

PROJECT SPOTLIGHT | STORM WATER POLLUTION PREVENTION PLANS - OTTUMWA/WAPELLO COUNTY LANDFILL - OTTUMWA, IOWA



SCOPE OF PROJECT

Recently, the Iowa Department of Natural Resources (IDNR) has focused their landfill inspections on storm water pollution prevention plans (SWPPP), and this had been noticed by staff at the Ottumwa/Wapello County Landfill. In 2007, several excessive rain events caused erosion and sediment problems where they had previously not expected them, nor had they occurred. Subsequent IDNR inspections mandated several actions, including a review of the facilities SWPPP. BARKER LEMAR was retained to review and revise the SWPPP and to provide recommendations for implementation of the SWPPP.

IMPLEMENTATION

BARKER LEMAR reviewed the original SWPPP, which had not been thoroughly reviewed since it was originally prepared. Based on the IDNR's current position, recommendations were made to place specific erosion and sediment control devices at critical points around the facility. Due to the IDNR mandates, a schedule for implementation was also developed that allowed flexibility, considering weather conditions and staffing, while meeting the IDNR mandate.

The recommendations prepared by BARKER LEMAR included both erosion prevention and sediment control, since the key to an effective system is to prevent erosion first and use sediment control as a backup. However, on landfills, the amount of barren soil makes it difficult to prevent erosion in certain areas, such as the working face or active borrow area. Therefore, a combination of approaches ranging from seeding to rolled erosion controls (erosion mat), silt fence to check dams, and terraces to sediment ponds were incorporated into the plan. The recommendations had to function well while being cost-effective and easy to construct/install and maintain.

SERVICES

Surveying; mapping; planning; SWPPP preparation.

TIMELINE

Project Start Date: October 2007

Project Completed: December 2007