

WESTON SOLUTIONS, INC.

# SOLID WASTE MANAGEMENT AND LANDFILL SOLUTIONS

Solid Waste Management  
Landfill Engineering and Construction  
Landfill Operation and Maintenance



*an employee-owned company*

## ► The Challenges of Waste Management



▼ *Rip rap stones are used to control the flow of stormwater down the landfill side slope.*

From recycling programs and source waste reduction, through collection, and on to landfill operations and maintenance, Weston Solutions, Inc. (WESTON®) understands the challenges of solid waste management. With expertise and experience in solid waste management, landfill operation and maintenance, and landfill engineering and construction, WESTON has addressed the needs and provided solutions for numerous clients, at all points along the solid waste stream.

## ► What WESTON Can Do for You

We have provided communities throughout the country with sensible solutions, including establishing an overall program that includes construction, operations, and assessments. Our goals are the same as yours—regulatory compliance, economically feasible solutions, limited liabilities, and minimizing the overall effect on the community.

Our integrated approach can help you:

- Reduce the amount of solid waste generated and sent to local landfills.
- Support environmentally sound management of solid waste.
- Promote fiscally sound practices supported by ongoing planning and performance tracking.
- Save money with our emphasis on innovative technologies. WESTON has saved our clients more than \$150 million through the application of innovative remedial technologies and approaches.

With WESTON, you can expect consistent, milestone-based results. Our staff of remedial experts can identify, assess, design, construct, and implement innovative remedial technologies to cost-effectively achieve cleanup objectives.

## ► Solid Waste Management Services

WESTON can develop and support an Integrated Solid Waste Management Plan (ISWMP) to address all aspects of the solid waste stream. We look at a comprehensive approach that can include source reduction, reuse and recycling, and alternative disposal methods, as well as collection, hauling, and disposal in creating long-term solid waste planning that meets your specific needs.

- To develop an ISWMP for four U.S. Air Force bases, WESTON performed a thorough analysis of existing solid waste streams, including collection and disposal methods, as well as conservation, recovery, and recycling efforts. The resulting plan addressed solid waste stream inventory, current practices, identification of markets and opportunities, alternatives, and recommendations for implementation.
- WESTON provided planning services to a corporation responsible for the management of a state's solid waste. Specifically, WESTON helped develop the plan for a statewide resource recovery system, including waste-to-energy facilities as well as landfills, and also helped develop a solid waste management plan that examined streams that were not part of the systems plan, such as hazardous and infected wastes, with an analysis of current techniques and recommendations for future management.



▼ *WESTON can develop a solid waste management plan that supports environmentally sound management of solid waste and helps reduce the amount of waste sent to local landfills.*

## ► Landfill Engineering and Construction

WESTON can also plan and design or provide consulting services when new landfills are created or old ones are closed, incorporating environmentally sustainable methods to protect the surrounding natural environment. We also have extensive experience in landfill components such as landfill gas (LFG) collection and control systems and can provide engineering services for those as well. When it comes time to put shovel to the ground, you can count on WESTON to construct landfill cells and landfill caps and components—especially gas collection and control systems.

- WESTON was asked to improve a closure plan for a 13-acre former municipal landfill in Massachusetts that included installing an impermeable cap and cover system with a passive venting system. Our solution included numerous value-added features that not only saved the client more than \$100,000 due to materials reuse and recycling, but also provided many “green” solutions.



▼ *Design enhancements and materials reuse led to total project savings of more than \$100,000.*

- When changes in federal air quality control regulations required more stringent controls be placed on LFG emissions, the City of Macon, GA, had to quickly respond to establish a compliance program for the Macon-Walker Swamp Road Landfill. WESTON designed and constructed a new LFG collection and control system that continuously removes explosive LFG. The installation of the control system was enhanced by applying the innovative technique of horizontal directional drilling (HDD) for installation of over 5 miles of buried gas transmission piping. The design also featured WESTON's state-of-the-art wireless remote monitoring system. These innovations allowed for a more rapid installation and reduced construction risks. *This project received the 2006 Innovation Award from the local chapter of the Solid Waste Association of North America.*



▼ *WESTON provided complete LFG collection and control system services at the Macon-Walker Swamp Road Landfill in Macon, GA, including assessment, design, construction, operation, and maintenance.*

- WESTON provided design and construction services for the gas collection and control system for the Merk/Miles Road Landfill in Atlanta, GA, operated by Fulton County. The system restricts off-site migration of LFGs beyond the compliance boundary and removes the primary source of volatile organics to the groundwater as required by the state Environmental Protection Division. The design incorporated active gas extraction wells, the associated laterals and headers to route the gas to a utility flare, and a condensate management system. The county utilizes WESTON's breadth of landfill services, contracting with WESTON to also perform operation and maintenance at this site. The county's expectations were exceeded to such an extent that it issued a proclamation in appreciation for WESTON's services.



▼ *To maintain optimum landfill performance at the Merk/Miles Road Landfill in Fulton County, Georgia, WESTON integrated a wide range of professional environmental disciplines including engineering, hydrogeology, laboratory analysis, project management, and quality assurance.*

**► Landfill Operation and Maintenance Services**

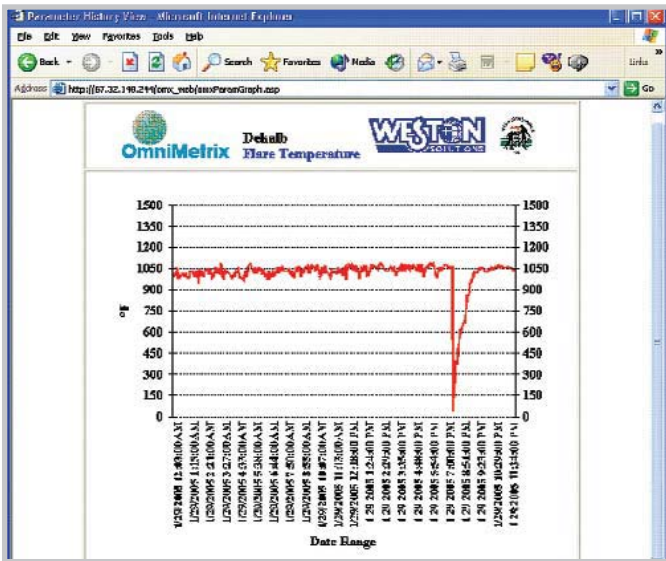
Completing the suite of landfill-related offerings, WESTON can also provide operation and maintenance services for active and closed landfills, including operating and maintaining cells and caps, gas collection and control systems, LFG to energy systems, and the environmental monitoring services required for compliance with state and/or local regulations, such as groundwater or methane monitoring. A leader in applying innovative technology-based solutions to fit our clients' needs, WESTON has developed wireless remote monitoring and communications systems to replace traditional, paper-based monitoring of environmental and meteorological data.

- WESTON installed a wireless remote monitoring system to upgrade the existing flare station's capabilities and shutdown/prevention procedures at the Seminole Road Landfill in Dekalb County, Georgia. The system provides real-time monitoring, data capture, and alarm notification of 23 critical operational parameters, including gas temperature, quality and flow from the wellfield. The remote monitoring system, which also includes battery backup, increased reliability and decreased shutdowns by nearly 300%.



▼ *Gas collection and control systems are designed to integrate with the surrounding environment.*

- At the Morgan Falls Landfill in Atlanta, GA, WESTON monitors the performance of the gas collection and control system. The system consists of extraction wells, header pipes, condensate collection sumps, a condensate knockout tank, a blower, an enclosed flare system, and controls. The system is monitored for several variables to assess the effectiveness of LFG capture. When a golf course was constructed directly atop this 64-acre landfill, WESTON adjusted the design, making the landfill presence transparent to the golf course patrons. Working in cooperation with the driving range and golf course operators, WESTON also performs preventive maintenance on the flare system components.



▼ *With WESTON's remote monitoring system, flare station data are displayed on a secure, password-protected Web site in real time.*



▼ *WESTON performs wellfield balancing of gas collection and control systems.*

**► For More Information, Contact:**

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