



Construction and Maintenance of Drainage Structures Standard Operating Procedure

WASTE
REDUCTION
& DISPOSAL
DIVISION

Landfill Operations

Proper control of stormwater drainage is critical to maintaining cap and slope integrity throughout our landfills, including active and inactive sites. It is also a requirement of our operating and post closure permits. The following guidelines for construction and maintenance of our drainage structures should ensure we stay in compliance with the regulatory requirements for mitigating stormwater impacts.

Construction of Drainage Structure

1. Construct new drainage devices as required by site plan provided by the Engineering staff.
2. Relocate portable or temporary drainage devices (such as corrugated metal piping) as filling operations change location in order to keep water from running onto filled area.
3. Be aware of any potential drainage problems and take corrective action before problems occur (i.e., notify your supervisor and/or the Landfill Superintendent).

Maintenance of Drainage Devices

1. Routinely inspect all drainage devices and structures. The frequency of inspections is determined by the Engineering staff and is based on past experience with drainage problems at Miramar.
2. During the rainy season, inspect drainage devices that tend to clog easily after all rain events and on a weekly or daily basis. However, structures on fill areas, which are settling slowly, may only require inspection every few weeks.
3. Clean all drainage structures and ditches of all debris as soon as it is found. When unlined channels become silted, routine cleaning is required in order to restore the original capacity of the channels.
4. Repair all cracked or broken structures as damage occurs:
 - During the rainy season, make repairs immediately to prevent further damage to the structure and/or erosion of the soil.
 - During the dry season, accumulate a backlog of repair work so that a full day's work can be scheduled for a repair crew.

Consequence of Non-Compliance to Instruction:

- Progressive damage to slopes and landfill cap
- Violations and fines from Regulatory Agency
- Vector pathways to refuse
- Public complaints from downstream neighbors
- Potential impacts to flora and fauna along stream and bay

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Benefit of Compliance to Instruction:

- Protects the integrity of the landfill cap and slopes
- Inhibits excessive erosion
- Eliminates potential impacts to downstream habitats
- Reduction or elimination of “areas of concern”, violations and fines from regulatory agencies
- Positive public and professional image

Environmental Management System (EMS) –ISO 14001

PROCESS MAP #: SM-1.0

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