





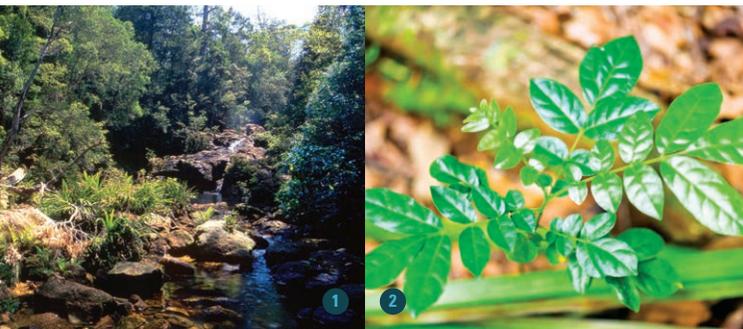
THE CONDITION OF THE ADJACENT LAND AND VEGETATION INFLUENCES RIVER HEALTH AND WATER QUALITY

## THE IMPACT OF VEGETATION ON WATER QUALITY

Lack of vegetation both along waterways and across our drinking water catchment can lead to excessive runoff, stream bank erosion, greater impacts from catchment land uses, decline in important wildlife habitat, reduced water quality and damage to in-stream ecosystems.

This affects **river health** and **drinking water quality** by introducing:

- **pathogens** from stock faeces and human waste (septic systems)
- **nutrients** from fertilisers, stock faeces and urine which cause toxic algal blooms
- **sediment** from soil erosion and runoff from farms which harms aquatic life, clogs streams and burdens the drinking water treatment process
- **chemicals** from pesticides, herbicides and inappropriate waste disposal.



1. RIPARIAN VEGETATION CREATES A BUFFER BETWEEN WATERWAYS AND ADJACENT FARMS 2. REGENERATING SAPLING 3. WATER 4. PROTECTING OUR WATERWAYS IS A SHARED RESPONSIBILITY



# HOW CAN LANDHOLDERS PROTECT AND RESTORE VEGETATION?

## Improve the condition of waterway frontages with vegetation

The condition of land fronting natural waterways, including riverbanks, directly influences water quality.

Managing land adjacent to natural waterways is an essential part of good land management and results in a wide range of benefits to water quality, catchment health and farm productivity. Improving the condition of waterway frontages with vegetation will:

- enhance water quality
- slow runoff
- reduce erosion
- stabilise riverbanks
- provide habitat and a continuous corridor for the movement of flora and fauna
- trap sediments, nutrients and other contaminants.

When improving the condition of waterway frontages with vegetation remember:

- choose a range of native or indigenous plant species
- the wider the vegetated land along waterways the better
- choose grass, reeds and shrubs for the lower parts of the bank and shrubs and trees higher up the bank
- keep stock out by fencing between the vegetated water frontage and the rest of the property.

## Protect, Restore and Regenerate Rainforest on Farms

Before European settlement the Big Scrub Rainforest was the largest continuous expanse of lowland sub-tropical rainforest in Australia covering over 75,000 hectares. Today, this rainforest has been reduced to less than 1% of its original size.

Vegetation plays many important roles in the water cycle, particularly in the maintenance of good water quality. Protecting, restoring and creating rainforest on your property serves a range of functions that improve the quality of the catchment, and have a beneficial effect on water quality.

In addition to increasing drinking water quality, protecting, restoring and regenerating rainforest on farms helps to:

- increase biodiversity and create healthier ecosystems
- enhance and protect drinking water quality
- reduce carbon dioxide in the atmosphere
- create healthier waterways
- decrease erosion
- help soil to retain nutrients
- provide windbreaks and shelter
- increase the value of your land.

It isn't just waterway frontages that provide a good place for rainforest restoration. Create a corridor from one patch of vegetation to another. Ridgelines, lands subject to salinity and steep slopes also provide good places for rainforest restoration.

## Buffer Zones

Regenerating vegetation and protecting existing remnants of the former Big Scrub rainforest creates a buffer zone between the water supply and adjacent activities.

Creating buffer zones on farms serve a range of functions, including:

- filtering sediments and nutrients contained in runoff from upslope
- improving stream bank stability
- shading of stream and foreshore areas impacting on stream water temperature
- decreasing algal growth
- providing improved habitat for a range of plants and animals (including fish).

All of these functions improve the quality of the catchment and have a beneficial effect on water quality.

## Offsetting costs

Assistance may be available to protect and restore vegetation in our catchments to protect drinking water quality. This is because there is increasing recognition that healthy catchments have benefits for the wider community as well as for landholders. Contact your Local Land Services, Rous County Council or Landcare for further information.

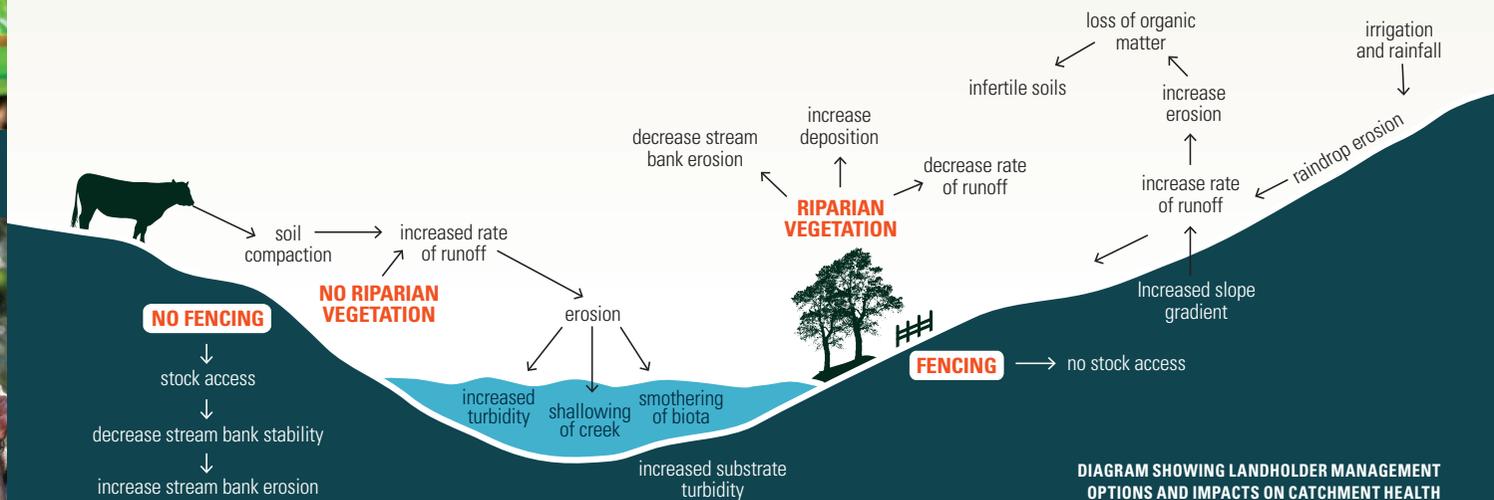


DIAGRAM SHOWING LANDHOLDER MANAGEMENT OPTIONS AND IMPACTS ON CATCHMENT HEALTH