

Storm Drain Marking

Storm drain marking involves labeling storm drains with plaques, tiles, painted, or pre-cast messages warning citizens not to dump pollutants into the drains. The messages are generally a simple phrase or graphic to remind those passing by that storm drains connect to local waterbodies and that dumping will pollute those waters. Some storm drain markers specify which waterbody it drains to by naming the specific creek, lake, or bay. Common messages include: "No Dumping. Drains to Water Source," "Drains to Creek," and "You Dump It, You Drink It. No Waste Here." In addition, storm drain markers often have pictures to convey the message, including shrimp, fish, or a graphic depiction of the path from drain to waterbody.

Why

Municipalities can undertake storm drain marking projects throughout the entire community, especially in areas with sensitive waters or where trash, nutrients, or biological oxygen demand have been identified as high priority pollutants. Regardless of the condition of the waterbody, the signs can raise awareness about the connection between storm drains and receiving waters and can help deter littering, excess fertilizer use, dumping, and other practices that contribute to nonpoint source pollution and urban runoff.

Benefits

Storm drain marking projects offer an excellent opportunity to educate the public about the link between the storm drain system and water quality. In addition to the labeled storm drains, media coverage of the program or storm drain marking event can increase public awareness of storm water issues. Volunteer groups can provide additional benefits by picking up trash near the marked storm drains and by noting where maintenance is needed. Additionally, marking projects can provide a lead-in to other volunteer projects and increase community participation in a variety of other storm water activities.

Challenges

A storm drain marking program is generally effective, inexpensive, and easy to implement. However, larger communities can have many storm drains, so coordinators need to be skilled at recruiting and organizing the efforts of volunteers to provide adequate coverage over large areas. Safety considerations might also limit marking programs in areas where traffic congestion is high.

How

Municipalities should prioritize drains for marking, because marking all drains would be expensive. The drains should be carefully selected to send the message to the maximum number of citizens (for example, in areas of high pedestrian traffic) and to target drains leading to waterbodies where non-point source pollution has been identified.

Communities with a large Spanish-speaking population should consider developing markers in both English and Spanish, or using a graphic alone.

Municipal crews or volunteers can mark storm drains. Some municipalities feel that having their own crews do the work produces better results and eliminates liability and safety concerns. Others cooperate with volunteer groups to conduct marking projects. Volunteer groups provide the labor while the municipality provides supplies and safety equipment. The benefit of using volunteers is increased public awareness of both storm water pollutants and their path to waterbodies. Both methods can be used, for example, volunteers could be used in areas of lower automobile traffic and higher safety concerns. Consult with the municipal attorney to liability issues and how to address them.

Designate a Leader

The municipality should designate a person in charge of the storm drain marking program. One responsibility of this individual is to coordinate volunteers. Organizers and coordinators should provide the following:

- Marking kits containing all materials and tools needed to carry out a marking project
- A map of the storm drains to be marked
- Training for volunteers on safety procedures and on the technique to be used
- Safety equipment (traffic cones, safety vests, goggles, gloves)
- Incentives and rewards for volunteers (badges, T-shirts, certificates).

The coordinator can also provide pollutant-tracking forms to collect data on dumping. Participants in storm drain marking projects can note storm drains that are clogged with debris or show obvious signs of dumping. This

enables city crews to target cleanup efforts. Organizers should instruct volunteers on what kinds of pollutants to look for and how to report it. Volunteers also should record the locations of all storm drains labeled during the project for the city to track. Additionally, the participants should convene after the event to talk about what they have found. Their reactions and impressions can help organizers improve future marking projects.

Obtain Materials

Permanent signs made from aluminum, plastic, or other durable materials can be affixed with adhesive or heat applied to the street or sidewalk surface. These markers last longer than stenciled messages and need only glue to affix them to storm drain inlets. Many stock designs are available, or a municipality can develop or commission a design that is specific to the locality, such as with the name of the waterbody to which the inlet drains. These permanent signs can also be neater and easier to read from a distance. One NC municipality tried clay tiles, but found they broke too easily.

Stencils and paint can also be used. We have learned these are messy, may not last as long, need to be reapplied, and may pose a safety concern due to aerosol spray paints. Environmentally friendly paint should be used if stenciling is chosen. Place markers where they can be easily read by pedestrians. They may be affixed to the drain itself, the curb, or the street. Markers affixed to the street may be more apt to be damaged or unreadable over time.

Another option is to retrofit or equip new developments with catch basins, grates, or inlet covers that are pre-cast with a storm water education message. This option is the longest lasting and most costly of the storm drain marking alternatives. It does not, however, lend itself to public participation because professional installation is required.

Conduct Outreach

If a municipality chooses to initiate a storm drain marking program and solicit the help of volunteer organizations, they can advertise through a variety of channels. Outreach strategies include the following:

- Distributing pamphlets and brochures to area service organizations
- Placing articles in local magazines
- Taking out newspaper ads
- Making presentations at community meetings
- Developing public service announcements for radio
- Using a web site with background information, photos, and stories from past marking events
- Notify newspapers for advanced coverage of the event.
- Issue a news release the day of the event to help attract other media.
- Distribute door hangers or flyers within the community notifying when and why stormdrain marking is taking place.
- Volunteers, including chaperoned children, can be used to distribute flyers.

For any volunteer project to be successful, volunteers must feel they have done something worthwhile. Communities active in storm drain marking have developed a variety of ways to recognize volunteers, including

- Providing participants with certificates of appreciation and/or letter of thanks signed by the mayor
- Distributing logo items such as T-shirts, hats, badges, plastic water bottles
- Holding a picnic or small party after the event with refreshments donated by a local business
- Providing coupons for free pizza, hamburgers, ice cream, or movies donated by local merchants
- Taking pictures of storm drain marking teams before, during, and after the event to create a pictorial record of volunteers' activity.

Who's Doing It?

- Wilmington, NC [<http://www.ci.wilmington.nc.us/pubservices/stormwater/KeepItCleanCampaign.htm>]
- Charlotte, NC [<http://www.charmeck.org/Departments/LUESA/Water+and+Land+Resources/Programs/Water+Quality/Storm+Drain+Marking.htm>]
- East Dakota Water District [<http://www.brookings.com/bswf/teachers/tp2.htm>]

More Info

EPA Storm Drain Marking (http://cfpub.epa.gov/npdes/stormwater/menuofbmps/invol_6.cfm)

