



Figure 1: Stockproof permanent fences, protecting a retired wetland.



Figure 2: An electric fence can suffice to exclude stock from a retired streambank, and protect trees inside.



Figure 3: Light-construction bank retirement fence.

INTRODUCTION

What kind of fence to build on a streambank, will be influenced by whether the fence is going to form part of paddock subdivision for grazing, or is specifically to protect the bank, along with what kind of stock is being grazed. Affordability will also affect the type of fence constructed.

This leaflet outlines a number of options which keep costs down.

TYPES OF FENCE

A standard fence design - timber posts at 3 to 4m spacings, and 6 to 8 wires with attached battens (Fig 1) - is the best kind of fence for stock control on streambanks.

If grazing goats, deer or something more exotic that likes to jump fences, then a permanent post and batten fence, constructed to a height that will act as a barrier, will definitely be needed.

An electric fence is next-best. Many dairy farmers already use moveable fences with a single hot wire or electric tape on streambanks, as part of break-feeding. More substantial fences with permanent posts and either two hot wires (for cattle) or four (for sheep) generally give satisfactory stock control (Fig 2).

In Australia, many landcare groups report that they achieve good stock control on streambanks with fences that are lighter in construction than is the case in New Zealand. Typically, timber posts or iron fencing standards are used at 5 to 10m spacings, with four wires (two electrified) for sheep or two wires (one electrified) for cattle. No battens are used, adjustable tensioners instead maintaining each wire at a high tension. Some Taranaki farmers are already using this type of fence (Fig 3).

As regards the finer points of fence construction, farmers already know these from years of experience. Lifestyle block owners, new to the land and not too sure, can consult the Lifestyle Block website for information on conventional fences (lifestyleblock.co.nz). For electric fences,

several good guides have been published by component manufacturers.

DESIGNING THE LAYOUT

Streambank fencing can be a lot better value for money if it has a dual function - not just keeping stock out of the stream, but improving the farm's subdivision for grazing management and stock movement.

Design a fencing layout that will help grazing management, not hinder it. Can the new fence subdivide an existing paddock into two, creating a better rotation? Can the streambank fence be one side of a new race, that enables stock movement directly between paddocks instead of through half a dozen? Can its retired margin be sufficiently wide to trap soil and dung from the race, before it gets into the stream?

When retiring the bank from grazing permanently, a gate won't be needed, but it's a good idea to have removable wooden rails at one point, so that if stock accidentally get in, they can be easily removed.

Where a streambank fence has to be breached by a crossing, so that stock can be shifted across the stream, a permanent stock bridge or culvert is preferable (Fig 4). If this is not affordable, a concrete stock crossing is an alternative which can reduce pugging of the stream bottom, though it needs to be constructed so as not to impede flow or fish migration. A hanging fence or floodgate (Fig 5) will be needed to stop stock from wandering along the



Figure 4: A culvert with fenced sides is a good alternative to an expensive bridge.

For further advice or information about sustainable land management contact:

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banks. Remember to apply to the Regional Council for a resource consent, before erecting any kind of structure in a stream.

If a fence is frequently inundated, and there is a risk of it being broken by the force of floodwater or build-up of lodged debris, it needs to be flood-proofed. Hanging fences, as in Figure 5, are one way. The panels hinge upwards as the water level rises. They can even be electrified, so long as there is a cut-off switch to prevent the entire circuit from shorting when water contacts the panels. Another option is to attach the fence wires to battens, held to posts by light wire loops. The loops break under the strain of floodwater, collapsing the fence, which can be re-erected after the flood.



Figure 5: A light electrified floodgate is less likely to obstruct debris or be swept away, than a solid floodgate constructed from timber or corrugated iron.

WHERE TO GET MORE ADVICE

Taranaki Regional Council provides a free advisory service for landowners wishing to fence streambanks. This service includes site visits, assistance with design, and information about sources of materials.

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