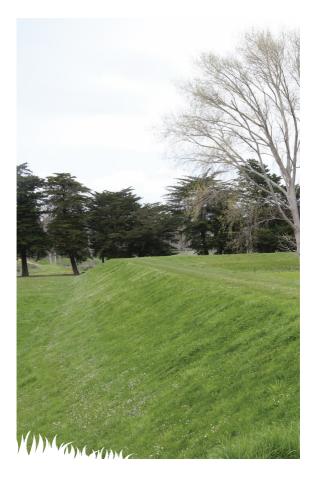




STOPBANK GRAZING RULES

Horizons Regional Council is responsible for maintaining the river systems in the Manawatū-Whanganui Region to minimise erosion and ensure optimum flood protection. We take that responsibility seriously. Stopbanks are our primary flood protection tool and we own (on behalf of our ratepayers) almost 420km of them.

Our stopbank inspection programme shows some stopbanks are not in the condition necessary for optimal flood protection and we plan to rectify this, particularly by promoting improved grazing practices and vegetation management.



WHY LOOK AFTER THEM?

Stopbanks are the last defence against floodwaters in many locations throughout our region. They ensure the safety of thousands of people and protect property worth billions of dollars from damage.

The climate is changing and predictions are that floods will become larger, longer and more frequent, which will test our stopbanks like never before. A property with a stopbank that has stock tracking, bull holes and no grass cover will have a higher chance of being flooded than a property with a well grassed, symmetrical shaped stopbank.

HOW DO STOPBANKS BECOME DAMAGED?

Damage typically occurs by animals that dig and root at the ground, and even grazing when the ground is saturated can cause severe damage. While damage from a single incident may be relatively minor, all damage is cumulative and becomes very difficult to effectively repair.

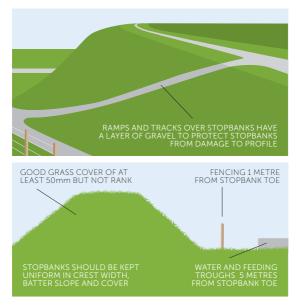
STOPBANK FAILURE MAY ARISE FROM:

- The river overtopping at a low spot caused by frequent stock (or vehicle) movement, resulting in accelerated erosion and ultimately stopbank failure.
- The river overtopping on a section narrowed or steepened by stock tracking on the land-side, causing scouring and ultimately failure.
- Development of a seepage path through a narrowed or weakened section resulting from stock digging or camping. Seepage can lead to the development of a 'pipe' and ultimately to failure.
- Erosion of a pugged or poorly vegetated stopbank slope on the river-side during prolonged high river flows, ultimately leading to failure.

Other causes of damage include vehicle tracking on the crest or at crossings; poorly managed or 'rank' grass growth causing irregular flow and scouring along the river batter (river-side slope); and localised embankment scouring from inappropriately located fences, ramps, water troughs etc.

The best management option for stopbanks is total exclusion of stock and regular mowing or harvesting of grass. But in most situations, this is neither practicable nor affordable.

As a practical and common sense approach to the issue, we have developed some rules to keep our stopbanks in a good condition.



SCHEMATICS OF OPTIMUM STOPBANK CONDITIONS

WHAT DOES A GOOD STOPBANK LOOK LIKE?

A GOOD STOPBANK HAS:

- A uniform cross section, with a 3-4m crest width and batter slopes no steeper than two horizontal to one vertical (it will take a long time for the bank to scour if overtopped).
- A uniform height so that overflow will be evenly spread and shallow.
- No bare soil, with uniform grass cover not less than 50mm. Grass cover is very effective at reducing soil scouring.
- No obstruction to flow by troughs, trees, plant pests, or rail fences in close proximity to the embankment that could generate localised scouring.
- No holes or deformities that could lead to piping.
- Well metalled and maintained vehicle or stock crossings to prevent low spots forming.

GRAZING OF STOPBANKS

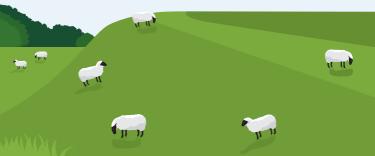
To minimise damage, Horizons will allow light controlled grazing of stopbanks by stock that do not dig or root at the ground.

WE WILL ALLOW:

- Grazing by sheep and cows during firm ground conditions from 1 October to 31 May.
- Carefully controlled grazing of grass cover to a minimum of 50mm.

WE WON'T ALLOW:

- Any stock grazing from 1 June to 30 September unless by written approval.
- Any stock grazing when the soil is soft following prolonged rainfall.
- Holding or grazing cattle on stopbanks during flood events.
- Any feeding out of supplementary feeds on stopbanks.
- Stock feeders or water troughs located on embankments or within 5m of the riverside toe.
- Grass cover less than 50mm.
- Mob stocking or break feeding on embankments.
- Construction of crossings without approval.



WHAT WE EXPECT OF YOU AS A LESSEE OR LANDOWNER

As a key river scheme stakeholder, we expect that you will have a vested interest in the maintenance of a high standard of flood protection and keeping maintenance costs as low as possible.

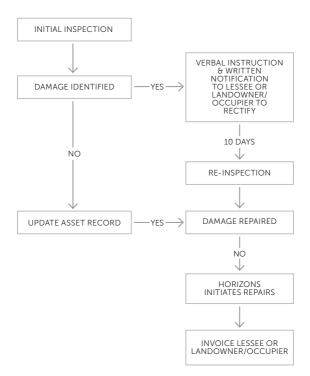
We expect that you will manage the stopbanks on your property according to these Stopbank Grazing Rules and will promptly inform the scheme manager of any stopbank deficiencies you observe. In the unlikely event that it becomes necessary to issue a 'Notice to Rectify', we expect you will comply with the terms of that notice.

WHAT ARE HORIZONS' RESPONSIBILITIES?

Horizons Regional Council has a responsibility under various statutes, in particular the Resource Management Act 1991 and associated Regional Plans and the Soil Conservation and Rivers Control Act 1941, to manage the flood risk throughout the Manawatū-Whanganui Region.

In meeting our functions and responsibilities, we are able to build and maintain flood protection structures. Under the statutes, it is an offence for any person to damage structures that exist for the purpose of providing a defence against water. Additionally, Horizons has the power to enter properties to carry out remedial works and to charge the occupier for the costs of those works.

To ensure that stopbank damage is rectified as quickly as possible, we have developed a process that allows up to 10 days for a landowner to complete verbally agreed repairs, before a formal 'Notice to Rectify' is issued. If repairs are not completed within a further 10 days of the issue of notice, we will initiate the work ourselves and will invoice the landowner for costs involved.



Horizons Regional Council is committed to providing the wider community with the highest possible level of flood protection and is seeking your co-operation as an owner or occupier of land on which a stopbank is sited, with the implementation of these Stopbank Grazing Guidelines.

Working closely and co-operatively with landowners on this issue is preferable, and our inspectors are happy for landowners to accompany them on their inspections however as a last resort, we are able to use statutory powers to ensure that the wider community has the protection it is entitled to.





For more information visit **www.horizons.govt.nz** or freephone Horizons on **0508 800 800**



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