

# Regional Fresh Water Plan - rules which affect farm activities in riverbeds

Sustainable Land Management Programme

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## Introduction

The Taranaki Regional Council has a statutory duty to protect the region's water resources and aquatic environment. Its Regional Fresh Water Plan summarises water management issues in Taranaki, and the council's policies for addressing the issues. Policies are implemented through rules in the Plan. They relate principally to taking water out of rivers and streams, or discharging effluent into them, or damming and diverting their natural flow. A few of the rules relate specifically to land management near watercourses, or to farm activities which impinge on channels, such as bridges, culverts or stock crossings.

The Council has prepared this information sheet as a summary of the rules which may occasionally affect activities carried out in riverbeds on the farm.

## Access structures

Bridges, culverts and stock crossings are subject to Rule 57. They are permitted activities where:

- Cross-sectional area of the river bed on or over which the culvert, ford or bridge is to be placed (measured from the top of each bank) is no greater than 10m<sup>2</sup>
- Structure shall not alter the natural course of the river nor reduce channel capacity to convey flood flows
- No significant scour, erosion or deposition results from placement of the structure
- Structure shall not restrict the passage of fish
- Excess construction materials shall be removed from the bed
- Sediment disturbance shall not conspicuously change the visual clarity of the water beyond a zone of reasonable mixing
- There shall be no significant adverse effects on aquatic life or instream habitat
- Disturbance of the bed shall be the minimum necessary to carry out the required works
- No contaminants shall be released to the river bed from equipment being used for the activity, and no refuelling of equipment shall take place on any area of the river bed
- Between 1 May and 31 October there shall be no disturbance of any part of the bed covered by water

- The Council shall be informed that the placement of the structure is to occur, at least two working days prior to the commencement of works
- Culvert is not greater than 1 m in diameter, with no more than 1 m of fill over the culvert
- Culvert is not greater than 25 m in length
- Ford raises the level of the bed no more than 0.3 m
- Bridge has no abutments or piers fixed in or on the bed
- Bridge soffit is placed level with or above adjoining ground level at the top of the bank

What this means is that farmers are free to construct small bridges, culverts and stock crossings, so long as construction does not significantly disturb the stream, and so long as the structure does not create adverse effects on the channel either downstream or upstream. These are **permitted activities**.

If a new bridge, culvert or stock crossing exceeds the dimensions stated, or if its construction is going to significantly disturb the stream, or if there is a risk that it will cause scour/erosion/deposition, then it will not comply with Rule 57. If a farmer thinks this may be the case, he/she should ask the Council's River Control Officer to make a site inspection. The RCO will confirm whether the new structure is a permitted activity, or **non-complying**. If the latter, then the farmer must apply to the Council for a resource consent. Consent will generally be granted, subject to the applicant supplying a design which indicates the structure will be safely constructed, so as to minimise the risk of failure or adverse effects on the channel.



Figure 1 Farm dam

## Plants

The removal and planting of vegetation in river beds are governed by Rules 65, 66 and 68.

Rule 65 allows the removal of vegetation for the purpose of river and flood control as a **permitted activity** provided that:

- Vegetation removed must be completely removed from the bed
- Disturbance of the bed is the minimum necessary to carry out the works
- Removal of vegetation does not have significant adverse effects on aquatic life and instream habitat
- Sediment disturbance shall not conspicuously change the visual clarity of water beyond a zone of reasonable mixing

Rule 66 allows the trimming and clearance of vegetation, associated with the safe operation of bridges, pipelines, cableways, transmission and telecommunication lines. Provided that the above conditions are met and additionally:

- No contaminants shall be released to the river or lake bed from equipment being used for the activity, and no refuelling of equipment shall take place on any area of the river or lake bed;

then vegetation trimming is a **permitted activity**.

Any planting, introduction or removal of vegetation from within the bed of a river or lake that is not provided for or does not meet the conditions of Rules 65-67 is a **discretionary activity** under Rule 68.

What this means is that farmers are free to remove willows or other tree debris from streams, provided the job is done with a minimum of disturbance to the streambed. If it looks like the job is going to be a complicated one - for instance, substantial excavation of the bed by machinery - then it is unlikely to meet the conditions of Rule 65, and is therefore a **discretionary activity** under Rule 68 and farmers are obliged to apply for a resource consent before undertaking the work. The Council's River Control Officer will undertake a site inspection, and advise about ways to mitigate effects on the channel. Generally this entails site restoration i.e. restoring the channel as close as possible to the shape it was, before contractors' machinery leaves the site. A requirement to do this will be attached as a condition of the resource consent.

Note that the Regional Fresh Water Plan applies to river beds, defined in the Resource Management Act as the space of land which the waters of the river cover at its fullest flow without overtopping the banks. The Plan does not in any way restrict farming activities adjacent to a river bank. Farmers can graze

stock, clear vegetation, and plant or harvest trees to the top of the bank. However, if these activities are not carried out with due care, they can cause sediment, dissolved chemicals - such as fertiliser or pesticide - and animal waste to enter waterways. By depleting grass cover or removing tree roots, they can expose a stream's banks to erosion during floods. They can also harm aquatic habitat by removing shade, raising water temperatures and disrupting in-stream chemical processes so that the stream becomes a poor habitat for fish and invertebrates.

The council's policy is that farmers should be free to carry out normal farming activities adjacent to the banks of streams, rivers and lakes, provided they exercise due care. The Council offers assistance with:

- Preparing plans for management of riparian margins on farms
- Supplying plants at cost, to farmers who are prepared to fence off and retire their riparian margins.

The council's Land Management Officers are available for site visits and discussions about what is possible.

## Extraction of sand and gravel

Rules 70 states that extraction of sand or gravel from the bed of a river for domestic or on-farm purposes is a **permitted activity** so long as :

- Sand or gravel is for private use on the property from which it is extracted
- Quantity of bed material extracted is no greater than 15 m<sup>3</sup> per year
- Disturbance of the bed shall be the minimum necessary to carry out the required works
- Between 1 May and 31 October there shall be no disturbance of any part of the bed covered by water
- Sand or gravel is extracted from an area of the river bed not covered by water at the time of extraction
- Area from which sand or gravel is extracted is levelled out so that no mounds or depressions remain

Rule 71 allows extraction, or re-contouring of the bed for flood and river control purposes carried out by or on behalf of the Council, as a **permitted activity** subject to the above conditions and also:

- Extraction or recontouring must not restrict the passage of fish
- There shall be no significant adverse effects on aquatic life or instream habitat
- The Council shall be informed that the works are to occur, at least two working days prior to the commencement

Rule 72 makes extraction of sand, gravel or rocks from a river that does not meet the conditions of Rules 70 and 71, a **discretionary activity**.

Rule 73 makes extraction for purposes other than those specified in Rules 70 and 71, a **prohibited activity**.

This means that farmers' ability to extract gravel from rivers is restricted to about three truck-loads a year. Any more, for on-farm use, is a discretionary activity and needs a resource consent. Any extraction other than for on-farm use is prohibited. The reason for these restrictions is that if every farmer along a stream mines as much gravel as he or she likes, bed sediment available for the stream to transport becomes less than its water flow is able to carry. Where this happens, the stream will start to erode its banks, until it achieves a new balance between flow and sediment load.

### Clearance of debris

Farmers occasionally clear fallen trees, flood-deposited logs, or other debris from channels, to remove impediments to passage of floodwater. Rule 69 allows clearance or removal of debris from the bed of a river for the purpose of river and flood control, provided that :

- Debris shall not include sand, gravel or other bed material
- Debris cleared must be completely removed from the bed
- Disturbance of the bed shall be the minimum necessary to reduce the threat of flooding or erosion to an acceptable level
- Between 1 May and 31 October there shall be no disturbance of any part of the bed covered by water
- Activity shall not alter the natural course of the river
- No erosion, scour or deposition shall result from the clearance
- There shall be no significant adverse effects on aquatic life or instream habitat

Farmers are free to remove debris from rivers and streams as a **permitted activity**, provided bed disturbance is minimised.

If a farmer thinks that debris removal will cause channel disturbance, then he/she should ask for a site visit by the River Control Officer. The RCO will advise whether it can be removed without significant disturbance. If not, removal is a **non-complying activity**, and needs a resource consent.

### Land drainage

Farmers frequently dig drains or mole-plough low-lying paddocks. These activities divert water into streams, through man-made flow paths. Rule 77 allows diversion of water for the purpose of land drainage, subject to the following conditions:

- Area of land drained shall be no greater than 10 hectares
- No wetland over 5ha is to be drained
- Drainage shall not cause flooding of downstream or adjacent properties
- No significant erosion, scour or deposition shall result from the diversion or associated discharge
- Drainage channels are no greater than 300 mm in diameter, or 4m<sup>2</sup> in cross-sectional area
- There shall be no significant adverse effects on aquatic life or instream habitat
- No wetland listed in Appendix III of the Regional Fresh Water Plan is to be drained

Rule 78 allows the construction, use and maintenance of drainage channels, subject to additional conditions:

- Drainage channel shall be constructed or maintained for the purpose of carrying out drainage activities permitted under Rule 77
- Activity shall not cause significant adverse effects on aquatic life or stream habitat
- Disturbance of the channel shall be the minimum necessary to carry out works
- Activity shall not cause flooding of downstream or adjacent properties

Farmers are relatively free to drain land as a **permitted activity**, provided they keep within the restrictions on area to be drained and drain size, and provided the water is discharged into a stream at a point where it does not flood neighbouring land.

In the unlikely event that a farmer wishes to drain more than 10 hectares of land at once - and therefore needs larger drains, discharging greater volumes of water - drainage becomes a **discretionary activity** (Rule 79). He must apply for a resource consent, which may or may not be granted, depending on the extent to which the proposed drainage will impact on neighbours and the environment generally.

Note that Rule 77 does not allow drainage of land covered by Rules 80 to 87, which restrict drainage, or diversion of water from, or discharge of water or contaminants into, a regionally significant wetland.

### Channel straightening

Farmers sometimes re-shape or re-align small streams with earthmoving machinery, to reduce

flooding or erosion of their paddocks, or to improve drainage. Rule 74 permits realignment or modification of a stream or river in the following circumstances.

- Catchment area upstream is no more than 25ha
- Drainage channel shall be no greater than 4m<sup>2</sup> in cross-sectional area
- Length of stream or river to be re-aligned or modified shall not exceed 200 metres
- No significant erosion, scour or deposition shall result, or be liable to result, from channel modification
- Realignment or modification shall not restrict the passage of fish
- Realignment or modification shall not cause flooding or erosion of downstream or adjacent properties
- Disturbance of the bed is the minimum necessary to carry out the required works
- There shall be no significant adverse effects on aquatic life or instream habitat
- The Taranaki Regional Council shall be informed that the realignment or channel modification is to occur, at least two working days prior to its commencement

Farmers are relatively free to re-align or re-shape small streams flowing through their properties i.e. converting them to drains is a **permitted activity**, so long as the drainage channel is no greater than four square metres, and that no more than 200 metres of channel is realigned or modified in total.

If a farmer wishes to undertake realignment of a bigger channel, or of a greater length along a small channel, these are not covered by Rule 74 and fall under Rule 76 which defines them as **discretionary activities** requiring a resource consent.

### Concluding remarks

This information sheet should provide an idea of which rules in the Regional Fresh Water Plan affect day-to-day farming activities.

The key message is that the Plan impinges on very few farming activities - just those that entail working in the bed of a river or stream. The Plan's rules allow farmers to undertake activities such as tree clearance, debris removal, drainage, and small channel re-alignment as of right, provided they take precautions to minimise any impacts on flooding or erosion or aquatic habitat.

With regard to farming activities on land adjacent to rivers and streams - principally the grazing of stock on, or the clearance of vegetation from, riparian margins - the council's policy is not to restrict what farmers do, but to encourage better management. Considerable assistance is available, by way of site visits, riparian plans, supply of plants at cost, and help with any major problems that may have off-farm effects.

For further advice or information contact:

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