



Erosion Control & Rehabilitation of Degraded Areas



mines at Halls Peak, near Armidale. The success of this project was critical due to significant sulphide deposits generated by the mines. Work involved:

- cutting benches into the open-cut area to direct water through the site;
- excavating, loading and transporting ore material for burial at the open-cut site; and
- constructing three sediment ponds at the bottom of the open-cut site to capture and contain eroded materials.

Sand Dune and Coastline Reclamation

The Australian coastline represents one of the world's most beautiful and sensitive environments. This environment is readily and often severely impacted by development, stormwater, violent storms and recreational pressures. Soil Services has spent decades working in this fragile environment developing and implementing programs involving vegetation restoration, dune formation and shaping works, repair of blow outs, and working with land managers to sustain public use.

Transportation Corridors, Access Tracks and Fire Trails

Transportation corridors, access tracks and fire trails play an important role in providing safe and effective pedestrian and/or vehicle movement. However, concentrated traffic and uncontrolled rainfall runoff can create serious erosion and sediment issues which, in turn, affect the utility of these tracks. Soil Services can help you to maximise the service life of access tracks through effective:

- planning advice;
- selection of suitable track routes and track design;
- identification and restoration of track surface erosion problems;

Soil Services has proven experience in the successful rehabilitation of a wide range of degraded areas including bushland, rural properties, road batters, quarries, salt scalded areas, active and derelict mines, school grounds, garbage tips and beach dunes. We use a combination of proven measures to re-vegetate large areas and difficult sites, such as:

- detailed survey and site assessment;
- works to control drainage and erosion;
- treatment to increase infiltration and retain soil moisture;
- land shaping and stabilisation;
- soil amelioration and revegetation with native or exotic species as required; and
- post works - stock and land use management recommendations.

Mine and Construction Site Rehabilitation

With increasing pressure on industries to reduce the environmental impact of their operations and to rehabilitate disturbed areas, mining and construction companies are turning to Soil Services to provide an effective rehabilitation solution. A recent example of our work is the rehabilitation of a series of derelict

- preparation of environmental audits and track surface condition reports;
- construction and maintenance earthworks;
- VETAB accredited erosion and sediment control training;
- selection, testing and installation of suitable track surface and foundation materials;
- NATA registered laboratory testing and analysis of soil;
- rehabilitation and revegetation;
- vegetation removal (with appropriate permissions); and
- monitoring and maintenance.

If any of your access tracks are eroded, muddy, or difficult to use, contact Soil Services to arrange a free inspection before you undertake track construction or maintenance works. Our sound practical advice and experience in access track management will save you time and money.

Bushland Restoration and Management

Soil Services provides bushland restoration services to a diverse range of clients across NSW.

We have undertaken numerous projects for NSW government agencies, local government and private landholders in a range of areas. These include:

- bushland mapping
- weed mapping
- bush regeneration planning and works
- coastal restoration
- management plans
- bushfire mitigation plans and works

Soil Services' statewide network ensures our clients are assisted by professional staff with many years of experience in their region.

Waterway and Channel Stabilisation

Our Soil Services staff have extensive technical and practical experience with the stabilisation of eroding rivers, creeks, streams, constructed canals and other unlined channels. We can offer the following services:

- identification of the causes of erosion and sedimentation;
- selection of the most appropriate and cost effective revetment treatment;
- preparation of revetment design plans, specifications and costings;



Upper tailings dump before rehabilitation

- construction of rock revetment works;
- geotechnical assessment of site stability;
- laboratory testing of in-situ soil and suitability of rock;
- advice on all aspects of site revegetation; and
- installation of erosion and sediment control works associated with revetment treatment.

If erosion of the banks or beds of rivers, creeks, streams, constructed canals and other unlined channels is impacting on your physical or financial resources – or if you require any advice about erosion and sediment control in any of your drainage structures – talk to our qualified Soil Services team.

Ground Maintenance

Soil Services provides a broad range of ground maintenance treatments to schools, colleges, councils, and government agencies. Our treatments include:

- erosion and sediment control;
- aerating, top-soiling and fertilising;
- landscape design and surface reshaping;
- turf management and restoration;
- aboriculture and horticulture;
- soil and water testing;
- revegetation and regeneration;
- construction of works to improve pedestrian and vehicular access;
- identifying and eliminating potential safety hazards;
- creating new recreation areas;
- stormwater surface and sub-surface drainage design and construction; and
- specialist facilities for infant and disabled persons.

Our background and experience in ground maintenance ensures an attractive, safe and healthy result.



Upper tailings dump rehabilitated

Service and Utility Easements

Electricity, gas, water, sewerage and telecommunications – these are just some of the services and utilities being distributed within easements that traverse urban and rural landscapes. Soil Services can assist service and utility managers in minimising environmental impacts within these easements. With our sound knowledge of environmental management, Soil Services copes with the range of landscapes and environments in which easements occur through a combination of:

- design and implementation of erosion control, revegetation and rehabilitation works;
- preparation of soil and water plans of management;
- environmental assessments for works (including REF and SEE)
- preparing environmental audits and easement condition reports;
- providing VETAB accredited training in erosion and sediment control;
- soil and water testing;
- clearing of vegetation;
- compliance with environmental regulations;
- protection of service and utility infrastructure; and
- minimising visual impact on the environment.

Batters and Drains

Excavated batters and drains can become prone to erosion from stormwater runoff and strong winds if left exposed. Our simple, effective prevention methods include:

- site investigation and soil and water testing;
- preparing erosion and sediment control plans;
- selection, design and implementation of stormwater and sediment management measures; and

- revegetating batters and/or lining drains to provide long-term stability.

Our sound knowledge of erosion and sediment control principles and soil and water management enables Soil Services to provide cost effective control measures for your construction site or property.

Gully Control Structures

A gully is caused by water flowing in a concentrated area that is not sufficiently protected by permanent grass cover. Soil Services employs a number of gully filling and shaping practices to control and divert water run-off. This brings back unproductive areas and improves efficient land use and access.

Want to know more?

For more information on how we can fulfil your requirements, please contact your nearest Soil Services division area manager (below) or visit our website on www.lands.nsw.gov.au

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