Reducing the impacts of grazing on water quality

It's in all our interests to protect waterways and help maintain the best possible water quality.

Grazing activities can affect water quality so using good controls can help reduce or remove risks.

This guidance is for:

- Landholders with waterways on or near their land
- Landholders managing Crown water frontages with licence conditions
- Landholders who don't have waterways on their land or adjoining their property who still need to be aware of where their run-off water flows to, due to its potential impact on nearby waterways.

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Environment Protection Authority Victoria

AGRICULTURE VICTORIA

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Authorised by the Victorian Government, 1 Treasury Place, Melbourne

This guidance will explain some of the hazards and risks to waterways from grazing activities.

It will give examples of how to manage and control those hazards and risks so you can help maintain healthy waterways.

Your farming activities can affect water quality if you don't appropriately control risks. You can help protect waterways and meet your environmental obligations at the same time by managing such risks, preferably as part of your whole farm plan.

Activities that can impact water quality

- Uncontrolled stock grazing on riparian land
- Overgrazing on riparian land
- Grazing on riparian land at high-risk times, such as winter and droughts
- Supplementary feeding of stock in paddocks close to waterways
- Allowing juvenile stock and lactating animals with calves or lambs to access riparian land
- Allowing stock to directly access waterways
- Allowing run-off with sediment, nutrients and contaminants that flow into waterways.

The **general environmental duty** (GED) is central to the ***Environment Protection Act 2017***. This requires all Victorians to minimise risks of harm to human health and the environment from their activities as much as they can.

This guidance applies to grazing and other activities on your land. The control options here are provided as a guide to reduce risks to waterways from grazing activities. Whatever control options you adopt, you must minimise the risks from these activities so far as reasonably practicable in order to comply with the general environmental duty.

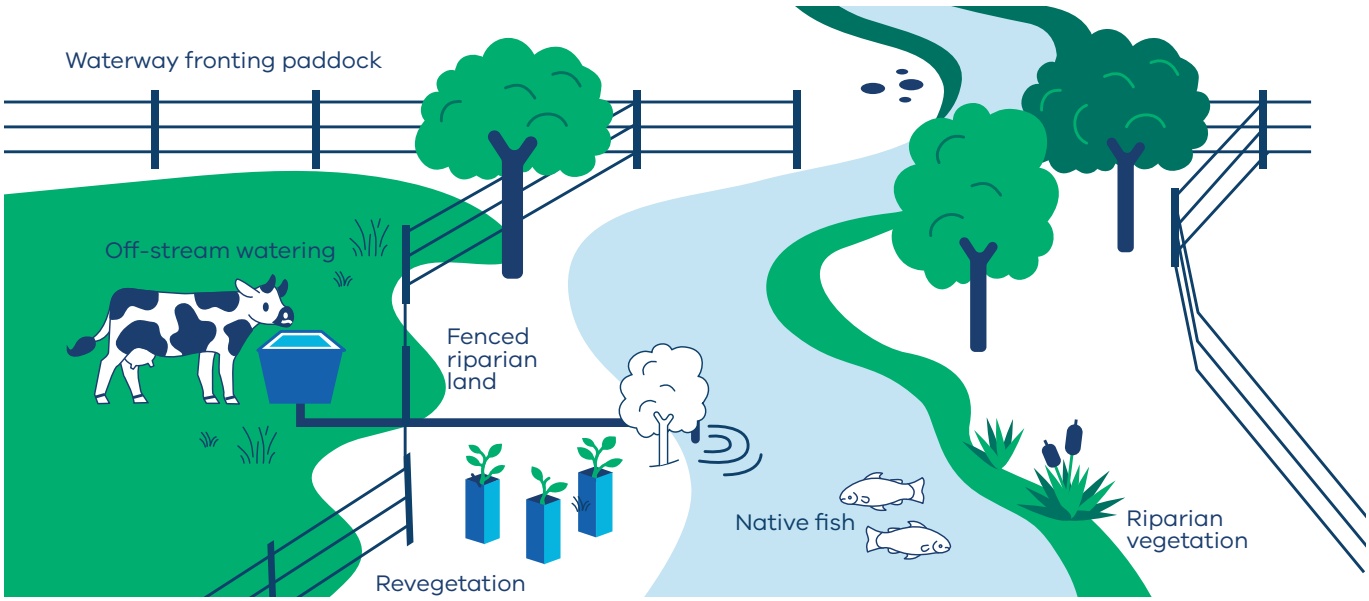
Land that runs along rivers, creeks, estuaries and lakes is known as riparian land. Riparian land filters water, prevents erosion and supports a healthy surrounding landscape. By protecting riparian land, you will also help keep waterways healthy.

Good stock management practice

The figure below shows examples of good stock management practices and control options you can use to maintain healthy waterways.

Contact your local catchment management authority (CMA) for more information about managing land that runs along waterways and your eligibility for funding programs.

viccatchments.com.au

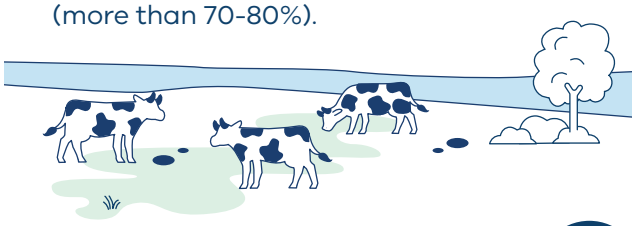


Common hazards

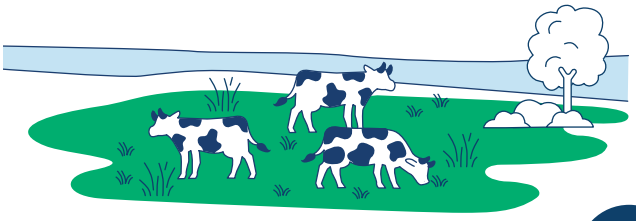
1 Inadequate or little ground cover on riparian land and waterway-fronting paddocks

Good management or control options:

1. Plant (preferably native) vegetation, or maintain vegetated riparian land at least 10m from the top of the bank for low slopes, or up to 30m for steeper slopes. Do this at key points where water from grazing land would concentrate and run into waterways.
2. In riparian areas with good vegetation, any grazing may be detrimental. However, in other cases, strategic grazing on riparian land for very short periods (preferably not during spring or early summer when plants set seed) to manage weeds, fuel loads and vermin.
3. Base stocking rates of waterway-fronting paddocks on pasture monitoring at critical times, avoiding grazing at low pasture growth times and when soils are waterlogged.
4. Adjust stocking rates of waterway-fronting paddocks independently of other grazing land to maintain higher ground cover (more than 70-80%).
5. Manage waterway-fronting paddocks independently or differently to other grazing land.
6. Avoid grazing at high-risk times in waterway-fronting paddocks, such as when soil moisture is high (in winter) or when the soil is very dry (such as during a drought).
7. Where appropriate, maintain a setback of 200m from watercourses for your stock containment areas if no other management approach is used.
8. Seasonal and emergency conditions may affect a farm's ability to maintain good ground cover. These situations should be treated as being short-term occurrences and you should actively manage livestock so pasture growth is restored as soon as possible.



Inadequate ground cover on riparian land and waterway-fronting paddocks



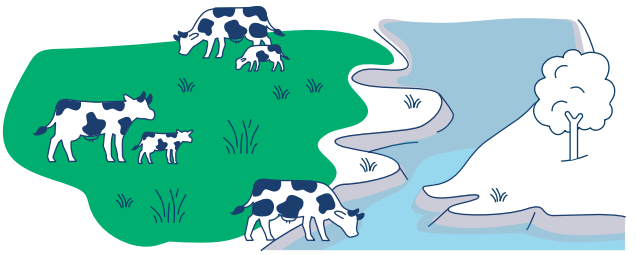
70% to 80% ground cover in the waterway-fronting paddock

2 Unrestricted stock access to riparian land

Good management or control options:

1. As much as practicable, **fence riparian land where there is high risk** of run-off entering a waterway, such as:
   - Where gullies enter waterways
   - Where cattle tracks are developing
   - In low-lying swampy areas
   - In bare, poorly vegetated or rocky areas.
2. Use fencing that:
   - Can either withstand floods or be easily resurrected after floods
   - Is aligned parallel to water flow
   - Is set to a minimum of 20m—or greater for steeper slopes—from the top of the bank.

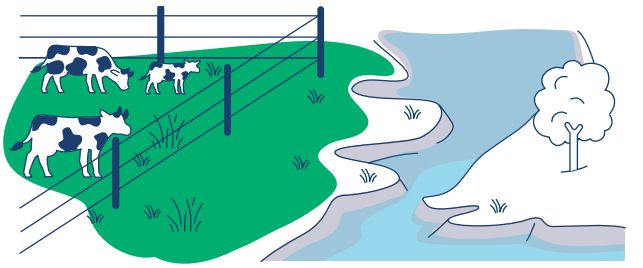
3. Fencing may not be suitable if you're not allowed to access off-take water for your livestock. Install appropriate fencing to maintain animal welfare while looking after the land.
4. Exclude juvenile stock and their lactating mothers from riparian land and waterway-fronting paddocks until the juveniles have been weaned (about 3 to 4 months old).



Juvenile stock and lactating mothers with access to riparian land and waterway-fronting paddocks

This can significantly reduce the number of pathogens entering waterways.

5. Where appropriate, provide off-stream watering points. This will benefit the **health and production of your stock**.

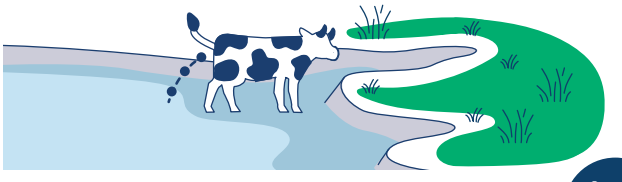


Appropriate fencing manages stock from reaching riparian land

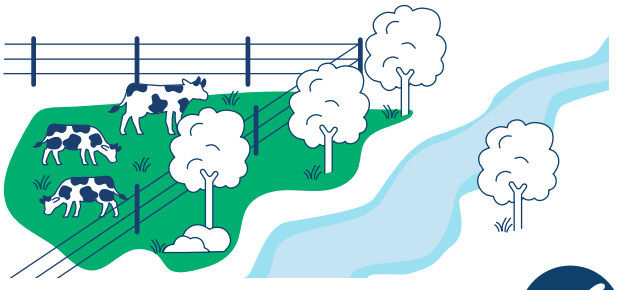
3 Nutrients, sediments and pathogens from animal effluent, fertiliser and stock feed transferring to waterways

Good management or control options:

1. Plant (preferably native) vegetation, or maintain vegetated riparian land at least 10m from the top of the bank for low slopes, or up to 30m for steeper slopes. Do this at key points where water from grazing land would concentrate and run into waterways.
2. Avoid high-risk activities such as feeding stock in waterway-fronting paddocks. When practicable, feed stock where it does not front waterways. Fixed feeding infrastructures within 100m of waterways must have building and work permits issued by local council.
3. Conduct soil tests in paddocks fronting riparian land. Apply fertiliser based on soil test results and pasture composition, ideally minimising application.
4. Manage timing of nutrient applications with respect to soil and weather conditions, rainfall probabilities, and appropriate ground cover density, such as when soil test results indicate deficiency, and there is a suitable weather forecast. Apply appropriately and regularly calibrate application equipment.
5. Try to apply fertiliser and effluent when plant nutrient uptake will be greatest (such as peak growing season) but avoid doing so during irrigation or rain events.
6. Where appropriate, manage livestock to avoid access to waterways except at stable crossing points.
7. Locate and manage stock laneways and unsealed roads to minimise soil movement and erosion. Maintain vegetated land along waterways to capture sediment-laden run-off from stock.



Stock defecating in waterways



Riparian land is fenced and vegetated

Steps to control hazards and risks

The following 4-step risk process is a guide for assessing and controlling risks from your activities. This will help you protect water quality and prevent or minimise harm to the environment and human health, meeting your obligations under Victorian's environmental laws when grazing your cattle.

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1. **Identify hazards**

   What could cause harm or what could go wrong and cause harm to water quality?

2. **Assess risks**

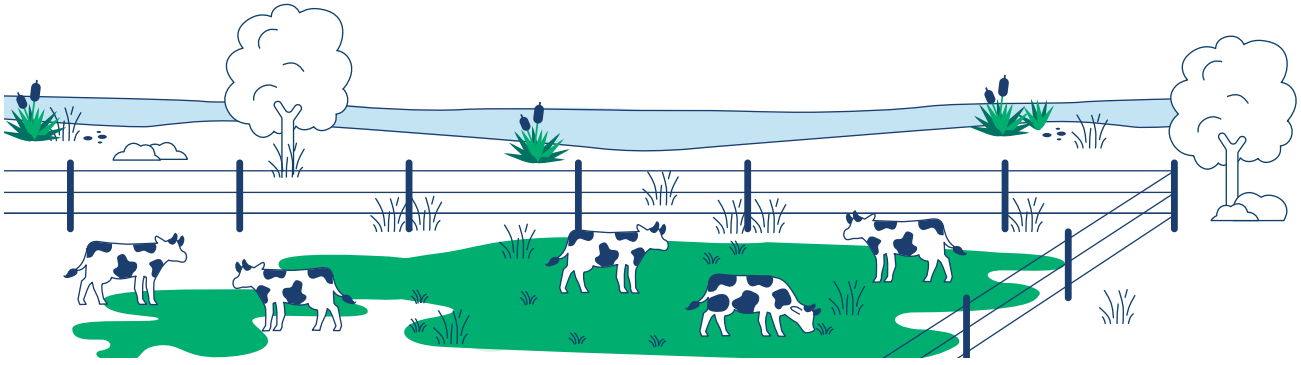
   What is the likelihood of the hazard eventuating? What would be the likely impact of the risk?

3. **Implement controls**

   What can be done to reduce, remove or prevent risks on your farm?

4. **Check controls**

   Make sure your controls are effective for managing risks and the effects they might have.



For more information visit publication ***1695 Assessing and controlling risk***: A guide for business on the EPA website.

The controls you decide to put in place to reduce or eliminate your impact on water quality will depend on the circumstances of your farm.

The information in this guide is not exhaustive. You can put other control options in place, so long as you can show you have eliminated or reduced the risk of harm to human health and the environment as far as reasonably practicable.

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