

Long-Term Liquid Addition Program Support

After leading the effort to obtain the initial RD&D permit to add leachate and other liquids to the landfill, EIL assisted the landfill owner for over 10 years with implementation and management of the liquid addition program.

Client: Confidential
Location: Western US

Program Management and Reporting: prepared annual reports assessing actual results against the program's goals of positive environmental benefits and no increased risk to human health and the environment. The reports included critical evaluations of:

- Trends in rates of gas flow, settlement, leachate flow, as well as leachate chemical characteristics;
- Methods of liquid addition, with the goal of identifying methods that most evenly distributed leachate within the waste mass and minimized working face and waste compaction difficulties;
- Lessons learned in operations; and
- Proposed revisions to operational practices and the monitoring program.

In-Situ Moisture Measurement: EIL also developed and implemented a program to assess the in-situ moisture content of the waste mass and compare results from liquid addition and non-liquid addition areas. The work involved measuring moisture content within the waste using neutron and gamma logging.

Pumping System Design: EIL designed a new pipeline and valving system based on a design flow rate, future head requirements, and leachate characteristics. Also specified a pump and control system to meet site requirements.

Horizontal Well Design: designed horizontal injection wells with variable perforation sizes to optimize liquid distribution along the entire length of the well.

