



Colorado Department
of Public Health
and Environment

Lowry Landfill Superfund Site Five-Year Review Fact Sheet



FEBRUARY 2001

EPA Region 8

The U.S. Environmental Protection Agency (EPA), in cooperation with the Colorado Department of Public Health and Environment (CDPHE), has prepared this fact sheet to announce the start of the Five-Year Review for the Lowry Landfill Superfund Site. The review began in November 2000 and will be completed by September 2001.

The Lowry Landfill Site Remedy

The Lowry Landfill Site is located northeast of the intersection of East Quincy Avenue and Gun Club Road, approximately 15 miles southeast of downtown Denver and 2 miles east of Aurora.

On March 10, 1994, EPA and CDPHE signed the *Record of Decision*¹ (ROD) that formally selected the cleanup plan for the Lowry Landfill Site (see Figure 1 opposite). The ROD outlines the rationale for selecting the *remedial action or remedy*, contaminated groundwater and landfill gas are being addressed through containment and treatment. Landfill solids and soils are also being contained at the site. Contaminated surface water is addressed through drainage and underground collection. The Former Tire Pile Area (FTP) waste pits remedy will remove and treat *principal threat wastes*.

In August 1995, EPA and CDPHE issued the first *Explanation of Significant Differences* (ESD) to the ROD. This ESD clarified minor details of the sitewide cleanup plan. In October 1997, EPA and CDPHE issued the second ESD that changed the methods called for treating FTPA waste pit materials and for treating and discharging groundwater to local *Publicly Owned Treatment Works* (POTWs).

This Fact Sheet Will Tell You About:

- The Purpose of the Five-Year Review
- The Type of Five-Year Review
- The Review Team
- How the Community Can Contribute to the Five-Year Review Report
- The Five-Year Review Report

¹ Bold and italics indicate the term is defined in the glossary on page 3.

- Where to Get More Information About the Lowry Landfill Site

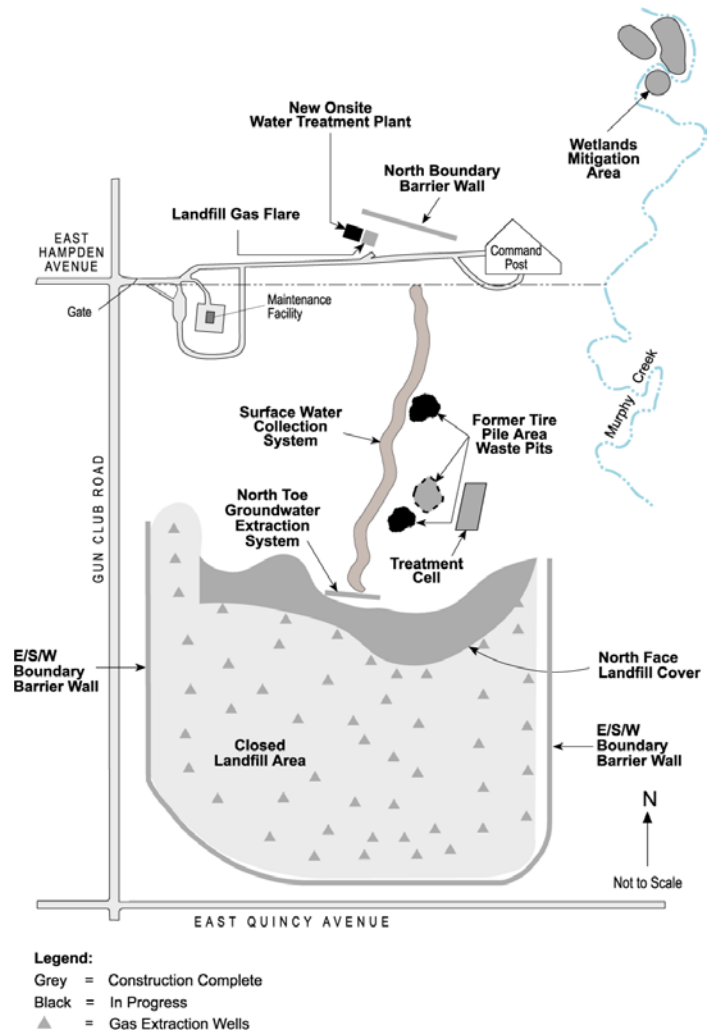


Figure 1
Lowry Landfill Site Cleanup Components

The Purpose of the Five-Year Review

The purpose of the Five-Year Review is to determine whether the remedy at the Lowry Landfill Site is protective of human health and the environment. The review team will review the site ROD and ESDs to determine whether the sitewide remedy is meeting the requirements in these documents. The review will evaluate the implementation and performance of each component of the sitewide remedy. The review will conclude whether the remedy is protective of human health and the

environment; document any deficiencies identified during the review; and recommend specific actions to ensure that the remedy will be or will continue to be protective.

Three key questions are used to determine whether a remedy is protective of human health and the environment:

- **Is the remedy functioning as intended by the ROD?** This will involve an evaluation of whether *performance standards* are being met; if there are any problems with the remedy; and the effectiveness of *institutional controls* such as deed restrictions, zoning controls, and access restrictions. The review will determine if immediate threats have been addressed and evaluate the adequacy of operating procedures and contingencies.
- **Are the assumptions used at the time of remedy selection still valid?** This will include a screening of federal and state cleanup standards referred to as *Applicable or Relevant and Appropriate Requirements, or ARARs*. Land use and potential changes to land use will also be considered. Any new contaminant sources or new human or ecological receptors will be identified. Unanticipated toxic by-products will be studied, and toxicity factors for *Chemicals of Concern* at the site will be revisited. The overall site conditions will be evaluated, and the risk assessment methodologies will be reviewed.
- **Has any new information come to light that could affect the protectiveness of the remedy?** This will involve a review of additional information and also consider whether there have been natural disasters at the site.

The Five-Year Review will involve:

- Community interviews;
- A comprehensive review of site data and key documents;
- A review of *Operation and Maintenance (O&M)* costs;
- An inspection of all remedy components; and
- A general site inspection.

The Type of Five-Year Review

Five-year reviews are required by the *Superfund Laws*. EPA classifies each Five-Year Review as a “statutory” or “policy” review, depending on

whether it is required by statute or is conducted as a matter of policy. A statutory review is required if both of the following conditions apply:

1. Upon completion of the remedial action, hazardous substances, pollutants, or contaminants will remain above levels that will allow for unlimited use and unrestricted exposure.
2. The ROD for the site was signed on or after October 12, 1986.

The Lowry Landfill Site meets both the requirements for a statutory review because the ROD was signed in March 1994. In addition, containment of wastes on the site is a primary component of the sitewide remedy.

The Lowry Landfill Site Five-Year Review will be completed by September 2001 (five years after the start of construction of the first remedy component at the site). The review will be performed in accordance with the Office of Solid Waste and Emergency Response (OSWER) Directive 9355.7-03B-5: *Comprehensive Five-Year Review Guidance*. This guidance document was released in draft form in October 1999 and is expected to be finalized this year.

The Review Team

EPA is the lead agency at the Lowry Landfill Site and is responsible for conducting the Five-Year Review at this site. Under the Superfund Laws, the Potentially Responsible Parties (PRPs) are not permitted to conduct the Five-Year Review or to prepare the report. EPA will conduct the review in cooperation with CDPHE, the support agency at the site. The review team will include:

- EPA’s Lowry Remedial Project Manager – Gwen Hooten;
- EPA’s Community Involvement Coordinator – Nancy Mueller;
- CDPHE’s Lowry Project Officer – Lee Pivonka;
- CDPHE’s Community Involvement Manager – Marion Galant;
- EPA Region 8’s Radiation Expert – Milt Lammering;
- EPA’s Lowry Site Attorney – Jessie Goldfarb;
- EPA’s Oversight Contractor at the Lowry Landfill Site – CH2M HILL; and

- Other technical experts as needed.

How the Community Can Contribute to the Five-Year Review

During the Five-Year Review, the team will conduct interviews with various parties, including community members, to obtain information about the site and any concerns. The participants in the interviews will include:

- State and local regulatory agencies;
- The Lowry Landfill Site Technical Advisory Group;
- Local homeowner associations;
- Local residents, businesses, and other concerned parties;
- Interested citizen groups and community action groups;
- Parties in eastern Colorado where biosolids are being applied; and
- Operation and maintenance contractors.

The interviews will address any successes or problems with implementation of the remedy. EPA will notify the public when the Five-Year Review is completed and will announce where the report can be reviewed. EPA will also provide a summary of the review findings.

The Five-Year Review Report

After the Five-Year Review is completed, EPA will prepare a report that will be placed in the site information repositories listed on the last page of this fact sheet.

The Five-Year Review Report will contain the following:

- Introduction
- Site Chronology
- Background
- Remedial Actions
- Five-Year Review Process
- Five-Year Review Findings
- Assessment
- Deficiencies
- Recommendations and Follow-Up Actions
- Protectiveness
- Next Review
- Other Comments

The Five-Year Review Report will be signed by EPA's Regional Administrator (or a designee), who

will issue a memorandum indicating concurrence or documenting disagreement with the findings of the report. The report will also be forwarded to EPA Headquarters, which will report the results of the review to Congress.

Glossary

Applicable or Relevant and Appropriate Requirements (ARARs):

Federal and state requirements that the site remedy must attain, such as allowable air emission limits and allowable levels of contaminants in soil or water.

Chemicals of Concern: The most prevalent and toxic site-related chemicals.

Explanation of Significant Differences: Changes to the remedy in the ROD that modify some parts of the cleanup plans but do not change the overall approach of the sitewide cleanup plans.

Institutional Controls: Rules, regulations, laws, or covenants that may be necessary to assure the effectiveness of a cleanup alternative. Examples of institutional controls include, but are not limited to, deed restrictions, zoning controls, and access restrictions.

Operation and Maintenance (O&M): Measures implemented to maintain the effectiveness of the selected remedy.

Performance Standards: Maximum allowable contaminant levels used to measure the effectiveness of each component of the site remedy.

Principal Threat Waste: Highly toxic or mobile contaminants that are readily accessible.

Publicly Owned Treatment Works (POTW): Metro Wastewater Reclamation District's and Aurora's wastewater treatment plant facilities that treat water from the sewer systems.

Remedial Action or Remedy: The construction and operation phases of cleanup at a site.

Record of Decision (ROD): A public document issued by EPA that explains which cleanup alternatives will be used at a Superfund site.

Superfund Laws: The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). These laws authorize the federal government to respond to potential releases of

hazardous substances that may endanger public

health, welfare or the environment.

Where to Get More Information About the Lowry Landfill Site

The Administrative Record containing the documents used by EPA to make a decision on the selection of the site remedy and the ROD, ESDs, engineering designs, fact sheets, oversight reports, and other site-specific documents are available for review at the following locations:

EPA Superfund Records Center
999 18th Street
Denver, CO 80202
303/312-6473

Aurora Public Library
14949 East Alameda Drive
Aurora, CO 80012
303/739-6600

Many site documents can also be seen at the Deer Trail Public Library, Bennett Public Library, and Byers Public Library.

Additional information about the Lowry site can be obtained on the Internet at:

<http://www.epa.gov/region8/superfund/sites/co/lowry.html>

Key Contacts

If you have questions about the Five-Year Review at the Lowry site or would like to be added to (or removed from) the mailing list, please contact any of the following individuals:

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