Village of Pingree Grove Stormwater Management Program: Community Engagement Package

Project No.: 18-920

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Prepared for:
Village of Pingree
555 Reinking Road
Pingree Grove, Illinois 60140

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The Solution to Stormwater Pollution

- Control Measure Program: Public Education and Outreach
- Description: This brochure educates homeowners on the potential sources of pollution on their property and how they can prevent them.
- Use: Brochures will be available at Village Hall and on the Village website.

Make your home

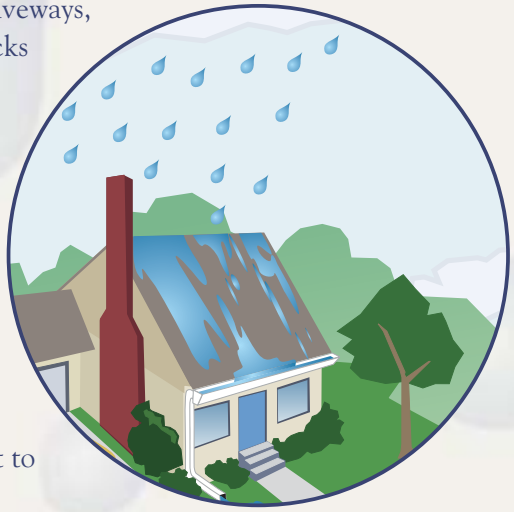
The

SOLUTION TO STORMWATER POLLUTION!

A homeowner's guide to healthy habits for clean water

EPA United States Environmental Protection Agency

As stormwater flows over driveways, lawns, and sidewalks, it picks up debris, chemicals, dirt, and other pollutants. Stormwater can flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water. Polluted runoff is the nation's greatest threat to clean water.

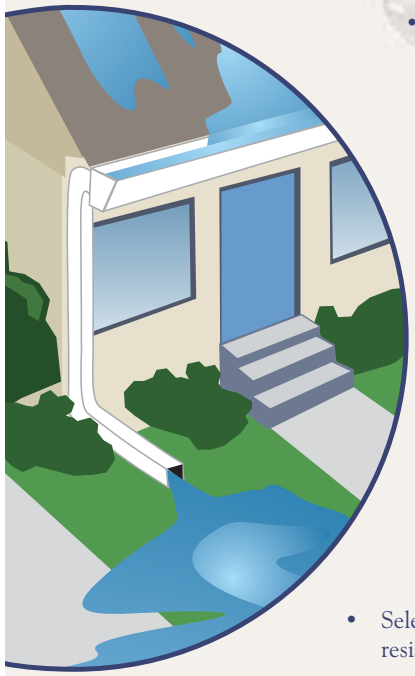


By practicing healthy household habits, homeowners can keep common pollutants like pesticides, pet waste, grass clippings, and automotive fluids off the ground and out of stormwater. Adopt these healthy household habits and help protect lakes, streams, rivers, wetlands, and coastal waters. Remember to share the habits with your neighbors!

Healthy Household Habits for Clean Water

Vehicle and Garage

- Use a commercial car wash or wash your car on a lawn or other unpaved surface to **minimize** the amount of dirty, soapy water flowing into the storm drain and eventually into your local waterbody.



- Check your car, boat, motorcycle, and other machinery and equipment for leaks and spills. Make repairs as soon as possible. Clean up **spilled fluids** with an absorbent material like kitty litter or sand, and don't rinse the spills into a nearby storm drain. Remember to properly dispose of the absorbent material.

- **Recycle** used oil and other automotive fluids at participating service stations. Don't dump these chemicals down the storm drain or dispose of them in your trash.

Lawn and Garden

- Use pesticides and fertilizers **sparingly**. When use is necessary, use these chemicals in the recommended amounts. Avoid application if the forecast calls for rain; otherwise, chemicals will be washed into your local stream.

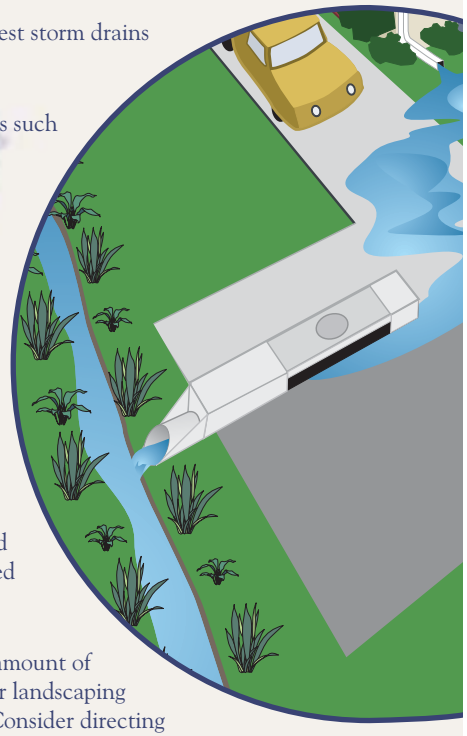
- Select **native** plants and grasses that are drought- and pest-resistant. Native plants require less water, fertilizer, and pesticides.

- **Sweep up** yard debris, rather than hosing down areas. Compost or recycle yard waste when possible.

- Don't overwater your lawn. Water during the **cool** times of the day, and don't let water run off into the storm drain.

- Cover piles of dirt and mulch being used in landscaping projects to prevent these pollutants from blowing or washing off your yard and into local waterbodies. **Vegetate** bare spots in your yard to prevent soil erosion.

Home Repair and Improvement



- Before beginning an outdoor project, locate the nearest storm drains and **protect** them from debris and other materials.
- **Sweep up** and properly dispose of construction debris such as concrete and mortar.
- Use hazardous substances like paints, solvents, and cleaners in the **smallest amounts possible**, and follow the directions on the label. Clean up spills **immediately**, and dispose of the waste safely. Store substances properly to avoid leaks and spills.
- Purchase and use **nontoxic**, **biodegradable**, **recycled**, and **recyclable** products whenever possible.
- **Clean** paint brushes in a sink, not outdoors. Filter and reuse paint thinner when using oil-based paints. Properly dispose of excess paints through a household hazardous waste collection program, or donate unused paint to local organizations.
- **Reduce** the amount of paved area and increase the amount of vegetated area in your yard. Use native plants in your landscaping to reduce the need for watering during dry periods. Consider directing downspouts away from paved surfaces onto lawns and other measures to increase infiltration and reduce polluted runoff.

Pet Care

- When walking your pet, remember to **pick up** the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

Swimming Pool and Spa

- **Drain** your swimming pool only when a test kit does not detect chlorine levels.
- Whenever possible, drain your pool or spa into the **sanitary** sewer system.
- Properly store pool and spa chemicals to **prevent** leaks and spills, preferably in a covered area to avoid exposure to stormwater.

Septic System Use and Maintenance

- Have your septic system **inspected** by a professional at least every 3 years, and have the septic tank **pumped** as necessary (usually every 3 to 5 years).
- Care for the septic system drainfield by **not** driving or parking vehicles on it. Plant only grass over and near the drainfield to avoid damage from roots.
- Flush responsibly. Flushing household chemicals like paint, pesticides, oil, and antifreeze can **destroy** the biological treatment taking place in the system. Other items, such as diapers, paper towels, and cat litter, can **clog** the septic system and potentially damage components.

Storm drains connect to waterbodies!

Remember: Only rain down the drain!

For more information, visit
www.epa.gov/npdes/stormwater
or
www.epa.gov/nps

EPA United States Environmental Protection Agency

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THE YEAR OF CLEAN WATER
Celebration of Recommitment

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Clean Water: Everybody's Business

- Control Measure Program: Public Education and Outreach
- Description: This brochure gives homeowners a list of specific ways to prevent stormwater pollution.
- Use: Brochures will be available at Village Hall and on the Village website.

Clean Water

Everybody's Business

10 Things You Can Do to Prevent Stormwater Runoff Pollution

- Use fertilizers sparingly and sweep up driveways, sidewalks, and gutters
- Never dump anything down storm drains or in streams
- Vegetate bare spots in your yard
- Compost your yard waste
- Use least toxic pesticides, follow labels, and learn how to prevent pest problems
- Direct downspouts away from paved surfaces; consider starting a rain garden
- Take your car to the car wash instead of washing it in the driveway
- Check your car for leaks and recycle your motor oil
- Pick up after your pet
- Have your septic tank pumped and system inspected regularly

EPA United States Environmental Protection Agency

For more information, visit
www.epa.gov/nps or
www.epa.gov/npdes/stormwater

Fact Sheet: Overview of Green Infrastructure

- Control Measure Program: Public Education and Outreach
- Description: This brochure educates residents on the applications, benefits, and costs of green infrastructure.
- Use: Brochures will be available at Village Hall and on the Village website.



WHAT IS GREEN INFRASTRUCTURE?

Green infrastructure (GI) refers to a decentralized network of site-specific stormwater management techniques (see below for examples). GI techniques are implemented to reduce the volume of stormwater runoff entering the sewer system while also restoring the natural hydrologic cycle. As opposed to gray infrastructure – the traditional network of costly large scale conveyance and treatment systems – green infrastructure manages stormwater through a variety of small, cost-effective landscape features located on-site.

How does Green Infrastructure work?

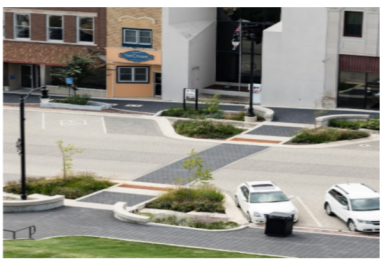
Green Infrastructure employs the following processes to design a hydrologically functional site that mimics predevelopment conditions:

- Infiltration (allowing water to slowly sink into the soil)
- Evaporation/transpiration using native vegetation
- Rainwater capture and re-use (storing runoff to water plants, flush toilets, etc.)

Common Green Infrastructure Techniques

- Downspout Disconnection
- Cisterns/rain barrels
- Bioretention (Rain Gardens)
- Vegetated ("Green") Roofs
- Stormwater Planter Boxes
- Infiltration Practices (Basins, Trenches, Dry Wells)

- Pervious Pavement with Infiltration
- Green Streets/Green Alleys
- Vegetated Swales
- Tree Trenches
- Vegetated Curb Extensions



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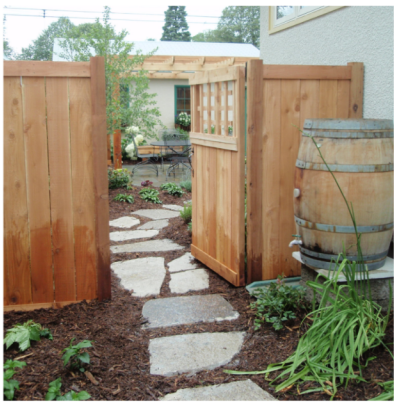

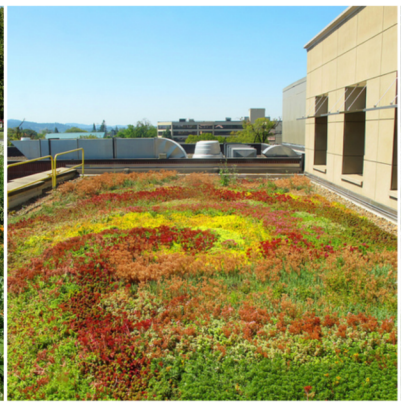


ADDITIONAL CONSIDERATIONS

Benefits of Green Infrastructure

Environmental Benefits:

- Recharges and improves quality of ground and surface waters
- Improves energy efficiency
- Reduces urban heat island effect
- Improves aquatic and wildlife habitat

Social Benefits:

- Improves aesthetics and livability of urban communities
- Increases recreational opportunities
- Improves water and air quality
- Fosters environmental education opportunities

Economic Benefits:

- Increases property values
- Reduces energy consumption costs

Maintenance of Green Infrastructure

Similar to conventional gray infrastructure, green infrastructure does require some level of maintenance to ensure optimal performance:

- Many GI techniques require regular maintenance, whether related to vegetation (weeding, pruning, mulching) or operational maintenance/repair (cleaning pervious pavement)
- The life cycle of the technology or vegetation used in the GI technique must be taken into account when preparing a maintenance plan

Cost of Green Infrastructure

- Costs for green infrastructure vary widely depending on specific site conditions and the type of GI techniques being used
- Often the cost of GI projects is competitive with comparable gray infrastructure projects

Source: Green Infrastructure Plan by the City of Lancaster

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Climate Change: How will you manage stormwater runoff?

- Control Measure Program: Public Education and Outreach
- Description: This brochure educates residents on implications of climate change as it relates to stormwater runoff.
- Use: Brochures will be available at Village Hall and on the Village website.

CLIMATE CHANGE

How Will You Manage Stormwater Runoff?

Most climate change scientists agree on one thing: we're going to see more frequent and intense storm and rainfall events along with increased flooding, stormwater runoff, and soil erosion. The increased runoff and flooding will force planners and stormwater specialists to develop strategies to deal with the increased volume and velocity of stormwater.

Some of these strategies may include:

1. Plan for more green infrastructure.
2. Use low impact development strategies to reduce stormwater.
3. Minimize impervious surfaces such as parking lots, roads, and rooftops.
4. Use smart growth and sustainable growth strategies that decrease road building and include transportation choices other than automobiles.
5. Encourage riparian buffers along streams, rivers, and waterways and maintain flood plains.
6. Protect and reestablish wetlands to hold runoff and recharge groundwater.
7. Encourage tree planting, especially in urban settings.
8. Promote landscaping with native vegetation to further reduce runoff and the need for irrigation.
9. Coordinate planning of infrastructure, housing, and transportation under the new climate change regime.

Source: Climate Change - How will you manage stormwater runofff? by Purdue University | Robert McCormick & Leslie Dorworth

Additional Resources

Chicago Climate Action Plan
www.chicagoclimateaction.org
The Chicago Climate Action Plan highlights the plans the city of Chicago proposes to take on relative to reducing the city's contribution to climate change.

NOAA Climate Services
www.climate.gov/#climateWatch
NOAA Climate Services site provides a national perspective on the impacts of climate change.

The Midwestern Regional Climate Center
http://mcc.sws.uiuc.edu
The Midwestern Regional Climate Center at the University of Illinois serves the nine-state (Illinois, Indiana, Wisconsin, Michigan, Kentucky, Iowa, Missouri, Minnesota, and Ohio) Midwest region. The center is an excellent source for climate data and research.

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