

Revegetating watercourses



This summary guide has been prepared to help individual landholders and the community develop a plan for revegetation activities within riparian lands along watercourses such as rivers, creeks and wetlands. This is a companion to the more extensive guide (available online via Water>Managing water resources>Watercourses at <http://www.naturalresources.sa.gov.au/northernandyorke/water/managing-water-resources/watercourses>) and describes the main principles and practices of revegetation including stock management, site assessment, site preparation, planting techniques, species selection, maintenance and monitoring.

Riparian land in the Northern & Yorke Region

The Northern & Yorke Region contains four priority catchments: Willochra, Broughton, Wakefield and Light. These catchments cover an area of 1,460,000 hectares and contain native riparian vegetation corridors within a largely cleared agricultural landscape. Grazing has been identified as the most extensive threatening process to riparian land, and revegetation plays a central role in catchment rehabilitation.

Why should we manage and revegetate watercourses?

Riparian vegetation helps to protect the watercourse from damage by adjacent land use. Revegetating or managing native vegetation on the riparian areas can:

- improve water quality
- reduce soil erosion, loss of bank vegetation and siltation of pools
- provide habitat for both aquatic and terrestrial plants and animals
- improve stock health through providing better quality drinking water and shelter
- provide vegetated corridors between patches of remnant vegetation
- reduce weed infestations and spread
- increase property values.

Clearing vegetation to increase the amount of land available for grazing and cultivation has been the prime cause of land use change in riparian areas. Unrestricted stock access to watercourses can cause negative impacts in riparian areas including:

- erosion
- reduced bank stability
- reduced water quality
- reduced regeneration of native vegetation
- soil compaction and pugging
- exposed bare ground.



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Revegetation in practice

There are five key practices to consider when you're planning revegetation activities.

Site preparation

A site assessment is the first step in a successful revegetation program. Use a person who is skilled in plant identification and can assess other site factors such as erosion, drainage issues and weed species present. Creating a buffer zone of native vegetation between a watercourse and adjoining paddocks will help to improve the riparian land through slowing runoff, reducing the risk of water contamination and increasing plant and animal diversity. Fencing this area to control stock access will also be important. Controlled grazing can be used in some situations, but it is important that other aspects like stock watering points and crossings are also considered. Weed and pest control programs are also essential in preparing a site for revegetation and support its success.

Species selection

Select species that are native to the local riparian area. Natural Resource Management officers or revegetation consultants can help you to prepare specific species lists for your area. Use seed collected from locally existing native species and make sure you record where each species occurs naturally on the property as there are different soil moisture levels across the riparian landscape.



Planting techniques

Tube stock planting, machine direct seeding and hand seeding are the most common planting techniques. Tube stock planting is the most costly and labour intensive, but it is the most reliable and can be used in combination with other techniques. Machine direct seeding is cost-effective and easier than planting tube stock or hand seeding but is not suited to sites with native trees and understorey species. Hand seeding is considerably cheaper and can be very successful, although it is not suited to high moisture soil or grassy areas where other plants will compete.

Maintenance

Revegetated areas are subjected to changing conditions like flooding, erosion, grazing and emerging weeds so will need regular maintenance. Incorporating grazing management activities, weed management, feral animal control and fire management into your revegetation plan will provide the base for a good maintenance strategy.

Monitoring.

Monitoring will help you to collect detailed records of the progress at each step of a revegetation project. Monitoring can also provide useful information for future projects in the area. Photopoints or vegetation counts along transects can be useful monitoring tools, but are many techniques and databases available, which can be found by contacting local NRM officers.

Calendar of revegetation activities

It is important to have clear calendar entries of all revegetation activities to help manage the potential impacts on the revegetation project. It is never too late to start a revegetation program, but the schedule below indicates an ideal situation.

- Start planning two or more years prior to commencing seeding and planting.
- Implement weed control activities at least 12 months prior to planting.
- Order seeds two years prior planting.
- Order plants at least 12 months prior to planting.

For more information

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