



Soil Conservation Service

Managing your soil and water resources



Department of Lands *Reliable from the ground up*



Conserving our resources

The soil and water resources of New South Wales (NSW) are limited, and their conservation is fundamental to the ongoing viability of our agriculture and related industries.

Soil erosion is not only a problem for property owners, it also results in major off-site damage such as:

- water courses and culverts blocking up
- sediment reducing the life of major water storages
- nutrients and other pollutants affecting water quality in dams and rivers.

Controlling runoff to prevent soil erosion, safely storing and distributing water and rehabilitating eroded or disturbed areas are therefore key elements in the sustainable management of properties and catchments.

Well designed and constructed earthworks have proven to be a cost-effective and reliable measure for soil and water conservation. These works are a sound, long-term investment for private landholders and the community who are concerned about protecting their land assets.

Soil Conservation Service – leading the field

The Department of Lands (Lands) incorporates Soil Conservation Service which has been involved in the planning, design and construction of earthworks for soil and water conservation purposes since 1938.

Soil Conservation Service is the commercial earthmoving and consulting division of the department. We have 45 bulldozers located across more than 30 centres throughout NSW.

Our reputation for understanding client needs and

providing realistic solutions is well known in rural NSW. Over the years, clients have greatly valued the skill level of our operators, particularly their efficiency and attention to detail.

Soil Conservation Service specialises in soil and water conservation and we are recognised worldwide as a leading authority on all facets of conservation earthworks.

We are committed to providing quality service for the right price, operating a modern and efficient fleet of bulldozers, and making substantial investments in training to develop all of our operators to the highest standard.

Broadacre erosion control

Broad-based banks are used on farming country to intercept runoff that is flowing down paddocks to prevent significant soil movement before it starts. Their low profile allows the entire bank to be farmed, and does not restrict access around the paddock.

The banks are slightly graded to carry the flow to a stable outlet. This is either a natural watercourse or a constructed, grassed waterway.

Rehabilitating eroded or disturbed areas

Overgrazing or other forms of intensive land use can result in exposure to severe erosion. These areas can be successfully stabilised through a combination of measures that may involve:

- constructing a diversion bank above the area to protect it from runoff
- deep ripping to increase water infiltration
- shaping and filling to achieve stable slopes
- fertilising and sowing the area with suitable species
- fencing to exclude all stock and feral animals.

Gully filling and shaping

Water flowing in a concentrated area – that is not sufficiently protected by permanent grass cover – results in the formation of gullies. Diverting the concentrated flow away from the gully line and then filling the old gully brings back unproductive areas, and improves efficiency of farming operations.

The sides of a gully can be shaped where it is too deep for filling to be practical, or if the gully still needs to carry water. By flattening the gully sides, slumping is prevented and vegetation will begin to establish on the reshaped areas, resulting in a stable watercourse.

Access tracks

Soil Conservation Service has developed expertise in the construction of access tracks to minimise environmental damage and on-going maintenance. Given our experience, Soil Conservation Service is frequently engaged by State Forests, Rural Fire Service and the National Parks and Wildlife Service for track construction and maintenance.

Dams for water storage and erosion control

Farm dams for stock and domestic water supply, when located and constructed properly, greatly enhance the value and aesthetic appeal of any property.

In addition to providing a reliable source of stock water, farm dams can be useful in controlling erosion:

- reducing flows by storing runoff
- trapping sediment on-site
- blocking active gullies and diverting flows to a stable area
- drowning-out active gully heads with stored water.

Lack of attention to the catchment runoff, water supply requirements, site selection, and standards for design and construction is likely to result in dam failure.

Soil Conservation Service has particular expertise in locating dams to maximise water storage, field and laboratory testing to determine whether the soil is suitable, dam and spillway design and using the right construction technique for each situation.

Mine rehabilitation

Increasingly, the pressure is on extractive industries to reduce the environmental impact of their operations and rehabilitate disturbed areas. Mining companies continue to use Soil Conservation Service to provide a full range of services from the design and construction of erosion and sediment control works to full project management and rehabilitation of mine sites.

Beach reclamation

Where development along the coast has been allowed to encroach onto beach dunes, the natural protective vegetation is often destroyed, resulting in erosion of the dunes.

Soil Conservation Service has been involved in many programs to fill in blow outs and reshape eroded dunes. This work prepares the dune for planting with a cover crop to provide initial cover while more permanent species establish.

Polypipe laying

To reduce water waste and conserve underground supplies, a program of replacing open bore drains with polypipe is being implemented across NSW. We have developed efficient pipe laying techniques, used for piping bores and reticulation of stock water around farms.

Rabbit control

A critical part of rabbit control is to follow-up removal treatments with a ripping program to collapse the warrens. Soil Conservation Service bulldozers are well suited to this application.

Planning and financing your job

Our soil conservation officers and engineers ensure that the planning and construction of each job is optimal in terms of effectiveness and value for money.

Earthworks programs are often part of an overall property plan that incorporates other management issues such as land use strategies, fencing, tree planting and water reticulation. In this way, the owner is able to develop their property in an orderly, integrated way, consistent with their needs and budget.

The Rural Assistance Authority provides low-interest finance to primary producers for soil and water conservation works. With generous repayment terms, this scheme has been used to finance many jobs, allowing the client to benefit from implementing an entire works programs in one go.

Soil Conservation Service staff are familiar with the eligibility criteria and can assist clients with their loan application. With the cost of soil conservation works fully tax deductible in the year of expenditure, there may be substantial benefits for property owners investing in a works program.

Please note: *Certain works may require approvals or licences from local, state or federal governments including the Department of Lands. It is the responsibility of the landholder to ascertain any such requirements and obtain any necessary approvals or licences.*

Want to know more?

If you are concerned about protecting your soil and water resources or want to find out how a well planned program of earthworks can improve the productivity and value of your property, contact your nearest Soil Conservation Service office or visit our website

www.lands.nsw.gov.au. We provide an on-site inspection, with advice on what works are needed and estimate of cost. If you want to proceed, Soil Conservation Service will complete final design and survey. The job can then be scheduled into a works program to suit seasonal conditions and your particular needs.

As a measure of our confidence and commitment to client satisfaction Soil Conservation Service operates a quality management system for all works, along with providing advice on how to maintain the works to ensure that they will continue to function properly.

Our locations



Contact us

Northern area	Telephone	Mobile
Garry Chapman Area Manager	(02) 6764 5126 garry.chapman@lands.nsw.gov.au	0429 304 341
Armidale	(02) 6772 5488	0427 970 155
Inverell	(02) 6722 2769	0427 686 388
Narrabri	(02) 6799 1830	0427 254 979
Quirindi	(02) 6747 1344	0427 255 848
Singleton	(02) 6572 1707	0411 156 205
Tamworth	(02) 6764 5117	0427 257 123
Warialda	(02) 6729 1227	0427 696 701

Central area	Telephone	Mobile
Col Adams Area Manager	(02) 6391 4317 col.adams@lands.nsw.gov.au	0417 066 586
Bathurst/Orange	(02) 6332 8167	0428 890 433
Gilgandra/Mudgee	(02) 6847 2923	0427 363 100
Cowra/Young/Grenfell	(02) 6341 1600	0427 204 269
Wellington/Dubbo/Parkes	(02) 6845 4360	0427 923 367

Southern area	Telephone	Mobile
Guy Van Owen Area Manager	(02) 4868 3744 guy.vanowen@lands.nsw.gov.au	0407 079 590
Henty/Wagga	(02) 6929 3170	0427 481 132
Moss Vale/Goulburn	(02) 4868 3744	0427 165 027
Nowra	(02) 4428 6902	0427 603 321
Queanbeyan/Cooma	(02) 6284 3062	0411 257 886
Temora/Cootamundra	(02) 6977 1447	0427 267 831

Eastern area	Telephone	Mobile
Mike Fletcher Area Manager	(02) 4920 5077 michael.fletcher@lands.nsw.gov.au	0411 160 990
Newcastle	(02) 4920 5073	0408 691 473
Parramatta	(02) 8836 5358	0418 258 890
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