LOWE ENVIRONMENTAL IMPACT

Land Treatment Systems

Turning Waste into Resource

Land treatment aims to beneficially use the applied 'waste' material for productive use. This is achieved by using the environment to provide further treatment through nutrient sequestration and removal, evapo-transpirative uptake and atmospheric loss, and pathogen reduction.

Through land treatment, LEI can help you harness nutrient and water content to support plant growth, improve soil health, and deliver environmental, cultural, and economic benefits. Whether for municipal, industrial, agricultural, or domestic applications, we can identify designs to meet the unique needs of each site and community.

Land treatment of wastewater has several significant advantages:

- Avoids discharge to surface water
- Can lessen the need for WWTP upgrades
- Reduces storage requirements
- Irrigation and fertilisation benefits
- Supports cultural objectives

Regulatory Requirements

Wastewater producers and managing councils must comply with both the local and regional council regulations as well as navigating Taumata Arowai requirements. Many council policies promote consideration of land treatment.

Who is Lowe Environmental Impact (LEI)?

Lowe Environmental Impact (LEI) are specialists in land treatment, from farm-scale to large-scale community schemes.

Our in-depth knowledge of land treatment and its environmental effects enables LEI to support your needs and provide tailored solutions for any project.

How can Lowe Environmental Impact (LEI) help you?

Our land treatment expertise includes:

- **System Specifications**
  - Tailored to wastewater characteristics and land capability
  - Configurations for pasture, crops, or forestry
  - Engineered for nutrient loading and hydraulic capacity
- **Matching Wastewater with Land**
  - Assess nutrient levels and hydraulic load
  - Evaluate slope, drainage, soil type, and land use
  - Land suitability mapping
- **Soil Investigations & Monitoring**
  - Assessments of soil permeability and nutrient uptake
  - Install piezometers and monitoring points
  - Hydrological modelling of groundwater flow
- **Option Development**
  - Land-only, water-only, and hybrid discharge options
  - Design storage systems for seasonal irrigation
  - Balance environmental protection with community values
- **RMA Consenting**
  - Assess effects and prepare AEE
  - Iwi, stakeholders, and affected party engagement
  - Alignment with regional and district plans
  - Expert evidence and hearing support

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