

December 2008 Update

Marshall Landfill Superfund Site

Boulder County, Colorado
(5-Year Review Date: 9/29/06)

*H*ighlights Since the 2006 Five-Year Review

- Analytical methods have been revised for ammonia, mercury and silver.
- Surface water points of compliance for Cowdrey drainage clarified.

Brief Site History: Marshall Landfill includes 160 acres in the foothills of the Rocky Mountains, three miles from the City of Boulder. From 1965 until 1974, the site accepted municipal waste, destabilized sewage sludge and many unknown, potentially hazardous wastes. In 1981, a county inspector reported that seeps from leach collection ponds were flowing into Community Ditch, which conveys drinking water to the City of Louisville and irrigation water to eastern ranches. Subsequent studies identified high levels of benzene, trichloroethene (TCE), tetrachloroethene (PCE), barium, iron, manganese and zinc in surface and shallow ground water. The site was listed on the Superfund National Priorities List in 1983 and the parties responsible for clean up are the City of Boulder and Browning-Ferris Industries (now Allied Waste).

Cleanup Activities Completed: Construction completion was achieved in August 1993. The following cleanup activities were completed by the potentially responsible parties (PRPs):

- Constructing a groundwater collection and treatment system.
- Regrading and revegetating the landfill soil cover.
- Draining and treating leachate from lagoons.
- Installing a pipeline to convey water from the Community Ditch through the landfill to prevent further contamination of the groundwater.

Current Status: The PRP's are conducting relevant long-term monitoring and maintenance activities in accordance with the Operations and Maintenance Plan (O&M Plan), and Final Environmental/Performance Monitoring Plan. The primary activities associated with O&M and monitoring of the remedy during the past two years include:

- Maintenance of landfill improvements;
- Piezometric monitoring in the vicinity of the groundwater collection system; and
- Off-site and on-site surface water and groundwater monitoring.

Summary of Protectiveness: The remedy is currently protective of human health and the environment. Nearly all exceedences of water quality standards occurred on-site during the monitoring period and institutional controls remain in force. However, if current conditions persist, off-site contaminant migration may occur.

Issues Impacting Protectiveness: A few issues that do not immediately impact the protectiveness of the remedy were identified. The following table summarizes the status of the follow-up actions addressing these issues.

**Marshall Landfill Superfund Site
Five-Year Review Update Table
Review Date 9/29/06**

Issues	Recommendations/Follow-up Actions	Follow-up Actions (Status/Due Date)	Status of Follow-up Actions 12/08	Responsible Party
1) No distinction made between upper and lower Cowdrey drainage	Clarify which surface water points of compliance are in the upper and lower Cowdrey drainage.	12/06	- COMPLETED - The Cowdrey drainage surface water point of compliance is in the lower Cowdrey drainage.	EPA
2) Detection limits reported for some inorganics and metals are higher than relevant surface water quality performance standards.	Revise analytical method or document new performance standard in an ESD.	12/06	- COMPLETED - Analytical methods have been revised for ammonia, mercury and silver. These revised analytical methods went into effect for the February 2007 and subsequent sampling events.	EPA or Boulder/BFI
3)Frequent exceedences of groundwater standards at monitoring location EPA-14.	Continue monitoring in accordance with the Proposal to Terminate Active Remediation System Operation.	NA	- COMPLETED - Monitoring continues.	Boulder/BFI

