Stormwater Trash Separators

In a Nutshell

Stormwater trash separators, also known as gross pollutant traps or hydrodynamic separators, are devices which are used to separate pollutants and trash from stormwater as the flow passes through the device.

The “How To”

Stormwater trash separators are filters which catch stormwater pollution before it is able to enter waterways. They catch most of the litter and silt but are not able to stop chemicals from escaping into the environment. The contents collected from the stormwater must be emptied on a regular basis and sent to a landfill.

Items that are considered to be gross pollutants include:

- Domestic plastics, including plastic bags or clingwrap
- Industrial packaging
- Metals
- Plastic bottles
- Paper products, including cigarette butts
- Sediments
- Organic materials such as grass and garden clippings

Planning & Zoning

Stormwater trash separators are a fairly new technology, and due to this, few ordinances have adopted their use into zoning codes. Of the few codes that do consider the use of these separators, they have tended to be included in codes with other environmental best practices such as bioswales. In the St. Louis region, the Metropolitan Sewer District will not maintain the devices unless they are approved separators.

Dollars & Cents

The cost of a stormwater trash separator varies greatly depending upon the size of the unit and the model. Capital costs for the units range from approximately $4,000 to roughly $300,000. Labor and installation costs can be 50-100% of capital costs.

The City of Los Angeles, California, in 2003 estimated that the cost of 40 units and maintenance for 10 years would cost roughly $30,000,000.

Measuring Success

The success of installing hydrodynamic separators can be easily noticed based on the condition of stormwater as it is being treated. With proper implementation, the stormwater should be free of large suspended solids and

oils. The benefits of the use of these devices can also be seen in the treatment costs of the region utilizing them. If the devices are proving effective, then the treatment costs for the region should decrease.

Discover More

Basic information on hydrodynamic separators can be found here.

Information on the Vortechs Stormwater Treatment hydrodynamic separator information can be found here.