

## Soil Characterisation and Management for Construction Sites

When sites are disturbed and landscapes altered, some of the soil and subsoil materials excavated or exposed may have highly undesirable chemical and physical properties. Frequently, the materials are quite hostile to plant growth, and sometimes highly unstable.

For those reasons, characterisation of materials **prior** to commencement of construction activities is strongly recommended. It can avoid serious problems and reduce or avoid long-term costs for site maintenance.

Landloch Pty Ltd provides:

- **Expert mapping of soil types and assessment of Good Quality Agricultural Land**
- **Sampling of soil profiles**
- **Analysis of soil properties**
- **Interpretation of analytical data and provision of advice on soil management or remediation**
- **Advice on erosion and sediment control.**

Where sodic subsoils are exposed, tunnel erosion can threaten earthworks, cause high suspended sediment loads in runoff, and even compromise safety. Landloch has extensive experience in the identification of tunnel erosion risk and in its control.

Extremes of pH can cause difficulty for site revegetation, and some sites have embarked on costly (and unnecessary) applications of large quantities of lime or gypsum. Landloch uses soil analytical data to accurately calculate the rates required and ensure that costs are minimized.

For sites that are to be revegetated, Landloch provides advice on fertilizer types, quantities, and application methods to optimize plant growth, minimize off-site movements of nutrient, and maximize cost-effectiveness. Landloch is able to advise on plant species that are adapted to deal with specific soil or site problems.

As a leading soil erosion control specialist, Landloch can advise on strategies to minimize erosion and sediment movement during both construction and subsequent site rehabilitation and maintenance. For specific issues, soil erosion modeling can be used to underpin calculations and recommendations. Landloch is the only company in Australia able to measure erodibility for a range of computer models.

Landloch has extensive experience with soil characterization and management issues for construction sites in south-east Queensland and for minesites across Australia.



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