

## **How Does a Landfill Protect the Environment?**

No longer a simple heap of trash or a dump, today's modern landfill is engineered to reduce risk to the environment. It takes years to do the background research on the site characteristics such as depth and direction of underground water. Each lined cell is then designed to keep water that would go through the trash (leachate) from polluting surface or underground water. Special clay soils and synthetic liners are used to construct a liner system under the buried waste. Very thick pipes carry leachate from the liner system to storage tanks. Tanker trucks then transport the leachate to Washington County's wastewater treatment plant where the water is cleaned. In 2005, over 17 million gallons of leachate was collected and treated.

Extensive water testing is done around the site on a monthly basis to assure the landfill operator and the Maryland Department of the Environment that the liner system is not failing. This testing program will continue while the landfill is operating and for at least 30 years after the landfill closes.

Scalehouse and equipment operators monitor the waste being delivered to the landfill to avoid receiving hazardous materials. At the end of the workday, the waste is covered with a layer of soil to reduce litter and to keep animals away. Work crews collect windblown litter on a regular basis.

When the landfill becomes full, millions of dollars will be spent to collect methane gas, continue collecting leachate, and to continue environmental monitoring.