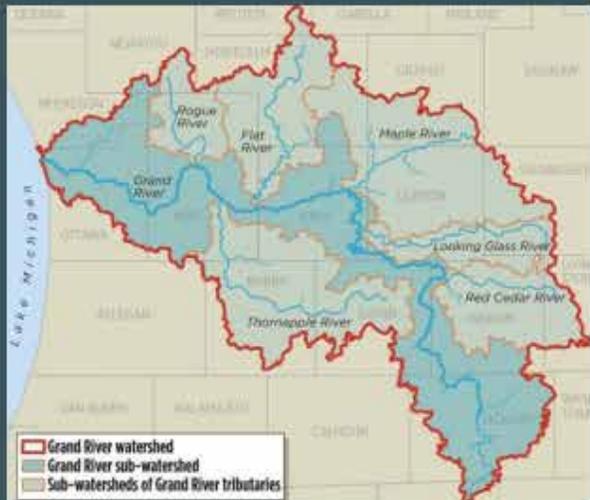
**Dumping automotive fluids into storm drains has the same result as dumping them directly into our shared surface water resources.**



Source: Arkansas Watershed Advisory Group

A watershed is an area of land that drains to a common point. That common point may be a lake, the outlet of a river, or any point within a river system.

In the Grand River watershed, all land drains to Lake Michigan and eventually the Atlantic Ocean! This means that pollution on the ground at home can impact water quality much further "downstream."



## Upper Grand River Watershed

### Looking Glass River Watershed

(urbanized area only)

Population (2016): 54,792  
 Political Jurisdictions: 14  
 Land Area: 80,290 acres  
 Wetlands: 16,070 acres  
 Miles of Rivers & Streams: 183



### Grand River Watershed

(urbanized area only)

Population (2016): 118,256  
 Political Jurisdictions: 13  
 Land Area: 93,622 acres  
 Wetlands: 8,586 acres  
 Miles of Rivers & Streams: 325



### Red Cedar River Watershed

(urbanized area only)

Population (2016): 170,304  
 Political Jurisdictions: 15  
 Land Area: 105,629 acres  
 Wetlands: 13,967 acres  
 Miles of Rivers & Streams: 225



## Top 10 Things You Can Do To Protect Our Watersheds

- Always conserve and reuse water wisely.
- Soil test before applying lawn fertilizers - you may not need them at all!
- Landscape with native vegetation and wildflowers that do not require fertilizers and excess watering. They will help filter pollutants from runoff water.
- Install a rain barrel to capture, reuse, and control stormwater runoff.
- Dispose of pet waste properly in the trash or toilet (not in onsite septic systems).
- Wash your car on the lawn instead of pavement (if allowed in your community). Suds and grease can flow from driveways to storm drains but can be filtered by soils if washed on lawns.
- Maintain all vehicles, eliminating leaks and spills.
- Recycle and dispose of household chemicals properly (motor oil, household cleaners, paint, etc).
- Inspect and maintain onsite septic systems.
- Join a watershed organization!

# FOR THE BUSINESS COMMUNITY



## CLEAN CONSTRUCTION FOR SOIL EROSION PREVENTION

As a developer, you play a big role in keeping our waterways clean. Follow these tips to prevent erosion at your site and reduce stormwater pollution.

**DO**



**DON'T**



### WHAT CAN YOU DO?

- Contact the local municipality to determine if you need a permit.
- Pick a combination of erosion and sediment controls that work for your site. This includes practices that protect natural landscape features, like streams and wetlands, and stabilize soil.
- Use best practices that protect and maintain silt fences, storm drain inlets, and construction entrances.

### WHY IS THIS NECESSARY?

- Water that falls on your construction site either soaks into the ground or runs off into storm drains. Any pollution and sediment on the ground can be swept up with this stormwater as well.
- Water and pollution that goes into storm drains eventually ends up in lakes, rivers, and streams.
- Once these pollutants reach waterways, they can harm aquatic habitats and make them unsafe for outdoor fun.
- Most importantly, allowing polluted runoff to leave your site and enter a storm drain or waterway is against the law.

Business owners can do their part to keep Michigan's waterways clean. Find more tips like these at [www.MyWatersheds.org](http://www.MyWatersheds.org).



## STOP THE SPILLS PREVENT POLLUTION

As an industrial facility, you are responsible for all pollutants that leave your property and play a big role in keeping our waterways clean. Follow these tips to prevent spills at your facility and reduce stormwater pollution.

**DO**



**DON'T**



- Inspect facilities yearly and perform maintenance activities as needed.
- Ensure floor drains and other drains are properly connected to sanitary sewer systems.
- Keep up-to-date maintenance and inspection records on-site.
- Train employees to respond to spills.
- Keep spill response kits in accessible locations throughout the facility, especially near areas where spills may occur.
- Consider purchasing drain cover seals to isolate areas to prevent spilled materials from entering the drainage system and local waterways.

- Don't leave chemicals and hazardous materials in open or loosely sealed containers. Store them in closed and labeled containers.
- Don't store chemicals and hazardous materials outside. Containers should be kept inside secure buildings and on impervious surfaces.
- Don't forget to wear appropriate protective equipment, such as gloves, goggles, and hazmat boots, when cleaning up a spill.
- Don't allow spills to enter storm drain systems. Report & monitor any spills to storm sewer or waterways to appropriate state and local authorities.

### WHY IS THIS NECESSARY?

Rain that falls on and around your site can pick up trash, dirt, and chemical residue as it drains away. Much of this water, or stormwater, flows into storm drains before discharging directly into our lakes, rivers, and streams. It's one of the top causes of water pollution in the country. By keeping pollution off the ground, you prevent it from entering and impacting our waterways.

Business owners can do their part to keep Michigan's waterways clean. Find more tips like these at [www.MyWatersheds.org](http://www.MyWatersheds.org).



## STORMWATER SAFE CONSTRUCTION SITES

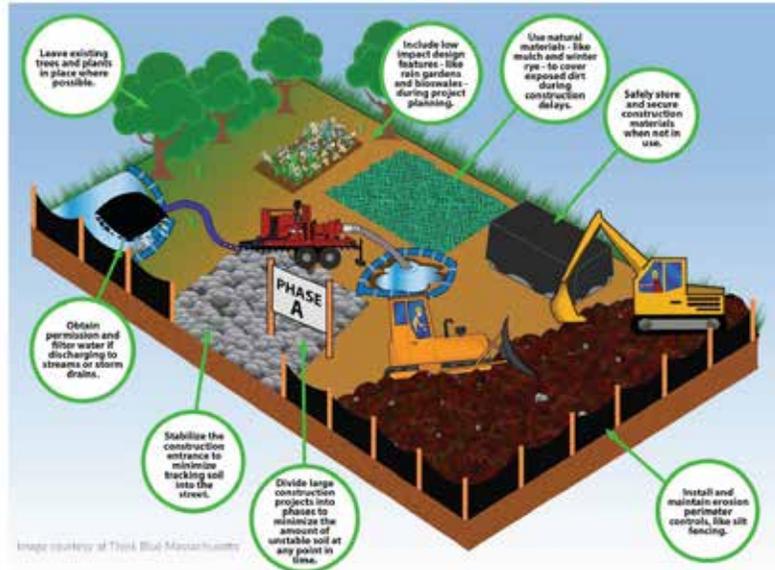


Image courtesy of Think Blue Massachusetts

### WHY IS THIS NECESSARY?

The storm drains in our streets and parking lots discharge directly into rivers and streams without undergoing treatment. That means any pollutants on the ground like loose sediment and debris can be swept up with rain and snow melt as it flows into our waterways. Well maintained and organized construction sites can help keep our waterways safe and clean. Check with your local municipality to make sure you have the proper permits before beginning construction.

Business owners can do their part to keep Michigan's waterways clean. Find more tips like these at [www.MyWatersheds.org](http://www.MyWatersheds.org).



## PROTECT OUR WATERS STOP THE SALT ASSAULT

De-icing salt dissolves in melted snow and ice, flows into storm drains, and is discharged into our rivers and streams (not a treatment plant). This saline water threatens drinking water supplies and aquatic ecosystems. By adopting these practices, business owners can reduce their contribution to salt pollution.

DO



DON'T



Images courtesy of Think Blue Massachusetts

- Keep storm drains, catch basins, and stormwater structures clear of snow, litter, grass, and leaves. They can clog these structures.
- Use only as much salt as needed to match site conditions.
- Shovel or plow thoroughly prior to salting.
- Purchase eco-friendly salt alternatives.
- Use a salt brine rather than rock salt.
- Don't leave salt and ice melt uncovered or open to rain and snow.
- Avoid spreading clumps
- Don't dump grease or oil into a storm drain, catch basin, or other stormwater structure.

### WHY IS THIS NECESSARY?

Rain that falls on and around your site can pick up trash, dirt, and chemical residue as it drains away. Much of this water, or stormwater, flows into storm drains before discharging directly into our lakes, rivers, and streams. It's one of the top causes of water pollution in the country. By keeping pollution off the ground, you prevent it from entering and impacting our waterways.

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## IT'S TIME TO CURB PARKING LOT POLLUTION

As a business owner, you play an important role in keeping our waterways clean and healthy! Follow these tips to reduce polluted runoff, prevent flooding, and make a good impression with your customers.

### DO



### DON'T



- Maintain storm drains and stormwater structures regularly and clean and repair as necessary
- Sweep parking lots regularly to collect trash and debris.
- Provide covered trash cans, recycling bins, and cigarette butt receptacles in highly visible areas.
- Consider a dumpster enclosure, pad or fence around dumpsters.
- Don't wash vehicles in your parking lot. Use a car wash or vehicle wash bays that direct dirty wash water to the sewer, not storm drains.
- Don't leave dumpsters open.
- Don't let trash cans overflow.

#### WHY IS THIS NECESSARY?

Rain that falls on and around your site can pick up trash, dirt, and chemical residue as it drains away. Much of this water, or stormwater, flows into storm drains before discharging directly into our lakes, rivers, and streams. It's one of the top causes of water pollution in the country. By keeping pollution off the ground, you prevent it from entering and impacting our waterways.

Business owners can do their part to keep Michigan's waterways clean.  
Find more tips like these at [www.MyWatersheds.org](http://www.MyWatersheds.org)



## STORMWATER SMART CHEMICAL STORAGE

As an industrial facility, you are responsible for all pollutants that leave your property and play a big role in keeping our waterways clean. Follow these tips to prevent spills at your facility and reduce stormwater pollution.

### DO



### DON'T



- Maintain accurate records and Material Safety Data Sheet (MSDS) information for stored materials at your site.
- Store chemicals and hazardous materials according to manufacturer's instructions. Storage areas should be dry, cool, well-ventilated, and insulated.
- Check storage areas often for leaks and spills. Be sure storage areas are equipped with easily accessible spill cleanup kits.
- Don't leave materials out in the open. Store them indoors in covered, sealed containers, such as a locked cabinet.
- Don't dump excess, outdated, or waste materials into storm drains or other stormwater structures. Dispose of them according to the manufacturer's instructions and local regulations.
- Don't store materials incorrectly. Waste materials should be kept in secure, labeled containers.

#### WHY IS THIS NECESSARY?

Rain that falls on and around your site can pick up trash, dirt, and chemical residue as it drains away. Much of this water, or stormwater, flows into storm drains before discharging directly into our lakes, rivers, and streams. It's one of the top causes of water pollution in the country. By keeping pollution off the ground, you prevent it from entering and impacting our waterways.

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Find more tips like these at [www.MyWatersheds.org](http://www.MyWatersheds.org)



## MANAGING LAWNS FOR WATER QUALITY



Image courtesy of Think Blue Massachusetts

### WHY IS THIS NECESSARY?

Michigan law restricts the use of phosphorus fertilizers on residential and commercial lawns. Look for fertilizers with zero phosphorus. The product will list three numbers that indicate the amount of nitrogen, available phosphate, and soluble potash. The middle number should be zero, meaning the product is phosphate free.

Contact Michigan State University at [www.homesoiltest.msu.edu](http://www.homesoiltest.msu.edu) to perform a routine soil test so you can better understand your fertilizer needs.

Business owners can do their part to keep Michigan's waterways clean. Find more tips like these at [www.MjWaterheds.org](http://www.MjWaterheds.org)



## PROTECT WATER QUALITY PRACTICE GOOD HOUSEKEEPING

Business owners play an important role in keeping our waterways clean and healthy! Follow these tips to reduce polluted runoff, prevent flooding, and make a good impression with your customers.

### DO



### DON'T



Images courtesy of Think Blue Massachusetts

### WHAT CAN YOU DO?

- Inspect your vehicles and equipment for leaks regularly.
- Use drip pans to catch fluids and keep a cleanup kit nearby in case a spill occurs.
- Perform vehicle maintenance inside.
- Cleanup spills immediately.
- Make sure dumpsters are covered and leak free.

### WHY IS THIS NECESSARY?

- Gasoline, oil, and grease from vehicles and equipment can wash into storm drains.
- Water that enters storm drains eventually ends up in our lakes, rivers, and streams.
- Once pollutants reach these waterways, they can harm fish and other wildlife.
- This pollution can even make our water unsafe to drink.

Business owners can do their part to keep Michigan's waterways clean. Find more tips like these at [www.MjWaterheds.org](http://www.MjWaterheds.org)





## PROTECT WATER QUALITY PUT WASTE IN ITS PLACE

As a business owner, you play an important role in keeping our waterways clean and healthy! Follow these tips to reduce polluted runoff, prevent flooding, and make a good impression with your customers:

### DO



Images courtesy of Think Blue Massachusetts

- Inspect your dumpster daily.
- Make sure the lid is kept closed and locked.
- Check for leaks and replace, if needed.
- Schedule regular trash pick-ups to prevent the dumpster from becoming too full.

### DON'T



- Don't place leaking containers in the dumpster when emptying trash.
- Though it's sure to get smelly, never hose down the inside of your dumpster.

### WHY IS THIS NECESSARY?

Rain that falls on and around your site can pick up trash, dirt, and chemical residue as it drains away. Much of this water, or stormwater, ends flows into storm drains before discharging directly into our lakes, rivers, and streams. It's one of the top causes of water pollution in the country. By keeping pollution off the ground, you prevent it from entering and impacting our waterways.

Business owners can do their part to keep Michigan's waterways clean.  
Find more tips like these at [www.MiWatersheds.org](http://www.MiWatersheds.org).



## PUT THE BRAKES ON GAS STATION POLLUTION

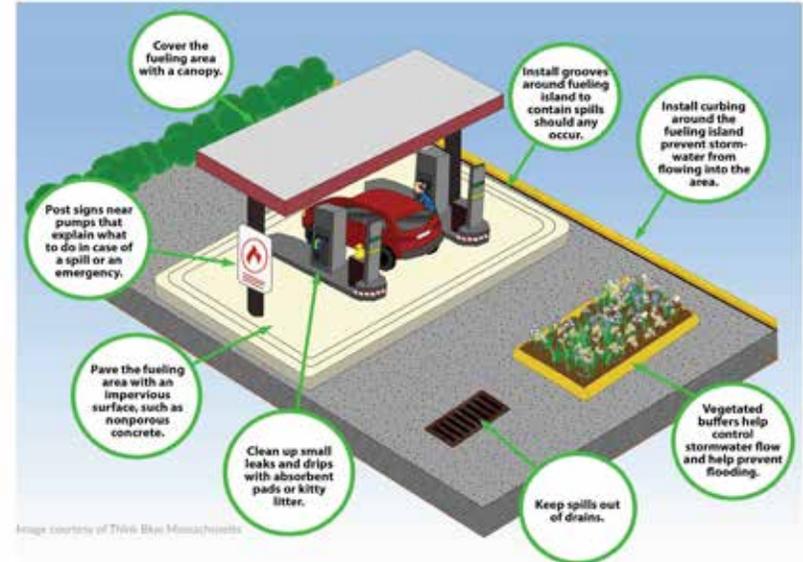


Image courtesy of Think Blue Massachusetts

### WHY IS THIS NECESSARY?

The storm drains in our streets and parking lots discharge directly into rivers and streams without undergoing treatment. That means any pollutants on the ground like spilled automotive fluids, litter, and dirt can be swept up with rain and snow melt as it enters our waterways. Designing and maintaining gas stations responsibly can help keep our waterways safe and clean.

Business owners can do their part to keep Michigan's waterways clean.  
Find more tips like these at [www.MiWatersheds.org](http://www.MiWatersheds.org).



# ARTICLES

The GLRC has produced educational articles covering a range of water quality and environmental topics, and many communities have committed to sharing this information to residents. Each article is available as a PDF that can be printed as-is or inserted into municipal newsletters and emails, and as a Word document that can be customized or reformatted to fit within other designs.

All files are available at [MyWatersheds.org/members](https://www.mywatersheds.org/members)

# ADOPT A CATCH BASIN



Looking for an easy way to protect our water resources? Adopt a catch basin!

Catch basins are storm sewer inlets that drain excess rain and snow melt away from pavement and into a system of underground piping, culverts, and/or drainage ditches. Contrary to popular belief, pet wastes, oil and other materials dumped into storm sewer grates do not go to the wastewater treatment plant, but instead flow directly into streams and lakes. For example, dumping oil into a storm sewer grate has immense consequences; when it reaches the water, just one pint of oil can create a slick as large as a football field.

Luckily, catch basins serve as the first line of defense against stormwater pollution. Their grates are designed to prevent some debris from entering the system and clogging pipes or discharging into waterbodies. However, the grates only capture larger pieces of debris and can become clogged with yard waste and litter. That's why it's important to maintain catch basins to prevent localized flooding and minimize surface water pollution. While municipalities frequently street sweep and inspect catch basins, citizens can help!



## How Can I Adopt My Own Catch Basin?

**Remove Debris From Grates:** The grates of catch basins can become clogged with litter or leaves, especially in the spring and fall. Regularly inspect the grate and remove debris. Encourage neighbors to adopt the catch basins in front of their homes and keep them free of debris.

**Ensure Regular Cleaning:** Catch basins should be cleaned out before the storage area is half full. Once this level is reached, debris begins to wash into sewer pipes. Cleaning these storage areas should be performed by your local jurisdiction or a private contractor, but you can be your community's "eyes and ears" to alert them about problem areas. Contact your local public works department if you are concerned about the catch basins in your neighborhood.

**Label Your Storm Drains:** Stenciled signs or applied decals that read "Dump No Waste - Drains to River" are a good reminder that nothing but water should enter a storm drain.

**Teach Your Neighbors:** When people realize storm drains discharge to waterways rather than a treatment plant, they are more likely to avoid polluting them. Make sure your neighbors understand how these systems work.



# RESPONSIBLE CAR WASHING



There's no problem with washing your car, it just matters how and where you do it. Storm drains in our streets and roadside ditches lead directly to our lakes and streams, so when you wash your car in the driveway or on the road, the soap — together with dirt, wax, oil, grease, grime, and grit — runs from your car into nearby storm drains. From there, the mix of soap and dirty water flows through the storm sewer system and directly into our rivers, streams, wetlands, and lakes. This impacts water quality for both humans and aquatic life.



When water from car washing enters a waterway, it harms fish and impairs water quality. The phosphates from the soap cause excess algae to grow, which reduces oxygen levels as it decays. The soap's surfactants damage fish gills and kill their eggs. Even if soap isn't used, the oils, heavy metals, brake linings, and rust washed from vehicles enter storm drains and impact our shared surface water resources.

## How Can You Wash Your Car and Help Keep Our Environment Clean?

The best way to minimize your environmental impact is to use a commercial car wash, especially if you plan to clean the engine or the bottom of your car. The average homeowner uses 116 gallons of water to wash a car, but commercial operations use 60 percent less water for the entire process than a homeowner uses just to rinse! Most car washes also reuse wash water several times before sending it to the sanitary sewer system for treatment, ensuring pollution stays out of our waterways.

Looking for other options? If allowed by your local community, wash your car on the lawn so the ground can filter the water naturally. The lawn will gladly soak up the water, preventing it from entering storm drains or roadside ditches. If you can't use the lawn, try to direct dirty water toward the lawn and away from nearby storm drains. Pour your bucket of soapy water down the sink when you're done, NOT into the street. Again, please be sure to check local ordinances before washing or parking your vehicle on the lawn!



You should also take care to minimize the amount of soap you use, or wash your car with plain water. Use a hose nozzle with a trigger to save water when you don't need it and avoid using engine cleaners or degreasers.

In recent years, sources of pollution like industrial wastes from factories have been greatly reduced. Now more than 60 percent of water pollution comes from smaller sources like residential car washing; cars leaking oil; fertilizers from farms, lawns, and gardens; pet waste; and failing septic tanks. Even these small-scale sources add up to a big pollution problem, but everyone can make minor changes to help clean up our water and be part of the pollution solution!

# SANITARY VS. STORM SEWER



Did you know that communities typically have two sewer systems? Most have both a storm sewer and a sanitary sewer.

Storm sewers redirect runoff from rain or snow events into a system of catch basins and pipes, while sanitary sewers collect wastewater from toilets and taps and send it to a treatment plant to be cleaned.

Though less common, some communities have combined systems. These Combined Sewer Overflows, or CSOs, are older systems but still remain in use in some areas. This "one-pipe system" combines both surface runoff (stormwater) with wastewater (sewage) and leads to a treatment plant for processing. However, these systems were designed to overflow when a heavy rain or snow melt event backlogged the system. When this occurs, the mixture of stormwater and raw sewage flows directly into a river, stream or lake.

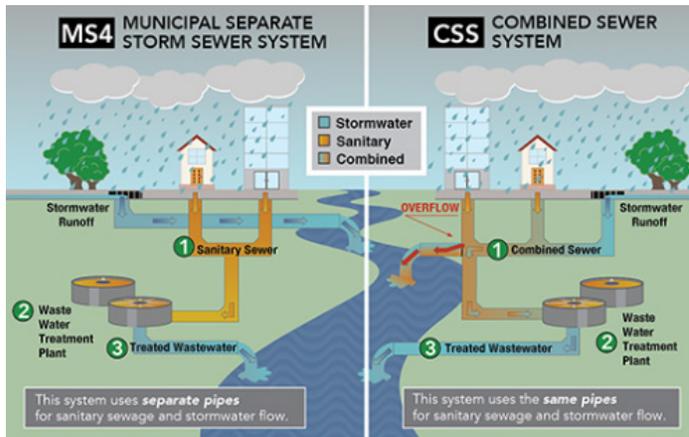
Untreated sewage entering our surface water had obvious impacts to the water quality and ecosystems that depend on these habitats.

To combat this, modern storm sewers have moved away from the "one pipe system" of the past and separate wastewater from storm runoff. Most of the storm sewers in the Greater Lansing area are what we call Municipal Separate Storm Sewer Systems (MS4s). Here, the sanitary sewer still directs sewage to the treatment facility, but stormwater is diverted directly to water bodies.

The MS4 system reduces the risk of large quantities of sewage entering the surface water, but since stormwater doesn't go to the treatment plant, it has its own risks and must be "treated" in other ways. MS4s rely on catch basins and built infrastructure to filter out large pieces of litter, sediment, and oils, but these systems only work if they are cleaned, maintained, and understood by the public. If you see someone pouring anything down a storm drain, report it! Also report any clogged or dirty catch basins to your municipality.

Here are some things you can do to help maintain our sewer systems and keep our environment clean:

- Do not pour anything into storm sewer drains.
- Clean up spills and don't wash them into a drain.
- Keep storm sewer drains clear of leaves, grass clippings, sticks and litter.
- Don't pour paints, solvents, cleaners, etc. into any drain – take it to your local county household hazardous waste collection.
- Repair any leaks and drips from your vehicle.
- Minimize the use of herbicides and pesticides.
- Collect and recycle motor oil.



# YOU'RE NOT JUST FERTILIZING YOUR LAWN



Lawn fertilizer isn't a problem if it's used carefully, but over-fertilizing can contribute to stormwater pollution in the Grand River watershed. If you use too much fertilizer or apply it at the wrong time, it can wash off your lawn or garden, enter the storm sewer system, and flow untreated into our rivers, lakes, and streams.

Just like in your garden, fertilizers make aquatic plants grow. But while fertilizer may help our lawns, excess phosphorus and nitrogen in waterways causes algae to grow faster than aquatic ecosystems can handle. Large algal blooms reduce oxygen levels, increase toxicity, and spur bacterial growth, making the water unsafe for human recreation and aquatic life. By properly applying and limiting usage of lawn fertilizer, you can help protect our surface water resources from nutrient pollution.

- **Don't Guess...Test!** First, find out if you even need fertilizer! Contact your Michigan State University Extension office to get a soil test. You'll save money and reduce the chance of over-applying.
- **Sweep It:** Sweep excess fertilizer and grass clippings from pavement back onto your lawn so that they don't wash into storm drains.
- **Go Slow and No:** Use slow-release nitrogen, no-phosphorus fertilizers that provide a slow, steady source of nutrients.
- **Hire Smart:** Select a lawn care service that follows the practices noted above.
- **Mow High:** Keep your lawn at three inches in height. Taller grass strengthens roots and shades out weeds. Also, remember that the nutrients from grass clippings left on your lawn act as a great fertilizer.
- **Don't Over Water:** Consider using a drip system or soaker hose instead of a sprinkler.
- **Go Natural:** Use commercially available compost or make your own using garden waste. Mixing compost with your soil means your plants will need less chemical fertilizer and puts your waste to good use. Also consider using organic fertilizers and pest control methods whenever possible.
- **Make Fertilizer-Free Zones:** Keep fertilizer at least 20 feet away from the edge of any lakes, streams, or storm drains.



In recent years, sources of pollution like industrial wastes from factories have been greatly reduced. Now more than 60 percent of water pollution comes from things like excess fertilizer applications, cars leaking oil, pet waste and failing septic tanks. All these sources add up to a big pollution problem. But each of us can do small things to help clean up our water too, and that adds up to a pollution solution!

# ILLICIT DISCHARGES



Did you know that most storm drains lead directly to our waterways without undergoing treatment at a wastewater treatment plant? This means even if you live miles from the nearest river or lake, your actions at home can still impact our shared water resources. Soaps and suds from washing our cars in the driveway, bacteria from pet waste, and excess lawn chemicals, can be swept up with runoff and pollute aquatic habitats. These examples - and anything else that drains to a storm drain or directly to a waterway that is NOT stormwater - is considered an illicit discharge.

Illicit discharges can also be the result of improper, or illicit, connections of sanitary sewers into the storm sewer system, sending domestic household waste, wash water, and other waste water directly into our waterways. Other illicit charges come from intentional dumping, be it pouring used motor oil into drains, or a restaurant dumping dirty mop water on the pavement outside the building, where it flows to a stormwater drain and sends detergents and other pollutants into waterways. Other discharges are from accidental sources, like leaking vehicles and fuel tanks. Whatever the source, illicit discharges are illegal and harmful, but preventable!

## What Can You Do About Illicit Discharges?

You can help keep our lakes, rivers, streams, wetlands, and groundwater clean by applying the following tips:

**Only rain in the drain:** Never dump motor oil, chemicals, pet waste, dirty or soapy water, or anything else down the storm drain or in a drainage ditch. All of these materials pollute our lakes and rivers!

**Sweep it:** Do you have extra fertilizer, grass clippings, or dirt on your driveway or sidewalk? Sweep it back onto your lawn. Hosing your driveway sends these pollutants into storm drains that lead directly to our lakes and rivers.

**Pick it up:** If you see garbage near a storm drain, pick it up. Throw litter in its proper place.

**Clean it:** Clean up after your pet to reduce pet waste traveling to local waterways.

**Dispose of it properly:** Take household hazardous waste (paint, motor oil, etc.) to a local collection event.

**Report it:** If you see someone dumping something into a storm drain, or see a direct connection to the river that may be pollution you are encouraged to report it. You can do this by contacting your local public works department. In addition, you can contact the Michigan Pollution Emergency Alerting System (PEAS) at (800) 292-4706. PEAS is a 24 hour hotline managed by the Michigan Department of Environmental Quality and is used to report environmental



# ON-SITE SEPTIC SYSTEMS



Also known as onsite/decentralized wastewater treatment systems, septic systems treat sewage from homes and businesses that are not connected to a municipal sewer and treatment plant. They work simply: sewage and grey water flow out of the building into a septic tank that holds and settles solids in the wastewater while liquids continue to flow into a drainage field where they soak into the ground.

However, having your own onsite sewage solution does come with some added responsibilities and risks for homeowners. If the tank is full or broken, if the drainfield has failed and saturated with water, or harmful chemicals, wipes, and greases are flushed down the drain, the septic system can stop working correctly. Failed systems pose a risk to human and environmental health, as untreated sewage can pool in yards and enter our waterways and groundwater sources. Repairs can also be costly.

Learn how to prevent and spot the signs of failure here.

## Signs of Failure

- Pooling water or muddy soil around your septic system
- Water backing up into your basement
- Your toilet or sink backing up when you flush or do laundry
- Strips of bright green grass over the drain field

## What Can You Do?

- Don't use excess water. Overloading the system is biggest reason for system malfunction. Space out large dishwashing and laundry loads.
- Don't add additives - they only harm your system.
- Don't damage it. The septic system is buried just beneath the ground surface and can be damaged if you pave over it, drive over it, or park on top of it.
- Don't direct excess rain water to the area where the septic system is buried. Water from the septic tank travels through the laterals to drain through the soil. If the soil is already wet, the water may back up in your system or pool on the ground. Make sure downspouts and yard drainage are directed to other areas of your yard.
- Do install risers and inspection ports. Because the system is buried, it is difficult to inspect to check for problems leading to a malfunction. Small inspection ports are easy to install and can allow inspectors to easily check your system.
- Do get a yearly inspection. An annual inspection of the lateral lines will reveal possible problems.
- Do check septic tanks for damage every three years and pump out solid material when needed.

## Save Money

If your septic system isn't maintained, you will need to replace it, costing you thousands of dollars. If you sell your home, your septic system must be in good working order.

## Protect the Environment

Proper maintenance of your septic system prevents the spread of infection and disease and protects water resources. Inadequately treated sewage from failed septic systems can cause groundwater contamination, posing a significant threat to drinking water. Improperly treated sewage that contaminates nearby surface waters also increases the chance of swimmers contracting a variety of infectious diseases.

## Who Do You Call?

Check online for professional septic pumpers, installers, inspectors, and tank manufacturers. They will be able to answer simple questions about your septic system.



Please note: Septic systems vary. Diagram is not to scale.

# PET WASTE AND THE ENVIRONMENT



Pet waste isn't just a nuisance in yards and parks: it's full of bacteria that can make people and aquatic habitats sick. When left on the ground, precipitation and sprinkler runoff can wash pet waste (and the bacteria it carries) into storm drains. Since most storm sewers discharge into rivers, lakes, and streams without undergoing any treatment, runoff polluted with pet waste and other contaminants can impair our surface water resources.

With 80% of people (and therefore most of America's 90 million dogs) living in developed areas where stormwater isn't treated before discharging into our rivers, the impact of pet waste-contaminated runoff is amplified. It doesn't stay where it's left, as its bacteria can be swept up and concentrated downstream. Considering that dogs are relative newcomers to the ecosystem, the fact that they produce 10 million tons of waste each year in the U.S alone indicates a significant environmental impact.



When beaches are closed in the summer, it's often due to high levels of bacteria, especially E. coli. While failing septic tanks, wildlife, and poorly managed livestock can also introduce bacteria into the watershed, pet waste is a major contributor. In fact, due to the high protein, highly processed diets of modern dogs, their waste can contain more bacteria and pathogens by weight than that of cows. Just one gram of dog waste can contain as many as 23 million fecal coliform bacteria! It can also contain salmonella, giardia, and other bacteria and parasites that spread disease and impair water quality.

## Help Keep Our Waterways Healthy

There are many threats to the health of our watershed, but picking up after our pets is a simple and easy way to limit one source of pollution.

**Bring A Bag:** Carry a bag (preferably biodegradable) when walking pets and be sure to pick up after them. Clean up pet waste in your yard frequently.

**Clean It Up:** Pick up pet waste from your yard or hire a pet waste removal company to clean it on a routine basis. Pick it up before rain, watering your yard, or cleaning patios and driveways. Never hose pet waste into the street or gutter.

**Dispose of the Waste:** Throw it away with the household trash, flush it, or bury small quantities in your yard where it can decompose slowly. For the latter, dig a hole one foot deep. Put three to four inches of waste at the bottom of the hole. Cover the waste with at least eight inches of soil. You can bury the waste in several different locations in your yard, but keep it away from vegetable gardens!



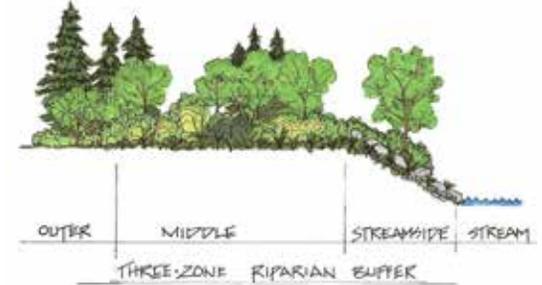
In recent years, sources of pollution like industrial wastes from factories have been greatly reduced. Now more than 60 percent of water pollution comes from things like residential car washing, cars leaking oil, fertilizers from farms, lawns and gardens, pet waste, and failing septic tanks. All these sources add up to a big pollution problem, but each of us can do small things to help clean up our water, and that adds up to a pollution solution!

# PROTECTING THE WATER'S EDGE



The health of our waterways is determined by how we treat the land that drains into them. All residents, especially those who own and manage lake- or river-front land, can take steps to impact the river in a way that is beneficial to it and the wildlife that depends on it.

A riparian zone is the water's edge, or where the land meets a waterway. Riparian zones act as a buffer for rivers and other waters by filtering out polluted runoff from agricultural, urban, residential or other land uses. Riparian buffers, whether they're planted with deep-rooted native plants or occur naturally with existing trees and woody plants, can absorb sediments, chemical nutrients, and other substances contained in polluted runoff before they enter our rivers and streams. They also slow down the velocity of runoff and infiltrate runoff to recharge groundwater. A healthy, functioning riparian area and associated uplands can dramatically increase the health of fish and wildlife habitat, aid in erosion and foliage control, late season stream flow, and water quality.



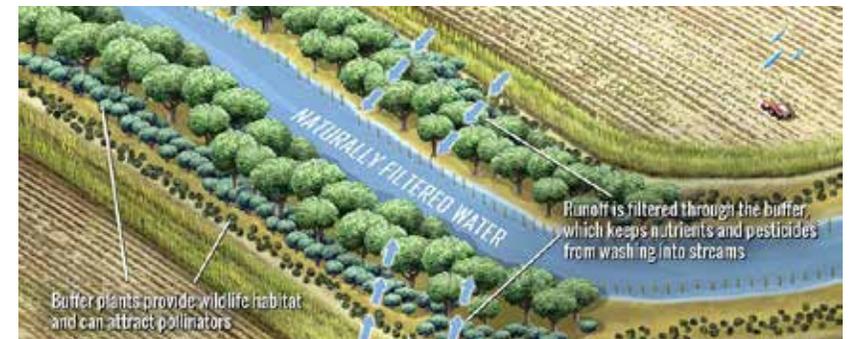
## What Can YOU Do to Protect the Water's Edge?

By creating a healthy riparian zone on your property, you can help improve water quality.

**Reduce Turf Grass:** Shoreline and stream bank property planted with turf grass is really an unnatural landscape. While turf grasses slow runoff, their root systems are too shallow to stabilize stream banks or shorelines.

**Don't Mow to the Water's Edge:** Lawns mowed to the water's edge will do little to control shoreline erosion. In fact, removing native vegetation and replacing it with turf grass usually results in accelerated stream bank and shoreline erosion that degrades water quality. A buffer between 15-25 feet is usually suitable, but the more the better.

**Plant Native Michigan Plants:** Native plants actually help improve water quality and they're an attractive alternative to turf grass. Native plants generally have deeper roots that absorb runoff and break down pollutants that would otherwise go straight to the river. You can usually find native plants at your local nursery.



# OIL AND WATER DON'T MIX



Most oil pollution looks different than the pictures you see of oil covered beaches after a major spill or accident. In fact, poorly maintained vehicles are one of the largest causes of oil pollution in our waterways. Leaking automotive fluid goes from your car to the street, from street to storm drain, and from the drain directly into our rivers, lakes, and streams. This impacts aquatic habitats and makes waters unsafe for human recreation.

With over 250 million cars on the road, these small spills add up to big problems. It's estimated that Americans spill 180 million gallons of used oil each year. That's 16 times the amount spilled during the Exxon Valdez disaster! By quickly fixing leaks, you can help protect both your vehicle and our water resources.

While checking for leaks and resolving them helps, it's not just leaking fluids that cause issues. When washing a vehicle on pavement, the soap suds, grease, oil, and sediment that rinse off your car or lawn equipment also become stormwater pollutants.

Worse yet, this pollution is not an isolated problem that only impacts the neighborhood or local waterway where the leaks or spill occur. As part of the Grand River watershed, runoff in the Lansing area eventually enters the Grand River. From there, water flows from the mouth of the river in Grand Haven and into Lake Michigan. This means that hazardous chemicals on the ground at home impacts our local waterways, the Great Lakes, and beyond!



## Help Keep Our Waterways Clean

- Repair any leaks and drips from your automobile. This includes: motor oil, transmission fluid, anti-freeze/coolant, power steering fluid, brake fluid, gasoline and other lubricants. Remember, these chemicals are also dangerous to your pets.

- If you choose to change your own oil, do not dump the used oil in the yard, on your driveway, or in a storm drain. Find a local firm that will recycle the used oil.

- Do not use used motor oil to control dust on gravel driveways.

- Wash your car on the grass to filter out impurities or take it to a commercial car wash where the water is reclaimed (check local ordinances first).

- Basic automobile maintenance such as tune-ups, proper tire inflation, and efficient driving practices save on fuel, as well as water and air pollution.

- Abandoned automobiles should be taken to a scrap yard or donated to a local charity. Old cars sitting out in a field will leak oil and fuel.



# WETLANDS

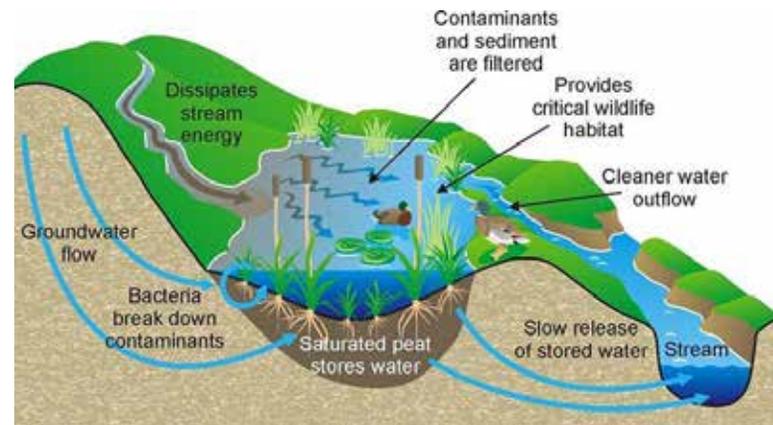


What is a wetland? Having often been referred to as "too wet to plow and too dry to swim," wetlands are transitional lands that lie between the water and dry ground. Most people think of wetlands as marsh-like areas filled with cattails. However, there are many types of wetlands such as swamps, marshes, bogs and fens, and seasonal wetlands such as wet meadows, sedge meadows and wet prairies.

Wetlands are areas where water either covers the soil or is at or near its surface at least part of the year. This saturation alters the development of the soil, resulting in an organically rich, special class of soils known as hydric soil. Wetland's importance to the protection of our lakes and streams cannot be overstated, as these unique environments act as natural filters, settling sediments and absorbing nutrients and other pollutants from runoff before they reach open water. They are also home to a diverse range of aquatic and terrestrial species. For this reason, many wetlands, particularly larger ones and those bordering the Great Lakes, are protected by state and federal laws. Several communities also regulate smaller wetlands. Some of the many benefits we derive from wetlands include:

- Flooding and storm water control. Wetlands help to stabilize soil and reduce erosion by soaking up excessive surface water runoff. They can then slowly release this excess water either into groundwater or into the lake or stream.
- Protecting water quality by filtering and breaking down sediments, nutrients, and toxins and then slowly releasing the water to recharge the groundwater.
- Providing habitat for many different species of wildlife including fish, insects, amphibians, reptiles, birds and mammals. This habitat is used for breeding, nesting, feeding and cover. Many threatened or endangered species depend on wetlands.
- Providing numerous recreational opportunities for fishing, bird watching, canoeing, hiking and hunting. In addition, there are other economic benefits such as farming for blueberries, cranberries, wild rice, and timber.
- Treating pollution by serving as a biological and chemical oxidation basin.
- Controlling erosion by serving as a sedimentation area and filtering basin for silt and organic matter.

You can play a role in protecting our vital wetland resources by helping to restore wetlands, promoting wetland stewardship and permanent protection through conservation easements, and educating yourself and others about the importance of wetlands and how to protect them.



# WHAT'S A WATERSHED?



Think of a watershed like a funnel. If you place a drop of water anywhere in the funnel, it will fall out through the spout. A watershed works much the same way, and it refers to any area of land that drains to a common point. Hills, mountains, and sloping topography separate watersheds and act like the walls of the funnel, while the rivers, streams, and stormwater drains act as the spout that concentrates the water flowing over the land, channeling it elsewhere.

Picture a drop of water falling on a hill, miles from the nearest stream. When the rain falls, some of the water soaks into the soil and some evaporates into the air, while the rest runs off the land. That water joins small streams and wetlands that drain into lakes and rivers, and eventually flows to the ocean. This is how trash, chemicals, or bacteria miles from a body of water can still end up in our rivers and lakes, and it's why we all need to understand how our actions impact local waterways and those downstream!

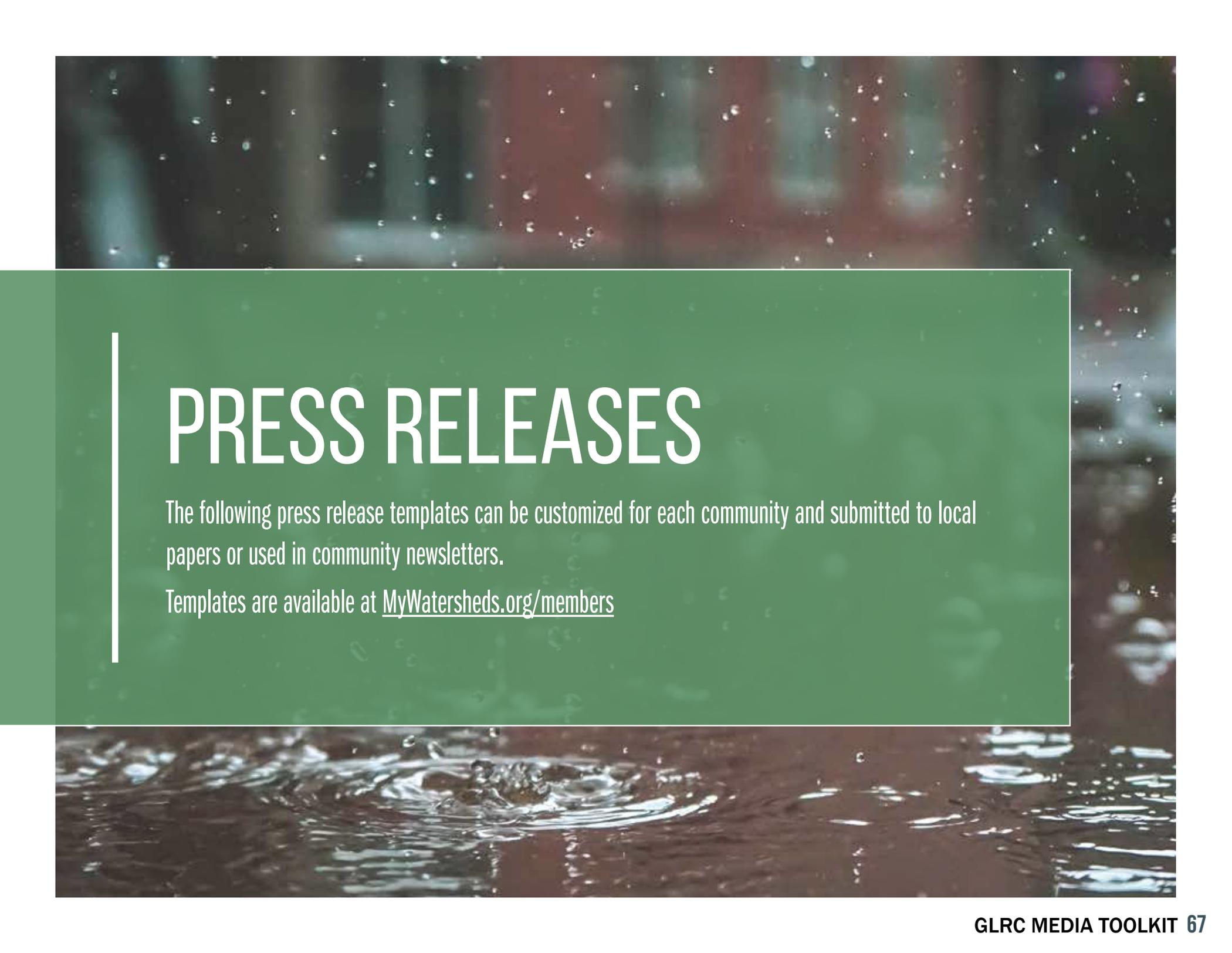
The urbanized area around Lansing lies within a portion of the Upper Grand River Watershed which can be broken into three smaller watershed areas: the Grand River Watershed (direct drainage), the Looking Glass River Watershed, and the Red Cedar River Watershed. The runoff from this area eventually drains into Lake Michigan at the mouth of the Grand River in Grand Haven, MI. Because of this connection, our actions at home have a direct impact on the health of the Great Lakes!



## Help Protect Our Water by Following These Tips!

1. Always conserve and reuse water wisely.
2. Soil test before you apply fertilizers. Use low or no-phosphorus fertilizers.
3. Use native vegetation and reduce turf grass by increasing native wildflowers and grasses.
4. Capture and reuse rainwater to control stormwater runoff.
5. Dispose of pet waste properly in the trash or toilet (not onsite septic systems).
6. Wash your car at a commercial facility or on the lawn instead of your driveway (if allowed by local ordinance).
7. Maintain all vehicles, eliminating leaks and spills.
8. Recycle and dispose of household chemicals properly (motor oil, household cleaners, paint, etc.).
9. Inspect and maintain onsite septic systems and sewers.
10. Join a local watershed organization!





# PRESS RELEASES

The following press release templates can be customized for each community and submitted to local papers or used in community newsletters.

Templates are available at [MyWatersheds.org/members](https://MyWatersheds.org/members)

# SOIL EROSION

A reminder to developers and construction companies of their responsibilities regarding soil erosion control.

FOR IMMEDIATE RELEASE: Month Day, Year

Contact: Name  
email@domain.com  
517-\*\*\*-\*\*\*\*

Town Name Reminds Developers to Prevent Erosion on Job Sites

(Town Name)'s construction activities can expose soils to the elements, resulting in erosion and water pollution. That's why (Town Name) officials are reminding developers and contractors of their responsibility to control erosion before, during, and after construction.

"Sediment and other pollutants can be carried off construction sites and end up in our rivers, lakes, and streams," said Town Official. "Developers and contractors should do their part to prevent stormwater pollution."

There are many ways to stabilize a site to control soil erosion, and it's important to select best management practices most suitable for your site. A combination of structural controls and operational practices are important to protect on-site natural features, like streams and wetlands, or built features like storm drains and downstream water resources.

Left unprotected from erosion, dirt and other pollutants will run off construction sites and enter storm drains that eventually discharge into rivers, lakes, and streams. Once in our local waterways, these pollutants impact fish habitats and can make our surface waters unsafe for swimming.

Preventing this type of stormwater pollution isn't just good for our waterways, it's the law. Many kinds of construction sites are required by federal law to take steps to prevent stormwater pollution. Developers must check to see if they need to obtain a permit prior to starting work.

"Allowing polluted stormwater to leave your site and enter a storm drain or waterway is against the law," said Town Official. "We encourage all developers to do their part to keep our water clean by planning ahead and keeping dirt in its place."

Insert Town Name is partnering with our neighbors at the Greater Lansing Regional Committee for Stormwater Management to stop pollutants like sediment from entering our waterways. Learn more about our joint efforts at [www.MyWatersheds.org](http://www.MyWatersheds.org).

For more information on Insert Town Name stormwater management plan, visit Insert Town website.



# PET WASTE

Educating homeowners on the impact of pet waste on water quality.

FOR IMMEDIATE RELEASE: Month Day, Year

Contact: Name  
email@email.com  
517-\*\*\*-\*\*\*\*

Municipality Name Encourages Residents to Pick Up After their Pets

Insert Town Name officials are reminding residents of their civic “doody” to scoop the poop in public areas and in their yards.

“Pet waste is more than a nuisance. It contains bacteria that can make people sick and pollute our local waterways,” said Town Official. “That’s why we’re asking dog owners to pick up after their pets.”

Keeping pet waste off the ground in public areas helps keep Insert Town Name clean and pleasant for our neighbors, but it also helps the environment. When left on the ground, precipitation and sprinkler runoff can wash pet waste and the bacteria it carries into storm drains. Since most storm sewers discharge directly into rivers, lakes, and streams without undergoing any treatment, runoff polluted with pet waste and other contaminants can impair our surface water resources.

People and dogs that come into contact with this water can also become sick. Just one gram of dog waste can contain as many as 23 million fecal coliform bacteria, and it can spread hookworm, ringworm, tapeworm, and salmonella. Due to their high-protein, highly processed diets, dog waste can contain more bacteria and pathogens by weight than that of cows!

Dog owners should carry a bag (preferably biodegradable) on walks to scoop and dispose of in the trash or a pet waste station. At home, be sure to frequently scoop – especially before rain – or hire a pet waste removal company to clean it up on a routine basis.

“There are many threats to our water quality, but picking up after our pets is one simple way we can do our part and reduce stormwater pollution,” said Town Official. “It also keeps Town Name parks and trails clean!”

Insert Town Name is partnering with our neighbors at the Greater Lansing Regional Committee for Stormwater Management to stop pollutants like pet waste from entering our waterways. Learn more about our joint efforts at [www.MyWatersheds.org](http://www.MyWatersheds.org).

For more information on Insert Town Name stormwater management plan, visit Insert Town website.



# INDUSTRIAL FACILITIES

Reminding industrial facilities of their responsibility to prevent leaks.

FOR IMMEDIATE RELEASE: Month Day, Year

Contact: Name  
email@email.com  
517-\*\*\*-\*\*\*\*

Town/City of Insert Name Reminds Industrial Facilities of Responsibility to Prevent Leaks and Spills

Keeping facilities and fleets well maintained is important for any industrial operation, but it's also essential to protect our local waterways. That's why Insert Town Name officials are urging industrial facility owners to do their part in preventing leaks and spills while repairing and maintaining their equipment.

"Automotive fluids, grease, and even suds from vehicle washing can flow into storm sewers that discharge into lakes, rivers, and streams," said Town Official. "Industrial facilities can be good stewards of our environment by focusing on the prevention of spills and leaks and properly addressing them if they do happen."

It's important to routinely inspect vehicles and equipment for leaks, fix them immediately, and clean up any spills. Perform maintenance inside, use drip pans to catch fluids, and keep spill kits with absorbents in maintenance areas to clean up quickly should an accident occur. Properly store and dispose of oils, cleaning products, and other chemicals. When loading or unloading raw materials, immediately sweep it up to keep it from being washed into storm drains. It's also important to keep lids on trash receptacles and dumpsters so rain doesn't become contaminated. Keep staff trained to identify potential stormwater pollutants and develop a company culture that prioritizes clean operations.

Leaks and spills can make our waterways unsuitable for recreation or aquatic life on a large scale. Just one pint of motor oil can create a slick the size of a football field! If we all play our part by maintaining clean industrial operations, we can reduce polluted runoff and keep our lakes, rivers, and streams healthy.

Insert Town Name is partnering with our neighbors at the Greater Lansing Regional Committee for Stormwater Management to stop pollutants like motor oil from entering our waterways. Learn more about our joint efforts at [www.MyWatersheds.org](http://www.MyWatersheds.org).

For more information on Insert Town Name stormwater management plan, visit Insert Town website.



# DUMPSTERS

A reminder to businesses and building managers to maintain dumpsters.

FOR IMMEDIATE RELEASE: Month Day, Year

Contact: Name  
email@email.com  
517-\*\*\*-\*\*\*\*

**[Insert Town]** Reminds Businesses and Apartment Complexes to Inspect Their Dumpsters

When left uncovered or overflowing, dumpsters can pollute our rivers, lakes, and streams. That's why **[Insert Town]** officials are urging businesses and apartment complexes to make routine dumpster inspection a habit.

"A full dumpster can be a smelly nuisance in its own right, but it can also contribute to water pollution," said **Town Official**. "Liquids in an uncovered dumpster, as well as loose trash outside of it, can be swept up with stormwater runoff and end up in our waterways."

This is especially important to avoid because storm sewer systems discharge into rivers and streams without undergoing any treatment. Therefore, anything we leave on the ground can be washed along with rain and snow melt, polluting the runoff and impacting downstream water quality. Luckily, there are many simple ways we can all play a part in protecting our environment.

Businesses should make routine dumpster inspections a habit and check and correct any leaks. All dumpsters and trash receptacles should be covered to prevent rain from entering, and staff should clean up spills daily. It's also important to ensure trash pick-up schedules are as frequent as needed and that employees and residents know not to dispose of hazardous materials in regular trash.

Clean facilities are good for business, make **[Insert Town]** inviting, and keep our waterways safe for fishing and swimming. "**[Insert Town]**'s business owners work hard to be good neighbors and contribute to our community," said **Town Official**. "By safely storing and managing their trash, they can keep our waterways healthy too."

**Insert Town Name** is partnering with our neighbors at the Greater Lansing Regional Committee for Stormwater Management to stop pollutants like litter from entering our waterways. Learn more about our joint efforts at [www.MyWatersheds.org](http://www.MyWatersheds.org).

For more information on **insert Town Name** stormwater management plan, visit **insert Town website**.

