



Description

As the demands of the NPDES permitting and its corresponding source control philosophy become more prominent across the nation, the need for public awareness and education is becoming vitally important. In order for the implementation of a successful urban stormwater management program, there must be an interaction with and education of the public from the program’s inception as well as throughout its service life. This program needs to address the importance of having a stormwater management plan and reveal the potential repercussions of not having a functional program.

Stormwater education starts with a well-thought-out and well-developed outreach plan to make the public aware of the problem of stormwater pollution and ways they can help to prevent it. The outreach plan should identify goals and objectives, classify the target audience, identify the message to be conveyed, and explain how the message will be distributed to the audience.

Selection Criteria

The first step is to determine the goal and objectives of the outreach plan. The long-term goal should be set before the appropriate steps can be taken to accomplish that goal.

Depending upon the goals that a particular municipality has in mind, there are some general objectives that can be developed. First of all, it is important inform and educate the stakeholders and the public about:

- Stormwater management programs and needs
- The Federal stormwater quality regulations and requirements
- Stormwater management program costs and financing alternatives (emphasis on stormwater utility)
- The direction and projected growth of the program.

The next step is determining the target audience. It is important to keep in mind that different sectors of the “public” will take part in or be interested in very different issues and stages of the program:

- The environmental community will be vitally interested in water quality issues;
- School children can be interested in the environment or creek clean-up projects;

- Social classes may be interested in utility fees or charges;
- Tax exempt and governmental properties will be interested in fees or charges;
- The developers will be very interested in regulatory and economic aspects;
- Specific neighborhoods will be interested in special provisions for drainage controls, safety, greenways, etc.;
- Design professionals will have an interest in the technical criteria and regulatory requirements; and
- Commercial and industrial concerns may deal with fees and charges/credits.

Public outreach and education programs often need to be conducted and tailored to address a wide range of very different audiences, each with their own special interests and needs.

After determining the target audience, the next step is deciding how to reach it. If there is more than one audience to address, can they be reached simultaneously or should they be prioritized? This will depend on the type(s) of audiences to be reached and the message(s). Once the target audience(s) has/have been determined and the stormwater message has been packaged, distribution can begin. Outreach materials (posters, flyers, magnets, etc.) will not help prevent stormwater pollution if the target audience does not receive, read, and understand them. Common distribution mechanisms include direct mail, door-to-door distribution, telephone, targeted businesses, presentations, handouts at events, media outlets, and messages posted in public places. Deciding how to distribute materials involves a close look at the level of time, resources, and work required. For example, if posters with a stormwater message are to be printed, several things need to be decided: Should the posters be mailed to a specific audience? Should mailing tubes be purchased? Are addresses available?

Outreach and education can be implemented in several ways. It is not always necessary that the entire audience be reached at once. Therefore, one or more of the following approaches might be useful.

Signage and Storm Drain Stenciling

This procedure has been successful in many parts of the country. The idea is to remind the public of the function of storm drain appurtenances to prevent their misuse.

Mail

The mail delivery system can be the best distribution vehicle if the target audience can be defined geographically or if a mailing list that encompasses the entire audience (e.g., landscapers, farmers, garages) is accessible. The U.S. Postal Service has established procedures for bulk mailings, and it is advisable to contact the post office early to discuss the pros and cons of this delivery approach. In addition, lightweight flyers and brochures can be added to general mailings, such as utility bills or notices

about municipal services, without raising the cost of postage.

Door to Door

Door-to-door canvassing is very effective, but it is resource-intensive if employees are required to deliver the items. If it is too difficult or expensive to send employees door-to-door, it might be possible to work with local scout troops, environmental groups, or other organizations that are willing to canvass or deliver the message. A recommended approach is to print door hangers with the message that can be distributed without disturbing the occupants.

Businesses, Organizations, and Public Places

Using selected businesses and organizations to deliver the message can increase the likelihood of reaching the target audience and save money on postage. For example, if a brochure or poster on oil recycling is printed, the brochure/poster could be displayed at auto parts supply outlets. Lawn and garden centers could display an alternative lawn care poster. Businesses will be more likely to distribute materials if there is an added benefit to them. "Green company" endorsements could be included on the posters. Septic tank pumpers could be asked to distribute refrigerator magnets containing information on proper septic tank care and include a space on the magnet for the customer to write down the pumper's name and phone number. Schools and local organizations with building space are good candidates for the display of materials, especially posters.

Presentations

Presenting the message directly can be a very effective way to reach the target audience. The audience should be allowed the opportunity to ask questions, and any questions should be responded to immediately. Presentations can be given at events tailored to the audience, such as schools, retirement homes, local clubs, libraries, businesses, and associations.

Conferences

Conferences can be an excellent way to distribute messages through presentations, promotional give-aways, and displays. However, a conference might not reach all of the intended audience, and those who attend might already be familiar with the message and its significance.

Media

Messages that are recorded either in audio or video can be played on local radio or cable stations, particularly if they are required to make public services announcements. Sometimes the easiest way to distribute a message is to have someone else do it. If the target audience subscribes to an existing periodical, it might be more effective to include the message in that publication. It will certainly save time, instead of dealing with mailing lists, postage costs, or news media releases. It also increases the likelihood that the message will actually be read by members of the target audience since they are already familiar with the publication. Brochures and flyers can also be displayed in local libraries and other public buildings.

Internet

An internet website is a good way of educating the public because an unlimited amount of information can be displayed there. In addition, the website can be interactive, allowing a more hands-on approach to learning than other forms of media. Drawbacks include advertising and construction of the website.

The effectiveness of distributing storm water materials depends on many factors. These include:

- The costs associated with designing, producing, and distributing materials
- The type of audience to receive the message and what the audience does with the materials.
- The quality of the materials also plays a role in the message's effectiveness. It is important that a brochure be carefully prepared to ensure that it is actually read. Another approach is to convey a message in a simple form, such as a magnet. A magnet posted on a refrigerator at home is likely to be more effective than a flyer that is wordy or complicated.
- Benefits to using storm water outreach material are that they can reach a large audience. If the slogans, graphics, and other aspects of the materials are catchy, the messages will be even more effective.

Next, there needs to be input gathered from the stakeholders and public on the following:

- Desired stormwater management program direction, activities and structure
- Existing stormwater problems and future needs
- Willingness to pay for the program.

Once the public input is compiled, the stakeholders and public must be involved in the development of the program through:

- Meetings with stakeholders and other groups
- The use of public hearings
- A citizen task force
- The use of special events.

Through the public input and involvement, it is then necessary to gain a general consensus for the proposed stormwater management plan and program as well as the

creation of a stormwater utility. Once the stormwater plan is implemented, the public education program needs to be monitored in the following ways:

- Monitoring all forms of media to keep track of public opinion
- Obtain feedback through a hotline and/or all public events
- Measuring the public acceptance of the overall program.

Stormwater quality can be greatly improved by simply educating the public on issues such as the fact that water or any other fluid or item that enters the storm sewer system via culverts, catch basins, etc., typically does not get treated before discharging into the same stream, river or lake that they rely on for recreation, and/or water supply. In addition, explaining that litter and debris can clog drainage systems and accelerate flooding, can lead to reduction in property damage and potential loss of life associated with urban flooding. In regard to water quantity, educating developers on the adverse effects of impervious areas (especially directly connected impervious areas) and the numerous benefits of green space, trees, porous pavement, infiltration, etc. can lead to the reduction of peak runoff rates and volumes.

Limitations

Limitations to outreach materials are mainly associated with the time and cost of making and distributing the materials. Other barriers are the types of audiences to reach; for example, various age groups might need to be addressed separately.

The cost of distributing storm water messages depends on the method used and what is to be distributed. The U.S. Postal Service bulk mail has specific requirements, but discounted unit costs. Going door-to-door can be labor-intensive and requires staff or volunteers and transportation. Using businesses to distribute the message can be very effective and requires virtually no distribution cost. Electronic presentations (e.g., in Microsoft PowerPoint) can be a less expensive way to present information if computers and projectors are available for use or loan. Presentations can be costly, depending on the materials. Flip charts and posters can cost \$5.00 each or more. Producing 35-mm slides (from slide film or computer disc) costs approximately \$4.00 per slide.

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