

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

SEDIMENT AND STORMWATER PROGRAM



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DELAWARE STORM DRAIN MARKING

Project Summary

Marking storm drains is a wonderful way to remind people in your community not to dump anything down the storm-water system. It leads directly to the nearest stream and into the bay or ocean! In addition, kids learn more about the environment by doing it. This project offers many opportunities to learn about other subjects including science. It also fits well into curriculums like Project WET and Project WILD, in addition to Delaware's 7th Grade Watershed Curriculum.

For more information about participating in this program, please call the Delaware Department of Natural Resources and Environmental Control's Sediment and Stormwater Program at (302) 739-9921.

When it rains...



Rain water that does not soak into the ground goes into the nearest storm drain.



This water then drains into a bigger drainage pipe that goes into the nearest stream, lake, or bay.



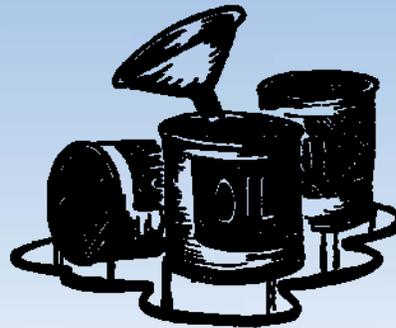
This runoff water can pollute our environment if it is not clean.

The Purpose of a Storm Drain

You can find storm drains throughout your neighborhood. They are found on the streets, outside of your home, and even near schools. It is a common misconception that storm drains flow to a wastewater treatment plant for the water to be treated. Storm drains are designed to carry stormwater, in the form of either rain or melting snow, directly to the nearest stream, river, lake, or wetland.



On its way to the storm drain, water picks up chemicals and other possible pollutants on parking lots, driveways, and lawns.



Common household chemicals and pollutants may include: gasoline, motor oil, antifreeze, pesticides, fertilizers, soil, pet waste, leaves, and grass clippings.

These pollutants are hazardous to humans, fish, and wildlife. Motor oil and vehicle fluids, such as brake fluid or transmission fluid, are toxic because they contain heavy metals. Antifreeze is poisonous and dangerous to animals and small children who are attracted to the color and taste. Gasoline is highly flammable and toxic. This is why it is especially important that no one dumps these types of pollutants (or anything at all) down the storm drain.

Why mark stormwater catch basins?

Marking stormwater catch basins is a great way to help citizens to remember not to dump anything down the storm drain, especially things that can harm our environment.

Before You Begin

Before you actually go out into the neighborhood to mark storm drains, there are a few things that should be done first.

1. Review the materials checklist.

Make sure that your stenciling kits are complete and that you have all of the tools that are needed to successfully complete this project.

2. Obtain permission.

Get permission to stencil storm drains from the public works department in your city or town. If the community you are marking is not located within the jurisdiction of a town, obtain permission from the homeowners association or DeIDOT. Ask for a letter that verifies that you have this permission in case a road crew questions you. In addition, obtain parent permission slips for the children that will be participating.

3. Check the weather.

The weather conditions for your stormwater marking day are very important. Plan this activity for a day in which no rain is expected. Also, try to mark storm drains in temperatures above 50 degrees F.

4. Divide your area.

Designate a team leader to visit the neighborhood that you will be marking. Use a neighborhood map to plan your route ahead of time.

5. Wear appropriate clothing.

To be visible, brightly colored clothing is recommended. In addition, dress for the weather, and be sure to wear old clothes.

6. Remind everyone about safety.

Remember, safety first. In the materials checklist, it is recommended that you bring along a First Aid kit. Also, be sure to work in groups. Make sure that everyone has a buddy, and that no one leaves his buddy's side.

7. Notify the neighborhood.

Notify people in the community about the stormdrain marker project. You can do this by placing brochures in the doors of the houses (not in the mailbox) as you're applying the markers. Another idea is to contact the local newspaper.

Materials Checklist

In your kit, you should find:

1. Storm drain markers
2. Glue for markers
3. Hand brush
4. Brochures for homes
5. Rags

You will need to bring:

1. Brightly colored clothing (old clothes)
2. Drinks, snacks, or lunches
3. First Aid kit
4. Sun screen, hat, and sun glasses

Applying Storm Drain Markers

NOTE: Choose morning time to apply your markers. This way, the glue has plenty of time to dry. Remember, if rain is forecast, you should choose a different day.

STEP 1: Select a flat (dry) surface to be marked at the storm drain and thoroughly brush it off.



STEP 2: Apply adhesive liberally to back of marker about 1/8" from outer edge, working toward center. Do NOT squeeze from center of tube. Squeeze gently from end and roll tube (like tooth-paste).

*Note: Adhesive stains clothing.
Poisonous. Do not consume adhesive.
Do not inhale fumes.*



Pattern for applying adhesive

STEP 3: When applying the marker, press down hard enough to force adhesive out around the entire edge of the marker. Make sure that the entire edge of the marker is sealed.



STEP 4: Leave a paper about the storm drain marking project at nearby houses. Place them in the door rather than in the mail-boxes.



What You Can Do To Help



Vehicles

Don't dump anything down the storm drains. Used motor oil can be taken to the Recycle Delaware Center through the Delaware Solid Waste Authority. To find out more, contact them at 1-800-404-7080 or visit them online at www.DSWA.com.

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 the storm drain.

Use a commercial car wash whenever possible. If you prefer washing your car at home, be sure to wash it on the lawn so that soapy water soaks into the ground and doesn't run directly into the storm drains, eventually making its way to your local waterbody.



Extra Pavement

Reduce the amount of paved area and increase the amount of vegetated area in your yard. Consider directing downspouts away from paved surfaces onto lawns to increase infiltration and reduce polluted runoff.



Hazardous Substances

Use hazardous substances like paints, solvents, and cleaners in the smallest amounts possible. Be sure to clean paint brushes in a sink, not outdoors. Properly dispose of excess paints through the Household Hazardous Waste Program. To find out more, contact the Delaware Solid Waste Authority at 1-800-404-7080 or go online at www.DSWA.com. Remember that latex paint is not hazardous and can be mixed with kitty litter, sand, or sawdust and left to harden. Dispose of hardened material in the regular trash.



Lawn and Garden

Use pesticides and fertilizers sparingly. If used, apply chemicals in recommended amounts only. Avoid application if the forecast calls for rain. Otherwise, chemicals will be washed into your local stream. Cover piles of dirt and mulch being used in landscaping projects. Do this to prevent sediment from washing into nearby waterbodies.

Additional Tips

There are other things that you can do to help keep the water clean. Here are some ideas!

- Pick up dog waste. If you don't clean it up, it will run into the nearest waterway during the next rain.
- Pick up trash.
- Compost grass clippings.
- Prevent excess runoff by not over-watering lawns.
- Maintain a healthy lawn without over-fertilizing.
- Obtain a soil test before adding any fertilizer. Fertilize only if you know that it won't rain.



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For more information, please contact the DNREC Sediment and Stormwater Program at 302-739-9921.