Waste Management Technologies in Regions Program

Illegal Dumpsites Closure Guideline

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Prepared for:
Mission Environmental Office
Economic Growth Office
USAID Caucasus
Prepared by:
International City/County Management Association 777 North Capitol Street NE, Suite 500
Washington, DC 20002-4201
Caucasus Environmental NGO Network (CENN)
27, Betlemi str., 0105, Tbilisi, Georgia
The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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Introduction

The managing of solid waste is one of the most challenging tasks for governments worldwide. Landfills are an essential part of any integrated solid waste management (ISWM) system. Even the most efficient waste reduction, recycling, compost, or waste-to-energy program will leave some residuals that require disposal. Combating illegal dumping is a key priority for national and especially local governments in many countries, including Georgia.

It is estimated that there is currently approximately 98,995,672 tons of illegally dumped waste world-wide¹. Regardless of where the illegal dumping occurs, it can have negative effects on the environment and human health.

Illegal waste dumping generally occurs near water bodies, gorges, wooded areas, and along roadsides. Other common places of illegal dumping are vacant or private properties including abandoned industrial, commercial or residential sites.

Since each municipality or town in Georgia has at least one open dumpsite (or shares one with its neighbours), these illegal waste disposal sites are one of the largest sources of potential pollution within the communities hosting them.

The disposal of solid wastes on land can be generally categorized into three types including: open illegal dumpsites, controlled dumps, or sanitary landfills. Open dumpsites entail the lowest development and operational cost of the three types of waste disposal sites, and therefore, are the most prevalent, especially in those countries where financial resources for waste management are limited. Open dumpsites also pose a major threat to public health and the environment.

This document is intended to provide local authorities with the basic knowledge and understanding of what is required to close informal dumpsites within their jurisdictions and minimize the environmental damage associated with these sites. This guideline does not apply to controlled dumps, or sanitary landfills.

What is illegal dumping?

Illegal dumping is the unlawful disposal of household waste including old appliances and furniture, as well as commercial and industrial wastes at locations other than facilities permitted for waste disposal such as sanitary landfills. These locations can include dumping along rivers and other water bodies, in gorges, on vacant lots, on public and private lands, and at other normally unattended locations.

Illegal dumping can include materials ranging from small bags of rubbish or household waste in urban locations to larger scale dumping of materials such as construction and demolition waste in more isolated areas. This latter waste may also include dangerous substances such as asbestos.

¹ A Comprehensive Assessment of Illegal Waste Dumping By Elizabeth Hanfman.

All kinds of waste are illegally dumped in Georgia with household waste being the most prevalent. Illegally dumped bulky wastes include household whitegoods (such as refrigerators and washing machines) as well as furniture and mattresses. Other illegally dumped waste can include garden waste, car bodies, tyres, building and demolition waste, animal carcasses and vehicle parts. Certain waste types can cause more environmental or aesthetic problems than others.

The visual characteristics of illegal dumping sites are typically:

Engineering	Planning
 Widely spread uncovered waste No recording or inspection of incoming waste No control of waste placement No compaction of waste No application of cover soil, or minimal cover Leachate unmanaged and released to the surrounding environment Open fires and/or waste periodically set on fire 	 Unorganized scavenging at site No security Uncontrolled waste management practice Free service Opposition from neighbours Vermin, dogs, birds and other vectors often prevalent

Why is illegal dumping a problem?

Illegal dumps diminish the quality of life and liveability of the surrounding area. Illegal dumping of garbage, discarded appliances, old barrels, used tires, furniture, yard debris, oil, antifreeze and pesticides can threaten human health, wildlife and the environment. Illegal dumps can pollute local water bodies and groundwater, or cause injury to children playing in or around the dump sites. Tires retaining water become breeding grounds for mosquitoes and other noxious insects. Some dumps become home to rodents. As a result, illegal dumps usually depress the value of surrounding land and neighbourhoods.

The impact of open dumps depend on a number of site-specific factors. The most important factors include the site's location, nearby water bodies, geological/hydrogeological and climatic conditions, as well as solid waste composition and quantity, the physical extent of the operation and the age of the dumpsite.

The following are the most important potential impacts of open dumping on the environment and on public safety and health.

Surface and groundwater contamination - Contamination of water may occur when leachate from the dump, via flow paths (on or under the surface), reaches groundwater or surface water. Waste is sometimes deposited directly into water at dumpsites resulting in the direct physical and chemical contamination of surface water.

Soil contamination - Many contaminants (especially heavy metals) are trapped in the soil beneath dumpsites, resulting in a risk of long term environmental contamination which may restrict potential after use of the site.

Air pollution - Landfilled organic waste may contribute to the greenhouse effect via emissions of methane. Other types of gas emissions may also contribute to degrading the ozone layer and/or may be toxic to humans (especially scavengers or any local populations living or working near the illegal disposal locations). Uncontrolled burning of solid waste (particularly certain types of plastics) releases smoke and gaseous contaminants into the air. The smoke commonly contains particulates, carbon monoxide and other contaminant gases including low levels of dioxins, all of which can be hazardous to human health. In some cases, odour and direct hazards may occur because of the generation of hydrogen sulphide due to disposal of certain types of waste and the development of anaerobic conditions in the waste mass.

Fauna - Fauna in and around dumpsites may be impacted either through direct consumption of the solid waste, by consumption of contaminated plants and/or animals by humans, or as a result of leachate effects on groundwater and surface water.

Flora - Plants near illegal open dumpsites can be impacted directly by the waste, dust or smoke from burning. Dumps tend to affect the type and number of plants in the surrounding area and the presence of dead vegetation is often observed within the zone of direct impact around dumpsites. Dead vegetation is normally a result of trampling by foot, vehicle or animals, but may also be the result of direct contamination by waste or leachate, the migration of landfill gas, or as a result of burning or smoke effects.

In addition to the above, the most common impacts on public health and safety include the following:

Open burning of solid waste - The smoke from burning solid waste can result in respiratory issues, dizziness, and headaches in the short-term, as well as potentially more serious diseases such as cancers and heart disease in the long term.

Contaminants in soil and water - Direct or indirect contact with polluted soil or water by neighbouring water users can cause health consequences. Additionally, because of their locations, recovered lands may be cultivated (for vegetables by urban dwellers) which may lead to bioaccumulation of metals which can constitute a long term health risk.

Infectious Diseases - One of the primary health risks of illegal dumps is the potential spreading of diseases (diarrhoea, hepatitis etc.). The pathways by which infection can be spread are numerous, but are often related to direct contact with the waste (e.g., infectious clinical waste, faecal matter) by scavengers and other unauthorised persons at the site. Another critical pathway is by contact with rats, birds, flies and mosquitoes etc.

Aside from the health and environmental impacts, open dumpsites can have serious negative aesthetic impacts on property values of the site and adjacent properties. The pride of nearby community areas can also be affected by the stigma attached to being near an open dumpsite.

What factors contribute to illegal dumping?

Illegal dumping is carried out by all types of people in a community, including householders, businesses and other organisations. Understanding the reasons why individuals and businesses illegally dump waste will drive the development of effective strategies to combat the practice.

Depending on the type of waste illegally dumped, there are different recurring reasons that motivate illegal dumpers. These are:

- failure to provide an effective and reliable waste collection service to all waste generators under the jurisdiction of a local government;
- lack of convenient and legal alternatives to the presence of convenient illegal disposal sites;
- an unwillingness to pay for disposal at formal disposal locations;
- an uncaring attitude and lack of public awareness about the issue;
- lack of understanding of environmental laws, and poor enforcement of those laws or low fines.

Addressing these illegal dumping motivations is very important for developing an effective prevention program that deals with the root causes (rather than the results) of illegal dumping.

Closure of illegal dumpsites

The manner by which an existing illegal open dumpsite is closed is a function of its overall physical characteristics and the way that it has been historically used for solid waste disposal. Evaluation of an existing dumpsite closure should include the identification of any specific environmental issues that may have to be addressed through effective closure planning and design. Some of these closure processes may require ongoing monitoring activities after the facility has been formally closed.

The illegal open dumpsite to be closed should be surveyed to determine the extent of the area requiring closure. This survey may help to determine if it is practical to consolidate and cover the solid waste that has been placed in the disposal area so as to reduce overall closure cost as well as to determine if the simplest approach for a small dumping site is simply to remove the accumulated waste and transport it to a landfill.

The intended land-use after closure is also very important in defining closure design. For example, in some industrialized countries, closed landfill sites have been converted to other active uses. This has required that the closure design be sufficient to prevent any health and safety effects for the people who will use the site after it has been closed and other active land uses have been developed. If the site is not to be used and is to remain idle, it should be, at a minimum, covered, stabilized, and isolated through fencing that will keep people and animals away from the disposal site after it has been closed.

There are many potential problems related to the closing of open dumps. When a decision has been made to close a dumpsite, several key questions typically arise including what closure method to use, who is going to pay for the closure process, and what new waste disposal method will be used instead of the

illegal dump and how to ensure cleanliness and discontinued use of the illegal dump area after it has been closed.

Different approaches exist for effectively closing open dumps. If a local/national regulation and a solid waste management plan exist, some guidance for the closure process may exist. However, at this stage it is most likely that such guidance does not exist in Georgia, thus this document could be used as a guidance while working on closure of the illegal open dumpsites.

Closing an illegal open dumpsite is not solely the role of local governments. It should be a coordinated effort that involves the participation of the national government, as well as the local community where the disposal site is located, since they are the ones who are and will be directly affected by the consequences of its existence. The matrix below identifies the potential responsibilities of the various stakeholders in dealing with the closure of illegal dumping sites.

Responsibilities of Stakeholders in Illegal Dumpsite Closure

Stakeholder	Responsibility/Concern
Local Governmental structures	 Creating inventories that identify and characterize illegal dump sites Development and implementation of the actual closure of illegal dumpsite Coordination with relevant local and national entities to implement closure Implementation and other necessary activities/plans to facilitate and effect closure
Public/Community	 Participation in the planning for the closure of the illegal dumpsite Participation in monitoring these illegal dumpsites after closure to prevent use
National Government	 Through the Ministry of Environment and Natural Resources Protection of Georgia, formulate the necessary policies, standards, criteria and guidelines relative to closure of illegal dumpsites Coordination with relevant local and national entities to implement closure of open dumpsites Monitoring (and may even supervise) the closure of these illegal dumpsites Extension of necessary technical and other allowable and viable forms of assistance to local governmental bodies Opening of new formal disposal sites
Private Sector	 Supporting closure of illegal open dumpsites Introduction of recycling programmes at the new sites Introduction of appropriate technologies, services, and equipment for landfill closure

The following general approach may be utilized in closing illegal dumps:

- 1. Identify and characterize the illegal dump sites in each municipality
- 2. Investigate impacts
- 3. Reduce risks utilizing no-cost to medium cost options
- 4. Develop a workable illegal dumping prevention strategy
- 5. Secure dump user commitment (using consultation and enforcement of litter regulations)
- 6. Choose a closure method using a risk-based assessment
- 7. Choose and implement a new waste disposal method

- 8. Draft a written closure plan
- 9. Inform, train and educate users
- 10. Implement the dumping prevention strategy
- 11. Close the open dump
- 12. Monitor after closure process

The following questions should be addressed in planning the closure process in a uniform and consistent manner.

Condition of Site How much area (m²) does the landfill cover? What type of land does the dumpsite include (Wetland, Quarry, Slope, or Plain)?	Age For how many years has the dump site been in "operation"?	Accessibility Is the site close to a paved road? Is it possible to access the site with heavy equipment such as front loaders, and Trucks?
Volume How much waste (m³) does the dump site include?	Situation Where is the illegal dumpsite situated? Distance to: • Springs, rivers, lakes, ponds, other water bodies, • Nature protected areas, • Residential areas, • Agriculture land and • Industrial zones.	Content What type of waste was disposed at the dumpsite? How much of this waste is biodegradable? Does the accumulated material include: • hazardous content such as asphalt and chemicals • Construction and demolition waste • Litter, (plastic-bags, bottles, etc.) Is there evidence of existing or past fires at the site?

Risks

The illegal dumpsite should be classified based on the environmental risks associated with the site. This classification is divided into four risk categories:

- Low risk,
- Medium risk, mainly due to the waste
- Medium risk, mainly due to the surroundings and location of the site
- High risk.

The criteria for this classification is as follows:

Level of Risk	Significances
	 No residences or residential areas nearby;

Low Risk	 Neighbouring fields are not used for grazing or agriculture; The site is not intended to be used for agricultural, dwelling or industrial purposes; No water, lakes, rivers, or creeks nearby; The site is not flooded during rain events or while snow is melting; Waste at the site consists only of household waste and demolition waste and does not include materials such as industrial waste, obsolete pesticides, asphalt or wrecked vehicles.
Medium risk mainly due to the waste	 No dwelling or residential areas nearby; Neighbouring fields are not used for grazing or agriculture; The site is not intended to be used for agricultural, residential or industrial purposes; No water, lakes, rivers, or creeks nearby; The site is not flooded during rain events or while snow is melting; Waste disposed includes materials such as industrial waste, obsolete pesticides, asphalt or wrecked vehicles.
Medium risk mainly due to the surroundings	 Dwelling Houses nearby; Neighbouring fields are used for grazing or agriculture; The site is not intended to be used for agricultural, residential or industrial purposes; There is water, lakes, rivers, or creeks nearby; The site may by flooded during rain events or while snow is melting; Waste at the site consists only of household waste and demolition waste and does not include materials such as industrial waste, obsolete pesticides, asphalt or wrecked vehicles.
High Risk	 Residences or residential areas nearby; Neighbouring fields are used for grazing or agriculture; The site is intended to be used for agricultural, residential or industrial purposes; There is water, lakes, rivers, or creeks nearby; The site may by flooded during rain events or while snow is melting; Waste disposed includes materials such as industrial waste, obsolete pesticides, asphalt or wrecked vehicles.

Once the site has been defined and classified, there are two approaches to close an illegal dump including:

- Closure by removing the waste from the site;
- Closure by covering and isolating the waste.

The method selected should always be the simplest approach that properly addresses the environmental and other risks associated with the site.

Identify the correct closing activity

Dumpsi	te Environmental Risks	Small	Medium
Low		Closure by removing the waste from the site	Closure by removing the waste from the site
Medium	Main risk due to the Waste	Closure by removing the waste from the site	Evaluation before closing by covering the waste
ivieululli	Main risk due to the Surroundings	Closure by removing the waste from the site	Closure by removing the waste from the site
High		Closure by removing the waste from the site	Environmental evaluation before defining an action plan

Closure by removing the waste from the site

Illegal open dumpsites where this closure approach is utilized must be excavated and the waste transported to another appropriate site. This does not necessarily mean that the waste must be disposed at a sanitary landfill but the excavated waste could also be transported to another noncompliant dumpsite that is going to be closed and sealed. The transported waste could be utilized for shaping purposes at the destination landfill before cover application. The removal of waste may be combined with a sorting process for recovery of recyclables. Any odour issues that may occur as a result of the excavation process will need to be appropriately managed. After transportation of excavated waste, the site undergoing closure should be cleaned up and graded.

After excavation and transportation, the site should be cleaned up and new topsoil should be placed over the excavated area followed by the seeding for surface stabilization.

Clean-up methods

Community Cleaning Activities – Volunteers - One option that is often used when there is limited funding available to clean up and closing of illegal dumpsites is the use of volunteers for clean-up activities. While this is a low cost method, it also requires a greater degree of preparation by the local government in planning the clean-up event. This preparatory work can include issuance of announcements, coordination of the volunteers, soliciting businesses to contribute tools and equipment, etc. When working with volunteers, it is critical to emphasize safety requirements for their activities. It is important that the volunteers are aware of the proper procedures for handling the solid waste that they come into contact with. This is particularly important if they discover what appears to be potentially hazardous waste (gallon drums, containers filled with liquids, etc.) where they are instructed that they are not to handle such items but immediately report them to the activity supervisor. Volunteers should understand that they should not try to collect any materials that could potentially place them in a harmful situation or cause injury. For example, volunteers should not try to collect heavy items or dangerous materials such as sharp metal or

broken glass. Sources for volunteer labor can often be obtained from youth or civic organizations, as well as environmental groups located within the community. Required equipment (bags, rakes, gloves, shovels, etc.) can usually be borrowed from the local government or individuals can bring their own tools. Activity organizers should make sure that appropriate personal protective equipment (gloves, etc.) are available for all volunteers and that they are used throughout the activity.

Funding for the disposal of the excavated waste materials can usually be obtained either from the local government or through business donations. Often, a local legal landfill or transfer station will provide a one-day exemption from tipping fees for all waste resulting from the "clean-up day".

Local Government Crews Conduct Clean-ups - The most common method of addressing illegal dumpsites is the use of a local government's personnel and equipment. Staff of different departments of local governmental structures could be used for illegal dumpsite clean-ups. If the local government is going to have its own personnel clean up illegal dumpsites, it is imperative that the local government either dedicate crews for this task or at least designate individuals who are assigned on a part-time basis to clean up the illegal dumpsites.

In order to make this activity effective, the local government must make the financial commitment necessary to sustain the process and assign personnel to be responsible for the clean-up of the illegal dumpsites. The clean-up of these sites needs to be a priority, rather than something to do when the local government employees have "nothing else to do."

Clean-ups mandated by enforcement of littering legislation - A common practise in dealing with illegal dumping is to have the people caught illegally dumping (in addition to paying a fine) also serve a number of "community service" hours cleaning up illegal dumpsites.

Closing by covering the waste

This method allows the accumulated solid waste to remain at the site and covered with soil which is revegetated to prevent erosion. The soil utilized for this purpose should minimize the penetration of rainwater into the solid waste accumulation while also having the proper characteristics to support erosion inhibiting vegetation. Before covering the waste with soil, it may be necessary to shape the waste accumulation at the site and compact it.

Illegal open dumpsites where this method is utilized must be investigated before making a final decision on how to close the site. This method should be applied to large illegal dumpsite when excavation and transport of the accumulated waste to another legal landfill or transfer station is not practical because of the volume of waste at the site.

The main questions to ask in preparing to utilize this in-place method of closure include, at a minimum:

- Is there something contained in the waste accumulation that creates high environmental risks?
- What is the effect of the dumpsite on water including groundwater and surface water?
- Does the waste generate any gas that will require gas vents as a component of the closure cover application?

The function of the cover layer is to:

- Reduce waste exposure to wind and vectors;
- Prevent people and animals from scavenging;
- Control odours;
- Minimise the risk of fires;
- Stop people from using the site;
- Minimize and control infiltration of rainwater/surface water;
- Control migration of landfill gas;
- Serve as growth medium for vegetation;
- Support suitable post-closure activities.

The ability of the cover layer to limit infiltration of water into the dump is an essential environmental protection measure. This is achieved through a suitable combination of cover soil type, thickness, slope and vegetation. In other than very arid conditions, a clay cover layer is best suited since it minimises rainwater infiltration and the resulting leachate production, and controls landfill gas migration and odour. The durability of the soil cover and the degree of resistance that the cover offers to infiltration are important design considerations. What constitutes a suitable cover design is site specific and depends on the climate, locally available soil materials and plant types, the extent of protection necessary for managing risk and protecting the local aquifer and surface water systems, etc.

Dealing with hazardous waste and other dangerous materials

When dealing with illegal open dumps, local governmental structures involved in closing illegal dumps will frequently come into contact with unidentified materials that could be hazardous waste or other materials with dangerous properties such as asbestos. The illegal dumping of hazardous wastes is an important problem because of its potential environmental impact and because of the cost to properly dispose of such materials. Only properly trained professionals should handle any hazardous materials discovered during a closure process that could potentially pose a significant threat to human health and safety.

Development of illegal dumping prevention program

A common problem in undertaking illegal dumpsite closures is the difficulty in preventing the use of the illegal sites after closure. It is impossible to properly close a site that continues to be used as a dump site. This has to be addressed by providing a new convenient means for waste generators to dispose of their waste. This will enable closure of the old site in parallel to informing, training and educating waste generators and site users as to the new means of solid waste management. Furthermore, it is essential to close off access to the closed dumpsite and effectively enforce the prevention of continued disposal at the closed site.

Educating community members about waste reduction, recycling, and proper waste disposal can help limit future illegal dumping. To control and discontinue illegal dumping, the following activities may be implemented:

- A public awareness programme may be conducted to inform and encourage the public and private
 haulers to use the new waste management means. At the same time, steps can be taken to ensure
 that illegal dumping is prevented such as signage, monitoring and the enforcement of penalties;
 and
- A temporary/permanent facility or transfer station may be provided at the site to be closed to
 accept waste from the waste generator that previously used the site for disposal. These collected
 wastes may then be transferred by the local government to the new or alternative disposal
 location. The service may be provided for free to the general public generating residential waste
 while commercial or industrial waste generators should be obliged to transport their own wastes
 to the new disposal location.

To design and implement an effective illegal dumpsite use prevention program, it is important to:

- Understand why people and/or industries illegally dump waste;
- Identify the context in which waste is illegally dumped, that is, who, what, where, why and how;
- Identify ways in which the context provides opportunities for illegal dumping of waste;
- Understand and identify the viable alternatives to use of the illegal dumpsite.

To be effective, the illegal dumping prevention program should:

- <u>Make dumping harder</u> In most cases, illegal dumping takes very little effort. It can often take
 more effort to do the right thing than to dump waste illegally. Local governmental structures can
 make access to dumping hot spots difficult by using security infrastructure such as lighting,
 barriers or landscape type barriers such as hedgerows, etc.;
- Reduce provocations by making legal disposal easier Householders are more likely to be
 motivated to utilize illegal dump sites if they perceive that a waste collection service is not
 efficient or convenient. Individuals may also feel provoked to illegally dump in areas that are not
 aesthetically pleasing (for example, where other dumping is present), and they may feel their
 dumped waste won't make a difference in the conditions of the site. Local councils can curtail
 illegal dumping in their local government areas by enhancing and expanding waste collection
 service;
- Remove dumping excuses by educating and informing the community People who dump may find it easy to rationalise and find excuses for their behaviour. These excuses can be removed through targeted education, advertising waste collection and disposal services, keeping areas free of waste and displaying signs at known illegal dumping hot spots. Information is important to make householders and business aware of their responsibilities when it comes to proper waste disposal. It is also important that waste generators are advised of the consequences of their continued dumping including fines, etc.

Local authorities should provide information regarding what waste services are available and how to use them. In order to prevent illegal dumping, signs should be posted at potential dumping areas so residents are aware that dumping is illegal and punishable by significant fines or prosecution. In addition, there should be adequate lighting and barriers that prevent access and the areas should be landscaped. Enforcement of litter laws is important in preventing or deterring illegal dumping. Laws related to illegal dumping should be easy for the public to understand and the fines (and enforcement) associated with illegal dumping should be sufficient to deter continued dumping. It is possible that requiring responsible

waste dumpers to clean up the site rather than or in addition to pay a fine could have a significant effect on preventing future dumping.

Once a site is cleaned up, it is important that the local government keep these sites free of new illegally dumped materials. Obviously, for rural areas, it is often difficult to accomplish this because of the extensive number of locations in rural areas where waste can be dumped illegally. However, there are certain actions that local governments can take in an effort to eliminate the amount of illegal dumping that occurs in the rural areas and to keep previous dumping sites clean. These actions can include the following:

Education - One problem that always occurs is the difficulty in overcoming old dumping habits and introducing new and proper behaviours. To overcome this difficulty, it is very important to provide information and education to waste generators and site users on the harm of illegal dumping and on the enforcement consequence of continuing the dumping practice. In any solid waste related educational process, emphasis should be placed on the involvement of school students who are often influential in helping to educate their parents.

Posting of signs - Perhaps one of the most effective approaches to preventing continued dumping is to post signs stating "No Dumping Allowed". The signs should also state the amount of fines that illegal dumpers are subject to. Signage should also state where waste may be taken for proper disposal.

Lighting - For those areas that are chronically subject to late night dumping ("midnight dumping"), providing lighting in these areas can be important in reducing the amount of night-time dumping. Effective lighting increases the chances of the illegal dumper being seen and identified (through car license plates, for example). This action to battle illegal dumping may be more cost effective in urban areas versus rural areas due to the costs associated with installing and operating lighting systems.

Barriers - Another important option is to install effective barriers that prevent illegal dumpers from gaining access to the dumpsites. This could include fences and landscape barriers. This could even go so far as fencing off some rural roads on which no one lives and which are currently only used to illegally dump waste.

Surveillance Cameras – Internationally, some local governments have placed video cameras to record acts of illegal dumping. Another similar concept includes providing nearby residents with disposable cameras so they can be used to photograph illegal dumpers.

Legal action against property owners – Legal actions against property owners may be considered for those sites on private property that are chronic illegal dumping sites. Waste dumper payments to a property owner for operating an illegal dump site may be such that a periodic fine is not enough to keep them from allowing illegal dumping to continue on their property. In such situations, more forceful legal action may be required.

Fine Illegal Dumpers - One of the best ways to prevent future illegal dumping is to impose significant fines on those individuals caught illegally dumping. It has been confirmed throughout the world that once an environmental enforcement program gets the reputation for fining illegal dumpers, dumping stops. If any waste is illegally dumped near areas where signs have been posted, it is important that the waste be

picked up as soon as it is identified. If the waste is left, it sends the message that dumping can continue with minimal consequences.