LANDSCAPE SOUTH AUSTRALIA HILLS AND FLEURIEU

Current Recommended Practice

Fencing a watercourse or on a floodplain

Fencing watercourses supports the natural environment and your on-farm productivity. It improves water quality, enables nutrients to be retained on farm, helps to stabilise banks and soils and creates habitats, shade and shelter. Fencing a watercourse, dam, lake or on a floodplain is a Water Affecting Activity (WAA) under the Landscape South Australia Act 2019.

Purpose of this Current Recommended Practice (CRP)

Under certain conditions, fencing a watercourse, dam or floodplain can cause harm to the environment or impact other water users. However, when carried out in accordance with this CRP, it is considered a low-risk activity. By following the steps outlined here, the Hills and Fleurieu Landscape Board supports you to construct a fence on a watercourse or floodplain without the need for a WAA Permit.

This CRP enables you to:

- Determine if a WAA Permit is required.
- Plan your fencing project in such a way that it can be carried out without the need for a WAA Permit.
- Apply 'best practice' approaches to maximise the benefits from your fencing project.

Step 1 – Permit decision tree

Step 1: Confirm if your property is in the Hills and Fleurieu region. Check this map or refer to Appendix 1

→ **NO** → Speak to your local landscape board

↓ **YES**

Step 2: Will your fencing activities involve any of the following?

- diverting watercourse water
- changing the flow rate
- deepening or widening the watercourse
- destroying watercourse vegetation by excavating or ripping
- construction of a crossing
- depositing material in a watercourse

→ **YES** → A Water Affecting Activity Permit is required.

↓ **NO**

You must plan and undertake your fencing activities in accordance with 'Step 2 and Step 3' of this CRP

Step 2 – Outcomes to be achieved

To comply with this CRP, you must achieve these outcomes during and after fence construction:

- Keep all loose sediment away from the watercourse
- Maintain the direction of flow to prevent erosion within the channel
- Don't cause water to 'back-up' or cause flooding
- Protect the bed and banks of the watercourse to maintain stability
- Retain existing native vegetation
- Incorporate a buffer zone if fencing on each side of a watercourse or around a dam
- Minimise the collection of debris by the fence.

Step 3 – Best practice standards

Planning:

- If you are constructing a fence across a watercourse that divides property boundaries consult with the adjoining property owner and obtain written permission (*Fences Act 1975*).
- Plan materials and determine if experienced contractors are needed.
- Schedule works at an appropriate time, avoiding before/after significant rainfall or flow.

Aboriginal cultural heritage:

- Creeks and rivers of our region bear some of the richest Aboriginal cultural heritage of any landscape feature. In most cases, fencing your watercourse will offer some protection to cultural heritage as well as your creek line. However, activities such as excavation or earthmoving pose a risk to Aboriginal cultural heritage protected in these locations under the *Aboriginal Heritage Act 1988*. Please contact Landscapes Hills and Fleurieu for further advice if excavating or earthmoving near creek lines and floodplains.

Fencing design - keeping a safe distance from watercourses, banks and floodplains:

- Fencing must account for natural movement in a watercourse. This is most critical where the watercourse bends. On a bend, the outside of the watercourse erodes more quickly than the inside. See Figure 1. Where possible fence to follow the natural terrain.
- Keep at least 5 metres (preferably 10) between your fence and the tops of banks of smaller watercourses and at least 10 metres from the banks of larger watercourses. If you are unsure of the of the size and flooding potential of the watercourse present, please contact Landscapes Hills and Fleurieu Landscape Board. See Figure 1.
- Consider fencing on the higher ground above a floodplain rather than 'on' a floodplain.
- Fencing should be designed to withstand water from time to time. Fence posts can move easily in saturated or soft soils, so. use longer posts driven deeper into the ground than traditional fencing, alternatively use lightweight sections designed to break away from the more permanent sections in flood conditions.
- If gates are required, install them as far as possible from your watercourse on high ground. Drop-down or lay-down fencing is a cheap alternative to gates and are useful for emergency vehicle access to creek line areas.
- If you need to fence across a watercourse or secure pets in urban areas, see 'flood gates' below for design recommendations.

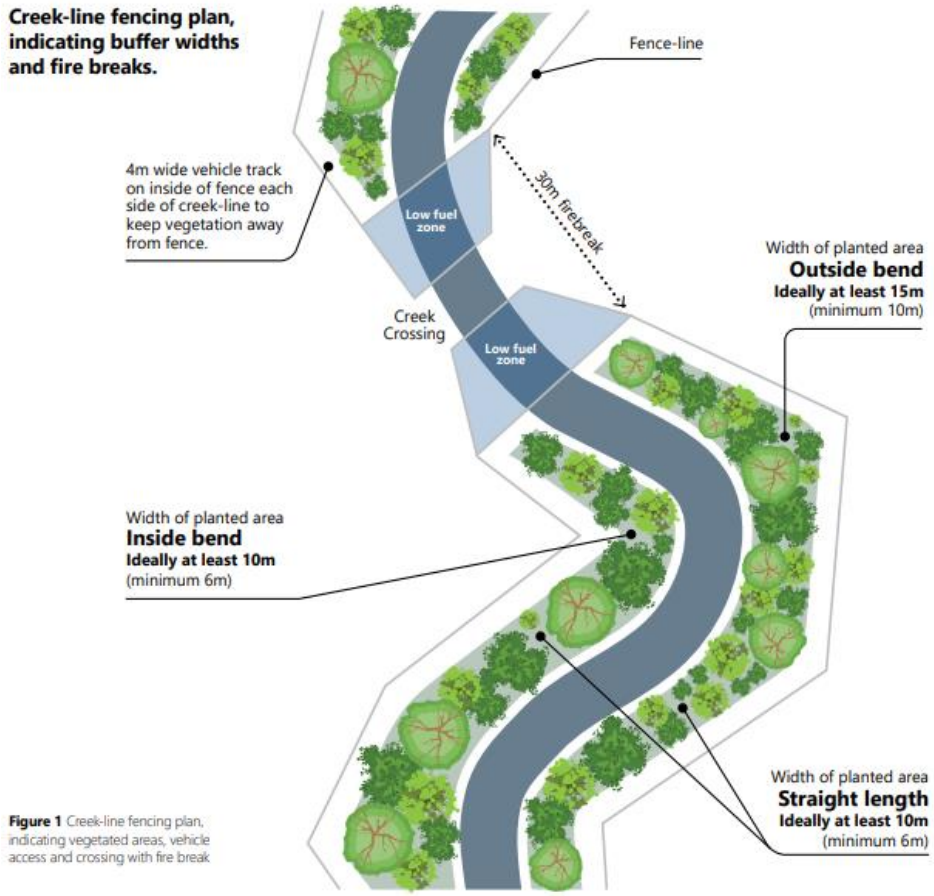


Figure 1 Creek-line fencing plan, indicating vegetated areas, vehicle access and crossing with fire break

Materials to minimise debris:

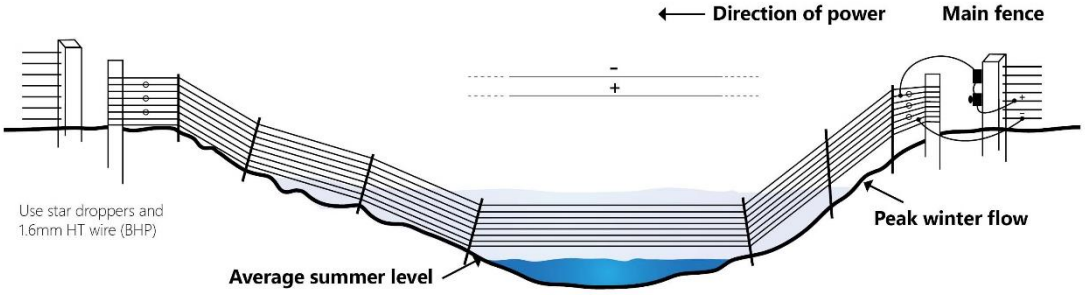
- Use steel, wood or concrete posts.
- Wire type is important to reduce the accumulation of debris along a fence. In flood-prone areas, a six-strand plain or barbed wire fence is better than stock or ring lock fencing, as it allows water and debris to pass through more easily.
- On regularly inundated floodplains consider using treated wooden posts for longevity, creosote-treated posts are more fire-resistant than CCA-treated ones.
- If a separate breakaway is included into the design, hinge joint, ring lock, wire netting or similar may be needed.

Fencing across your watercourse:

- Choose the most appropriate fence to cross your watercourse and property:
- Plain wire is recommended
- Hanging galvanised chains or mesh, or
- Hinged mesh, corrugated iron or plastic flaps.
- Your chosen fence must be 'open' to allow water flow and smaller debris to pass through. Your fence must not obstruct water flow under any circumstances.
- Do not secure fencing materials across the watercourse to the main fence line. It must stand independently - then only this part will be pushed over during periods of high flow. If an electrified fence runs across the watercourse, then a positive and an earth wire need to be hung securely across the watercourse. This ensures a live main fence should the wire be swept away.

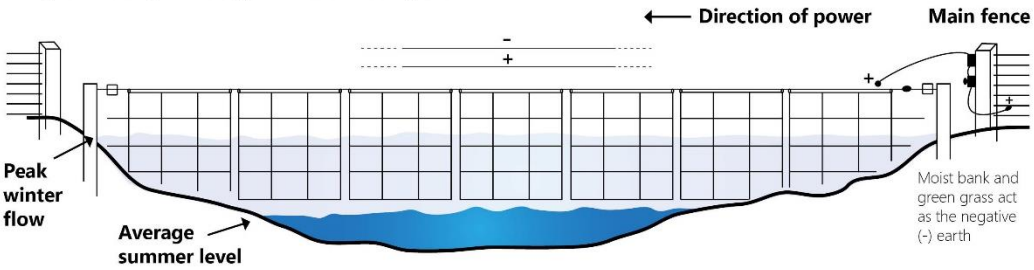
Semi-permanent fencing with easily installed and removed sections

Suited to uneven crossings. Wire each section or couple of sections separately. The joins then become the breakaway points. Hand strain.



Semi-permanent fencing, which can respond to sudden changes in flow

Suited to wide, flat crossings, including fords
Hinged and separated galvanised mesh panels



Construction and Operation:

- Do not start construction after heavy rainfall, high flows or if rainfall is forecast. This is to reduce the risk of damage to your watercourse and floodplain.
- Existing native vegetation is regulated under the *Native Vegetation Act 1991* and must not be removed or disturbed. Check these areas carefully well before works begin. Identify sensitive habitats, like permanent pools and wetlands. Mark exclusion zones or reroute machinery to prevent disturbances.
- Limit machinery use in sensitive areas such as close to watercourse edges or in areas of native vegetation. Confine vehicular movements to paddocks or existing access tracks if possible.
- Machinery cannot operate in the watercourse channel and must be positioned at a safe distance from the banks.
- Machines must be moved 20 metres from a watercourse before refuelling.
- Any excavated material related to the fencing works must be spread evenly on a paddock or stored above the high-water mark or floodplain area.
- Keep the number of droppers to a minimum, to reduce the likelihood of collecting debris.
- Drive your posts into the ground. A driven post will be 1.5 times more secure than a post that has been placed in an oversized hole with the earth rammed back around it.
- Maintain wire tension in regularly inundated areas to minimise debris load.

Monitoring and Maintenance:

- Regularly inspect fences, especially after heavy rainfall, to remove accumulated debris.
- Have spare fencing materials available for quick repairs.

If you are unsure whether you require a Permit, please contact us for assistance.

Hills and Fleurieu Landscape Board
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Appendix 1 – Hills and Fleurieu region map

This current recommended practice applies to properties in the Adelaide Hills and Fleurieu Peninsula as per the map below.