



Soil and Land Survey

A range of land use activities require knowledge of the distribution and properties of soils. Information requirements can vary greatly depending on the project, from considerations of agricultural land use (eg GGAL and SCL in QLD and BSAL in NSW) and guidance on topsoil stripping depths, through to identifying subsoil hazards such as salinity and sodicity.

Landloch has carried out soil surveys on many sites in Australia for the mining, coal seam gas, residential and commercial development sectors. Soil survey designs - if genuinely cost-effective - will address client needs, site conditions and regulatory requirements. They provide information on construction and rehabilitation practices, as well as manage soil related risks. Our surveys focus on these factors and are further designed to assist clients in managing construction, rehabilitation and costs.

Methods and data sources are tailored to the specific project.

For projects covering larger landscape expanses, Landloch can link broad landscape properties with typical soil formation processes. Such an approach utilises examination of soil pits and soil cores. Existing data collected as part of other soil and regolith characterisation studies, such as geological drilling, and geotechnical and hydrological assessments of near surface materials, can be included in the soil survey, which increases the amount of available data without increasing sampling costs.

Without detailed planning, surveying soils for linear infrastructure projects can become very expensive. Landloch is highly skilled in establishing survey programs for these types of projects and can use a range of remotely sensed information to significantly increase the value of the soils surveyed and reduce the costs of their future management. Useful information includes:

- Radiometric information that is able to more efficiently delineate geologic variation and soil boundaries; and
- Electromagnetic induction that provides a rapid and cost-effective broad-scale assessment of a range of surface and subsoil properties.

Our field teams can be mobilised and deployed efficiently to central and northern NSW, southern and central Queensland and the mining and agricultural regions of Western Australia. Field teams have also been engaged in more distant and isolated regions.

Soil analyses are provided by a suitably accredited laboratory when such detail is required and field position data are captured with quality GPS equipment. This accurate information is able to be delivered in GIS format and / or customised to meet the client's needs, with delivery platforms containing digital mapping and online map services.

Landloch's experienced soil scientists can provide management recommendations for the soils identified during a survey, as they have considerable expertise in soil management and land rehabilitation. Areas surveyed have ranged from 2Ha to 55 000Ha.