The modern landfill uses a multi-layer liner to ensure that hazards do not leak away from the landfill and into groundwater. As a landfill is being built it is excavated to a specified shape using bulldozers and other heavy equipment. The desired shape is created by laying down one layer at a time. The first layer is commonly a “synthetic” or man-made material with clay embedded in a cotton-like fabric.

These by-products are best avoided by preventing decomposition. To accomplish this, the landfill is designed and operated to be a dry tomb where a discarded newspaper, for instance, will be readable 50 or more years after being buried in a landfill.

Leachate is a liquid which is produced when waste “rots” in a landfill. Leachate is also created when liquids are dumped in the landfill (like old milk, paint or other household products) or when rain or snow falls on a landfill. This moisture or liquid drains down through the waste and begins to decompose. The leachate drains to the bottom of the landfill and is contained and channeled by the liner system.

As it accumulates in a “sump,” the landfill operator must pump the leachate to the surface and collect it for treatment. The most common “treatment” for leachate in NM is simply to collect it in an open pond and let it slowly evaporate.

The compactor achieves two goals. It compresses the waste as tightly as possible to conserve space to allow for more waste. The same process also squeezes all of the air and oxygen out of the waste which prevents the waste from rotting or decomposing.

Landfills also use “cover” at the end of every day to contain the waste and to assist in keeping the waste compacted. Cover is most often just dirt but some landfills use shredded car tires, wood chips or a variety of other alternative materials.