

Storm Drain Labeling Guidelines for New Jersey

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March 2004

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Acknowledgements

This guide is compilation of several guides and other materials that are already in existence. Many thanks to the following organizations:

*Partnership for the Delaware Estuary
Whippany River Watershed Partnership
United States Environmental Protection Agency*

Storm Drain Labeling Guidelines for New Jersey

Why Label Storm Drains?

Storm drain labeling is a great way to make people in your community more aware of nonpoint source pollution and polluted runoff. Nonpoint Source Pollution, or people pollution, is a contamination of our ground water, waterways, and ocean that results from everyday activities such as fertilizing the lawn, walking pets, changing motor oil and littering. With each rainfall, pollutants generated by these activities are washed into storm drains that flow into our waterways and ocean. Polluted runoff is stormwater contaminated by nonpoint source pollution. It harms local waterways, which we rely on for recreation and drinking water.

Residents may not be aware that most storm drains empty directly into local waterways, without treatment. Some individuals may view storm drains as trash receptacles for trash, used motor oil, leftover paint, pet waste or other pollutants. Storm drain labeling serves as an educational tool to remind people about the connection between storm drains and local waterbodies.

By labeling storm drains we can make everyone more aware of the nonpoint source pollution and polluted runoff. This is one step in educating people so that they can change their attitudes and behaviors that contribute to the problem.

Storm drain inlet labeling is also a requirement of New Jersey's new municipal stormwater permitting program. All Tier A municipalities are required to establish a storm drain inlet labeling program and label all storm drain inlets that are along municipal streets with sidewalks, and all storm drains within plazas, parking areas, or maintenance yards operated by the municipality. This program establishes a schedule for labeling, develops a long term maintenance plan and when possible coordinates the efforts with watershed groups and volunteer organizations. On an annual basis, these Tier A municipalities must identify the number of storm drains labeled. For more information on this program, visit www.njstormwater.org or call 609-633-7021.

A key factor in the success of a storm drain labeling program is visibility. Publicity in the local media about the event and volunteer participation in the event greatly increases the value of the labeling program as an educational tool. Municipalities are not required to use volunteers or seek media attention, but these activities do greatly improve the overall value of the program. Municipalities may opt to label the storm drains themselves or organize the storm drain labeling activities of local volunteers.

Types of Labeling

There are two types of storm drain labeling that can be done, stenciling with paint or gluing storm drain markers. Stenciling involves using a stencil and paint to label the drain. This type of marking has been used since early 1990s. The paint generally lasts up to 2 years, depending on weather and traffic conditions. Marking involves gluing a purchased marker to the storm drain. This method may last up to 10 years.

In determining which type of labeling to use, consider the cost of materials and how long they will last. Stenciling costs less initially and lasts a shorter time than markers which costs more initially but last longer. Another consideration is the educational value of the actual labeling process for the participants and residents. Since stenciling is done more frequently, it provides a more frequent reminder about polluted runoff.

How to Label Storm Drains

Below we have outlined the various tasks necessary to conduct a successful labeling event. At each event there are unique circumstances that come up and must be addressed by the organizers. A coordinator should be designated to oversee the event.

Preparation before the Event

1. Form an organizing committee and designate tasks.
2. Determine whether or not you will use stencils or markers. Determine what your stencils or markers will say and whether or not you want to include a graphic such as a fish, turtle, heron or crab. Some suggested messages are: “NO DUMPING – DRAINS TO RIVER,” “ONLY RAIN DOWN THE STORM DRAIN,” and “DUMP NO WASTE – DRAINS LOCAL WATERWAY.” These messages can be customized to include the names of local waterbodies. In addition, you may wish to print the message in other languages depending on the community. Spanish is included as a standard on some markers.
3. Determine whether you will be purchasing materials or looking for donations. Include time to manufacture the markers or stencils in your timeline.
4. Identify your targeted area for labeling. Survey the area to locate the storm drains and determine how many there are. This information will determine how many labels you will need to buy and how many people will be involved in the event.
5. Select a date and a rain date for the event. Select the time and meeting location for the event.
 - a. Find out if there are any other events planned for that time period that might conflict or compliment your labeling event. A litter clean-up by the local environmental commission or flower planting by the garden club would compliment your labeling.

- b. The pavement or storm drain structure must be over 50 degrees for marking so that the adhesives will work properly. The surface must be dry for either stencils or markers.
6. Obtain written permission from your county or municipality to conduct the labeling. Call your county or municipality to find out the appropriate person or department to obtain permission from, usually the public works, highway or sewage authority. Ask them for a map of storm drains that you have permission to label.
7. In order to involve more volunteers, call various groups in your school and neighborhood to find out if they would be interested in participating. Consider involving your local AmeriCorps New Jersey Watershed Ambassador (See Resources Available at NJDEP section).
8. Prepare a promotional flyer to distribute to potential volunteers. You may want to invite friends, family, school clubs, youth groups, community organizations and neighbors. It may be beneficial to call these groups and/or make a presentation at one of their meetings.
9. Request support from local businesses to provide refreshments either before or after the event. Local businesses may also wish to contribute stenciling supplies (garbage bags, paint, brushes, gloves, etc.).
10. Invite community leaders including elected officials to participate in the event.
11. Acquire or prepare an informational flier to hand out during the event. Many materials are available for no or low cost from government agencies such as the NJ Department of Environmental Protection, local environmental groups or watershed associations (See Resource Section at the back of this booklet).
12. Prepare a press alert at least two weeks prior to the event and send it to the local media. Follow-up by calling the reporters and editors before the event.
13. Survey the area before the event to familiarize yourself with it. Note any safety concerns.

Week before the event

14. Make sure all materials are on hand. Prepare packets of supplies and information for each of your teams. Include a map of their area to label. Prepare sign-in sheets, name tags, and copies.
15. Make follow-up phone calls to confirm volunteers. Advise them of who to call in case of inclement weather. Make sure they know the time and location for the event.

16. Confirm refreshments if you are providing them.
17. Make follow up phone calls to the news media and local officials.

Day of the Event

1. Plan to arrive early to allow time to set-up before volunteers arrive.
2. Register volunteers. Allow about 30 minutes for registration and refreshments.
3. Give an overview of the day and why their work is important.
4. Divide volunteers into teams. Assign a team leader. Teams should be composed of 4 to 6 people. Make sure they have enough supplies for the area they will cover. Go over safety considerations.
5. Give volunteers a lesson on how to label the storm drain.
6. Send teams out to different areas, making sure that each team is clear on what area they are to stencil. Give them a specific time to return.
7. Take photographs of the event in order to document it and/or use them in a post-event press release.
8. When they return, collect leftover supplies. Dispose of any collected trash and recyclables properly.
9. Ask volunteers for feedback on the event. Provide refreshments if appropriate.

Follow-up after the Event

1. Send thank you letters to volunteers, businesses, supporters and any others that assisted you in the project.
2. Send a post-event press release to the local media. Include photographs of the actual event. Be sure to mention volunteer groups, sponsors and community leaders that were involved in the event.
3. Put together a summary of the event and provide it to your municipality.

Labeling Tips

All surfaces must be dry for either stenciling or marking.

Remember while working in or near the street, there is inherent risk. Be very cautious of passing cars, especially if you are working with children. Consider wearing brightly-colored safety vests, using traffic cones to protect your team and assigning a team member to serve as look-out for traffic.

Storm Drain Stenciling Tips

Supplies you will need:

- Stencils
- Latex paint
- Foam brushes
- Safety Vests
- Educational flyers
- Gloves*
- Paint stirrer
- Wire brushes or brooms
- Dustpans
- Newspapers or rags
- Trash bags

Remember:

- A little paint goes a long way!! Using too much blurs the stencil image.
- Try to stencil in area where cars will not be driving directly on the paint. This greatly shortens the life of the paint.

How to stencil:

- Use a wire brush or broom to clear away any loose debris from the spot where the stencil will be placed. Pull weeds if necessary. Put debris in garbage bags and dispose of it properly. Keep recyclables separate and recycle any items that can be recycled.
- Designate one team member as the safety person to look out for vehicles.
- Have two team members hold down the stencil firmly on the street in front of or behind the storm drain. A third team member can gently sponge or brush paint onto the stencil. You do not need to soak the brush. The less paint you use the more control you will have in painting a clearly legible message. When using the foam brush, press straight up and down on the street to apply the paint. Wiping side to side will cause the paint to get trapped under the stencil blurring the message. All three of these team members should wear gloves.
- Once painting is completed, lift the stencil straight up to prevent smearing.
- While some team members are stenciling, others may hand out educational flyers to people passing by or to nearby businesses in the vicinity of the stenciled areas.

****Please note that many people have allergic reactions to latex gloves. Check with your team members before distributing them if you use latex gloves.***

Storm Drain Marking Tips

Supplies you will need:

- **Markers**
- **Adhesive**
- **Safety Vests**
- **Educational flyers**
- **Gloves***
- **Wire brushes or brooms**
- **Dustpans**
- **Newspapers or rags**
- **Trash bags**

Remember:

- Try to place the marker in area where cars will not be driving directly on it. This can greatly shorten the life of the marker.
- Surface temperatures must be over 50 degrees for most of the adhesives used to seal properly.

How to apply a marker:

- Use a wire brush or broom to clear away any loose debris from the spot where the stencil will be placed. Pull weeds if necessary. Put debris in garbage bags and dispose of it properly. Keep recyclables separate and recycle any items that can be recycled.
- Designate one team member as the safety person to look out for vehicles.
- Have two team members apply the adhesive in a spiral pattern on the back of the marker. Be sure to wear gloves.
- Apply the marker to the cleaned area. Press down hard to insure a proper seal with the adhesive under the entire surface of the marker.
- While some team members are applying markers, others may hand out educational flyers to people passing by or to nearby businesses in the vicinity of the stenciled areas.

****Please note that many people have allergic reactions to latex gloves. Check with your team members before distributing them if you use latex gloves***

Storm drain markers are available from two sources:
This information does not constitute an endorsement by the NJDEP of either of these manufacturers.

ACP International
1010 Oakmead
Arlington, Texas 76011
817-640-0992
www.acpinternational.com

das Manufacturing
3610 Cinnamon Trace Drive
Valrico, Florida 33594
800-549-6024
www.dasmanufacturing.com

For storm drain stencils, you may purchase stencil materials locally and create your own OR purchase pre-cut or custom stencils from:

Earthwater Stencils
Rochester, Washington
(360) 956-3774
www.earthwater-stencils.com

In addition, check with watershed association and environmental groups listed in the Additional Resources Section. They may have customized labels or markers for your watershed.

NonPoint Source Pollution Tips

Information in this section can be used in preparation of an educational flyer to distribute while labeling. Check with your local watershed association or environmental group listed in the Additional Resources Section for local educational materials.

Nonpoint Source Pollution is the contamination of our ground water, waterways, and ocean that results from everyday activities such as fertilizing the lawn, walking pets, changing motor oil and littering. With each rainfall, pollutants generated by these activities are washed into storm drains that flow into our waterways and ocean. They also can soak into the ground contaminating the ground water below.

Each one of us, whether we know it or not, contributes to nonpoint source pollution through our daily activities. As a result, nonpoint source pollution is the BIGGEST threat to many of our ponds, creeks, lakes, wells, streams, rivers and bays, our ground water and the ocean.

The collective impact of nonpoint source pollution threatens aquatic and marine life, recreational water activities, the fishing industry, tourism and our precious drinking water resources. Ultimately, the cost becomes the burden of every New Jersey resident.

But there's good news - in our everyday activities we can stop nonpoint source pollution and keep our environment clean. Simple changes in YOUR daily lifestyle can make a tremendous difference in the quality of New Jersey's water resources. Here are just a few ways you can reduce nonpoint source pollution.

LITTER: Place litter, including cigarette butts and fast food containers, in trash receptacles. Never throw litter in streets or down storm drains. Recycle as much as possible.

FERTILIZERS: Fertilizers contain nitrates and phosphates that, in abundance, cause blooms of algae that can lead to fish kills. Avoid the overuse of fertilizers and do not apply them before a heavy rainfall.

PESTICIDES: Many household products made to exterminate pests also are toxic to humans, animals, aquatic organisms and plants. Use alternatives whenever possible. If you do use a pesticide, follow the label directions carefully.

HOUSEHOLD HAZARDOUS PRODUCTS: Many common household products (paint thinners, moth balls, drain and oven cleaners, to name a few) contain toxic ingredients. When improperly used or discarded, these products are a threat to public health and the environment. Do not discard with the regular household trash. Use natural and less toxic alternatives whenever possible. Contact your County Solid Waste Management Office for information regarding household hazardous waste collection in your area.

MOTOR OIL: Used motor oil contains toxic chemicals that are harmful to animals, humans and fish. Do not dump used motor oil down storm drains or on the ground. Recycle all used motor oil by taking it to a local public or private recycling center.

CAR WASHING: Wash your car only when necessary. Consider using a commercial car wash that recycles its wash water. Like fertilizers, many car detergents contain phosphate. If you wash your car at home, use a non-phosphate detergent.

PET WASTE: Animal wastes contain bacteria and viruses that can contaminate shellfish and cause the closing of bathing beaches. Pet owners should use newspaper, bags or scoopers to pick up after pets and dispose of wastes in the garbage or toilet.

SEPTIC SYSTEMS: An improperly working septic system can contaminate ground water and create public health problems. Avoid adding unnecessary grease, household hazardous products and solids to your septic system. Inspect your tank annually and pump it out every three to five years depending on its use.

BOAT DISCHARGES: Dumping boat sewage overboard introduces bacteria and viruses into the water. Boat owners should always use marine sanitation devices and pump-out facilities at marinas.

As you can see, these suggestions are simple and easy to apply to your daily lifestyle. Making your commitment to change at least one habit can result in benefits that will be shared by all of us and add to the health and beauty of New Jersey's water resources.

Resources Available at NJDEP

These resources are available through the NJDEP Division of Watershed Management and are provided for low or no cost. Please call 609-292-2113 or visit www.nj.gov/dep/watershedmgt

The New Jersey Watershed Ambassadors Program

The New Jersey Watershed Ambassadors Program is a community-oriented AmeriCorps environmental program designed to raise awareness about water issues in New Jersey. Through this program, AmeriCorps members are placed across the state to serve their local communities. Watershed Ambassadors monitor the rivers of New Jersey through River Assessment and Biological Assessment volunteer monitoring protocols. Watershed Ambassadors also make interactive presentations to community organizations and schools. They also organize and participate in stewardship projects such as storm drain stenciling, litter clean-ups and restoration projects.

Project WET (Water Education for Teachers)

Project WET is a nationally renowned program that offers teachers a better understanding about the world's water resources through hands-on, multi-disciplinary lessons. Project WET is the only program that teaches about the importance and value of water in our every day life with formal and non-formal educators while offering specialized programs about New Jersey's water resources and watersheds. NJ Project WET is a well-rounded program that focuses on water supply, water quality, water conservation, watershed management, land use planning and wetlands. Project WET provides educators with accurate insight into critical water issues while offering a large selection of creative teaching strategies.

In addition to workshops, NJ Project WET reaches another 5,000 students annually and an estimated 12,000 parents, volunteers, educators and administrators through its Water Festival Grant Program. A Water Festival is a one-day celebration of water with a focus on a school's watershed. Students participate in a series of learning stations that examine water use over time, water's role in shaping our country, what a watershed is, how water is cleaned and used again, how a molecule travels through the water cycle and much more. The festivals involve the community and attract positive media attention that reaches thousands of people across the state.

NJ Project WET offers a unique learning opportunity for high school students and teachers through its Watershed Stewards Program. This program focuses on a weekend leadership workshop for a high school team of four or five students. They are provided instruction and training in watershed topics and team-building experiences that prepare them to focus on a watershed service project that will address an environmental concern. Each Watershed Steward Team must work with three community organizations and solicit another 20 volunteers to assist with the project. Participants receive a small grant to conduct a Watershed Steward Project.

Harbor Watershed / Urban Fishing Program

The goal of the Urban Fishing Program is to educate young students living in the Newark

Bay Complex about the hazards of eating contaminated fish and help them to discover the beauty of the great natural resource. Students who participate in the program sample recreational opportunities that the bay has to offer while learning how to be responsible citizens within the estuary. The students experience four days of intense yet enjoyable instruction related to the Newark Bay Complex. Throughout the four days students are given hands-on experiences such as fishing, water monitoring, eco-cruising and community clean-ups which will endure with them over a lifetime. The program also includes a storm drain marking program that can help municipalities fulfill their stormwater permitting requirements.

Clean Water Raingers Program

This program offers educators a number of teaching materials for their students as well as background information on watersheds and nonpoint source pollution. Educators who participate in the Clean Waters Raingers Program are provided with free booklets and associated materials for their elementary school age students. The *Clean Water Raingers Coloring Book*, *How to be a Clean Water Rainger Booklet* and the *Clean Water Raingers stickers* are also popular giveaways at family oriented events and festivals. These publications are also available online on the Department's environmental education web page.

Volunteer Monitoring Program - Watershed Watch

The Division has begun to implement a Volunteer Monitoring Program over the last several years. Volunteers are being encouraged to assess their local waterways using visual surveys or benthic macroinvertebrate studies. The Watershed Watch Network, comprised of volunteer monitors from across the state, works with the Department to better coordinate and improve the data collected by volunteers.

Publications

The DWM produces a number of stormwater related publications that are available for free distribution to municipalities, watershed associations, environmental groups or other organizations. These include *What's A Watershed?* Brochure, *New Jersey's Watersheds* Poster, and *Watershed Focus* Newsletter.

Additional Resources

There are many government agencies, environmental groups, and watershed association that have resources to help you. They can help you organize an event, provide volunteers, or provide educational resources. Please contact organizations in your area.

New Jersey Department of Environmental Protection Division of Watershed Management

PO Box 418

Trenton, NJ 08625-0418

609-292-2113

www.nj.gov/dep/watershedmgt

Alliance for a Living Ocean

2007 Long Beach Boulevard

North Beach Haven, NJ 08008

609-492-0222

livingoceanalo@comcast.net

<http://www.livingocean.org/index.html>

Clean Ocean Action

18 Hartshorn Drive

PO Box 505

Highlands, NJ 07732

732-872-0111

sandyhook@cleanoceanaction.org

<http://www.cleanoceanaction.org/>

Great Swamp Watershed Association

PO Box 300

New Vernon, NJ 07976

973-966-1900

everything@greatswamp.org

<http://www.greatswamp.org>

Jacques Cousteau National Estuarine Research Reserve

Jacques Cousteau Coastal Education Center

130 Great Bay Boulevard

Tuckerton, NJ 08087

609-812-0649

weiss@imcs.rutgers.edu

<http://www.jcnerr.org/>

Lisa Weiss

Monmouth Coastal Watersheds Partnership

c/o Monmouth County Planning Board

One East Main Street

Freehold, NJ 07728

732-431-7460

Turner Shell

<http://www.visitmonmouth.com/area12/>

North Jersey Resource Conservation and Development Council

54 Old Highway 22

Clinton, NJ

908-735-0733

chall@northjerseyrcd.org

<http://www.northjerseyrcd.org/>

Christine Hall

Partnership for the Delaware Estuary

1009 Philadelphia Pike

Wilmington, DE 19809

1-800-445-4935

partners@udel.edu

www.delawareestuary.org

Passaic River Coalition

246 Madisonville Road

Basking Ridge, N.J. 07920

908-766-7550

prwater@aol.com

<http://www.passaicriver.org/>

Ella Filippone

Pequannock River Coalition

PO Box 392

Newfoundland, NJ 07435

973-492-3212

pequannockguy@aol.com

Ross Kushner

Pohatcong Creek Watershed Association

256 Creek Road

Phillipsburg, NJ 08865

(908) 213-1550

www.pcwa.org

Dawn Areia

Pompeston Creek Watershed Association

551 New Albany Road
Moorestown, NJ 08057
(856) 235-9204
dlord@aol.com
Debbie Lord

Rockaway River Watershed Cabinet
c/o Morris 2000
2 Ridgedale Avenue
Cedar Knolls, NJ 07927
973-984-2000

South Branch Watershed Association
Lechner House, Echo Hill
Environmental Area, 51 Lilac Drive
Flemington, NJ 08822
908-782-0422
sbwa@eclipse.net
<http://www.sbwa.org>

Stony Brook Millstone Watershed Association
31 Titus Mill Road
Pennington, NJ 08534
609-737-3735
creed@thewatershed.org
www.thewatershed.org

Sussex County Municipal Utilities Authorities
34 Route 94 South
Lafayette, NJ 07848
973-579-6998
scmua@nac.net
<http://www.wallkillriver.org/>
Nathaniel Sajdak

Ten Towns Great Swamp Watershed Management Committee
c/o Morris 2000
2 Ridgedale Avenue
Cedar Knolls, NJ 07927
973-984-2000
<http://www.tentowns.org>

Watershed Management Area 3 Public Advisory Committee
holzafeg@waynetownship.com
George Hozapfel

Watershed Management Area 4 Public Advisory Committee
Ellen Gruber
mandegruber@hotmail.com

Watershed Management Area 5 Public Advisory Committee
Bergen County Department of Health Services
327 East Ridgewood Avenue
Paramus, NJ 07652
201-634-2600
avernick@aol.com or tdecandia@co.bergen.nj.us
Anthony Vernick or Anthony DeCandia

Watershed Management Area 19 Public Advisory Committee
Burlington County Office of Land Use Planning
P. O. Box 600
Mt. Holly, NJ 08060
Gina Berg

Wreck Pond Watershed Association
809 Central Avenue
Spring Lake Heights, NJ 07762
732-449-8764
wreckpond@hotmail.com

Clean Communities Program

Sandy Huber, Executive Director

Clean Communities Council

479 West State Street

Trenton, NJ 08618

609-989-5900

info@njclean.org

<http://www.njclean.org/>

The Clean Communities Council works with the state departments of Environmental Protection and Treasury to oversee the implementation of litter abatement programs in 556 municipalities and 21 counties. The Council provides a clearinghouse for information about litter abatement, forums for the free exchange of ideas, and a voice for its constituents.

The Council also will ask towns and counties to report how Clean Communities grant money is spent—the number of cleanups held, number of volunteers who participated, the amount and type of litter and recyclables picked up, and the number and type of educational programs offered to schools and community groups. This information will be compiled in the Annual Report to the Governor and Legislature

Storm drain labeling is one of the allowable costs under this entitlement program. If you are planning a storm drain labelling event, please contact your local Clean Communities Coordinator to see if funding is available.

Useful websites

In addition, there are many valuable websites that can give you background information on nonpoint source pollution, polluted runoff, watershed and storm drain marking. They are listed below.

NJ Department of Environmental Protection

www.nj.gov/dep

features information on the Department's clean water initiatives, educational materials and regulatory programs

United States Environmental Protection Agency

www.epa.gov/owow/nps/

features basic information at the national level on nonpoint source pollution

The Watershed Institute

www.thewatershedinstitute.org

features information about watershed associations from across the state

Watershed Partnership for New Jersey

www.wpnj.org

features information on watershed educational resource in New Jersey