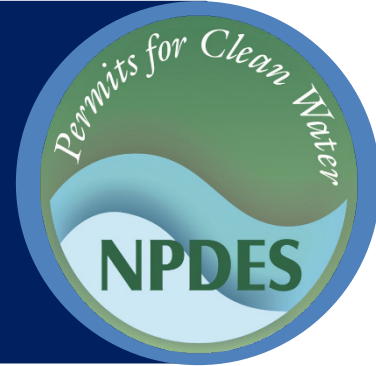




Stormwater Best Management Practice

Illegal Dumping Control



Minimum Measure: Illicit Discharge Detection and Elimination
Subcategory: Trash and Illegal Dumping

Description

Illegal dumping is the disposal of waste in an unpermitted area, such as in the back of a yard, along a stream bank, in an alley, in a public right-of-way or at some other off-road area. Pouring liquid wastes or disposing of trash down storm drains is a form of illegal dumping that can also qualify as an illicit discharge.

Because illegal dumping often happens in open areas along roadsides, late at night, other names for it are “open dumping,” “fly dumping” and “midnight dumping.” People often dump waste illegally to avoid paying disposal fees or to avoid expending the time and effort required for proper disposal.

Applicability

Illegal dumping occurs nationwide in both urban and rural areas. Therefore, illegal dumping can occur and pose impacts in all states and communities. Illegal dumping in unpermitted areas and down storm drains can impair water quality. In Oregon’s Willamette Valley, one study found that the most common illegally dumped items were tires, refrigerators and other heavy objects (Neff et al., 2004). Stormwater from dumpsites can contain chemicals that contaminate wells and surface water beyond water quality standards for their designated uses (e.g., drinking water, recreation). Substances disposed of directly into storm drains can also impair water quality and lead to Clean Water Act violations. In systems that flow directly to waterbodies (i.e., storm sewers), illegal disposal introduces untreated substances to the natural environment.

Simply increasing bulk trash service does not necessarily solve the problem. For example, the City and County of Sacramento estimate that illegal dumping incidences in 2018 increased 32 percent, despite a 40 percent increase in bulk item collection services (SRSWA, 2018). Communities often need to find comprehensive solutions.



Illegal dumping is hard to control. The use of signs in areas of reoccurring illegal dumping can help discourage the practice.

Credit: Michael Pereckas/Flickr

Implementation

Illegal dumping programs can operate at the local, state or federal level. Critical components of these programs include public education, active enforcement and an easy mechanism for public reporting of violations.

Storm drain marking or stenciling is an effective method to raise public awareness of the effects of stormwater on water quality. Stenciling neighborhood storm drains helps all neighbors realize that throwing their trash down the storm drain could negatively affect their local river. It also reminds car owners not to dump their motor oil down the drain. Stenciling is quick, easy, fun and impactful; any local group can start a storm drain stenciling program. Groups such as the scout troops, school classes and neighborhood associations have created these local programs.

Communities can prohibit illegal dumping through ordinances and regulations. Ordinances and regulations are only effective when enforced, and the perception of an enforcement action can deter potential illegal dumpers. EPA has the authority to assess fines on a daily basis per violation and/or jail time for illegal

dumping that results in a discharge to a waterbody. As part of a robust enforcement program, municipalities can proactively monitor areas and roads that have a history of illegal dumping or trash disposal. Municipalities and states looking to establish illegal dumping programs should look to already established programs, such as the following:

- **Hunting Park, California.** The City of Huntington Park established an [ordinance](#) in 2012 that holds property owners solely responsible for the accumulation of any trash or bulky items. Additionally, an urban [illegal dumping campaign](#) educates the public and holds bulky item collection events.
- **Imperial County, California.** In 2007, Imperial County Public Health Department developed an [illegal dumping prevention plan and draft ordinance](#), weaving together a patchwork of existing state and local ordinances.

For public reporting, programs can establish a [community hotline](#) using a telephone number, Web page or social media platforms. For a local-level example, Dallas County, Texas, established a 24-hour [hotline](#) for citizens to report illegal dumping. The hotline asks citizens to leave as much information as possible, including the city and county of the incident, specific street location, license plate number and description of the vehicle, personal description of the violator, type of waste dumped, caller's name and telephone number, and date of the violation. Similarly, Berkeley County, South Carolina, has a [citizen complaint form](#) on its Web page, where citizens can provide specific information about an incident.

At the federal level, EPA has established a 24-hour national response hotline (1-800-424-8802) for citizens to report all oil, chemical, radiological, biological and etiological discharges into the environment anywhere in the United States. While receiving a report is the first step, program administrators should ensure that someone follows up on these reports and that the reporter receives a notice of the results. Otherwise, the community may feel that reporting is not beneficial and stop participating.

Effectiveness

The effectiveness of an education and outreach program is hard to measure in terms of incidents and dollars spent. However, a 2017 Texans for Clean Water study comparing the cost of litter and illegal dumping in nine cities across Texas showed some correlation. Cities that spent less on education and outreach paid a proportionately higher amount in abatement costs (Texans for Clean Water, 2017). Even when free bulky item collection services are in place, residents may underutilize them due to infrequent service or a lack of awareness. For example, only 15 percent of residents in the City of Sacramento and 23 percent of residents in the County of Sacramento used bulky item collection services (SRSWA, 2018).

Limitations

Public awareness and participation are often the limiting factor for a successful program. As such, it is important to make reporting easy and as readily accessible to the public as possible. State and local agencies can make reporting easier by offering the public multiple options, including hotlines, email and social media accounts. Communities also need to do their part in taking action to follow up and address activities reported by citizens.

Cost Considerations

Costs for implementing illegal dumping programs vary. A Texans for Clean Water study found that across nine cities in Texas, the majority of money (51.7 percent) spent on managing litter and illegal dumping went to direct abatement costs, and only an average of 3.3 percent went to education and outreach (Texans for Clean Water, 2017).

The cost of enforcement will likely be higher than the fines collected, and fine collection alone likely cannot fund an enforcement and education campaign. However, this should not be a deterrent for pursuing enforcement against businesses or individuals engaging in illegal dumping.

Money spent on outreach to raise awareness of illegal dumping and increase incident reporting varies widely across the country. For example, the City of Sacramento

spends \$40,000 each year on a litter and illegal dumping education and outreach campaign; in contrast, the City of Fort Worth spends nearly \$900,000 each year on a similar campaign (SRSWA, 2018). Inventories often show that illegally dumped items are typically large or perceived as difficult or expensive to dispose of by residents. The City and County of Sacramento found that cleaning up an illegally dumped bulky item cost

nearly twice as much as providing a bulk item pickup service to residents. This price difference was even greater when the cost of enforcement was added in for the illegally dumped items (SRSWA, 2018). So, while the cost of providing free bulk item disposal to residents may seem ineffective, cost savings on illegal dumping abatement may be significant.

Additional Information

Additional information on related practices and the Phase II MS4 program can be found at EPA's National Menu of Best Management Practices (BMPs) for Stormwater website

References

- Neff, M., Eicke, C., Webb, B., Laxton, J., & Erickson, S. (2004). *Illegal dumping in the Middle Fork of the Willamette*.
- Sacramento Regional Solid Waste Authority (SRSWA). (2018). *Area-wide illegal dumping analysis for City of Sacramento and County of Sacramento recommendation report*.
- Texans for Clean Water. (2017). *The cost of litter & illegal dumping in Texas*.

Disclaimer

This fact sheet is intended to be used for informational purposes only. These examples and references are not intended to be comprehensive and do not preclude the use of other technically sound practices. State or local requirements may apply.