

Fresh Water Plan rules which affect farm dams

Sustainable Land Management Programme

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Introduction

Most Taranaki farms have dams on small watercourses, for water supply, effluent treatment or fishing and shooting. Dams constructed prior to the Water and Soil Conservation Act of 1967 are existing uses which do not need to have a consent, unless they are re-constructed. If this happens - or if a new dam is constructed across a watercourse wider than 3 metres - the law requires the dam's owner to obtain a resource consent.

The reason for this requirement, is firstly that dam construction entails earthworks. Disturbance of a channel's bed or banks sends sediment downstream; a large quantity may impact on the stream's water quality and value as wildlife habitat.

A dam once constructed and filled, alters stream grade. It may cause floodwater to pond upstream, adversely impacting on a neighbour's low-lying land.

If a dam isn't well-constructed, there's a risk it may be weakened by water seeping through the structure. If it bursts, a wall of water sweeps downstream, scouring the channel, eroding farmland, and damaging property.

The Council is the agency with statutory responsibility for issuing consents to dam watercourses. Its **Regional Fresh Water Plan for Taranaki** sets out the circumstances where a consent is needed, and the procedure for applicants. Generally the engineer or contractor engaged by a landowner to design and construct the dam, is the person who must consult this document.

Council has prepared this information sheet :

- to indicate when a consent is - or isn't - needed for small dams on the farm
- as a summary of the key features its staff look for, when they evaluate a resource consent application.

Knowing these, will help landowners decide what kind of design will be appropriate and affordable. This can be particularly useful before engaging in discussions with an engineer or contractor.

Existing dams

Use of existing dams is a **permitted activity** so long as they meet the following standards.

- The use is not specifically provided for by a rule in the Fresh Water Plan
- The structure was lawfully established and in use at the date of public notification of this plan
- The structure must not restrict the passage of fish
- There shall be no significant adverse effects on aquatic life or instream habitat

What this means in practice, is that there's no need to apply for a consent to operate an existing dam.

Maintenance, repair, reconstruction or minor upgrading of a dam

Is a **permitted activity** so long as :

- The activity is for the purpose of maintaining the structure in good repair or working order or for minor upgrading
- No contaminants shall be released to the river or lake bed from equipment
- Sediment disturbance shall not give rise to a decrease in visual clarity of water of more than 50% beyond a zone of reasonable mixing
- There shall be no significant adverse effects on aquatic life or instream habitat
- All material removed from the structure and excess construction material must be removed from the bed.
- Water diverted from the structure, for the purpose of carrying out the activity, shall be for a period of no more than 48 hours
- Disturbance of the bed is the minimum necessary to carry out the required works

What this means, is that a farmer can carry out repair work on existing dams, provided downstream disturbance is minimal.

Removal, demolition or decommissioning of a dam

Is a **permitted activity** provided that :

- There shall be no use of explosives in the water
- Removal must not alter the existing level of the bed by more than 500 mm in vertical height

- Structure, or part of the structure being removed, must be completely removed from the bed
- The structure is not on or in an area listed on the Heritage Protection Register or an identified Waahi Tapu
- No significant erosion, scour, or deposition results from the removal or demolition of the structure.
- Disturbance of the bed is 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
- No contaminants shall be released to the river or lake bed from equipment
- Sediment disturbance shall not conspicuously change visual clarity of water beyond a zone of reasonable mixing
- There shall be no significant adverse effects on aquatic life or instream habitat
- All material removed from the structure and excess construction material must be removed from the bed.
- The Taranaki Regional Council shall be informed that the removal or demolition activity is to occur, at least two working days prior to its commencement

What this means, is that an existing dam can be removed provided it's a small one, due care is taken, and the Council is notified beforehand.

If the dam is higher than 0.5 metres, its removal is a **controlled activity** i.e. the owner must apply to the Council for a consent. Consent will generally be granted, subject to conditions which will minimise downstream disturbance.

Construction of a dam, weir, bed level control or silt retention structure

Is a permitted activity i.e. doesn't need a consent, so long as :

- Structure has a maximum wall height of not more than 3 metres
- Catchment area upstream is not more than 25 hectares
- Structure must have an auxiliary spillway which is capable of conveying flood flows
- Structure must not impound water beyond the property on which it is built, unless agreed to in writing by any affected property owners
- No water takes for domestic use, stock watering, fire fighting, or any other take authorised by a resource consent, shall be

restricted by the construction, placement and use of the structure

- Structure must not alter the natural course of the river nor reduce channel capacity to convey flood flows
- No significant erosion, scour or deposition shall result from placement of the structure
- No contaminants shall be released to the river or lake bed from equipment
- Excess construction material shall be removed from the bed.
- 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
- Sediment disturbance shall not conspicuously change visual clarity of water of more than 50% beyond a zone of reasonable mixing
- There shall be no significant adverse effects on aquatic life or instream habitat
- Structure shall not restrict the passage of fish
- The Taranaki Regional Council shall be informed that the placement of the structure is to occur, at least two working days prior to the commencement of works

What this means in plain language is that new farm dams can be constructed, so long as they aren't more than 3 metres high, and don't have a catchment area greater than 25 hectares.

Anything bigger is a **discretionary activity** i.e. the farmer needs to apply for a resource consent, because the dam will have more than minor adverse effects on the environment. The Council will grant a consent if the application demonstrates that the dam will be constructed and operated in a way which remedies or mitigates those effects.

Applying for a consent

The application must include :

- Contact details of applicant
- Location and address of affected site
- A list of all other consents needed, and reference numbers of any previous consents acquired, for the proposed dam
- A list of names and addresses of property owners likely to be directly affected
- A description of the proposed work :
 - reason for which the river or lake bed is to be used
 - indication of the state of completion of the project
 - design specifications

- map reference of site
- accurate location and site plan, including scale, showing position of works, local named roads, north point, boundaries and other relevant features
- Legal description of land at the site

You must always supply this information, as a minimum which enables the application to be assessed. In addition, you must apply an assessment of effects on the environment. For this, the Fresh Water Plan requires:

- A description of the proposal
- A description of any possible alternative locations or methods
- an assessment of the actual or potential effects on the environment of the proposed activity
- where the activity includes the use of hazardous substances and installations, an assessment of any risks to the environment which are likely to arise
- where the activity includes the discharge of any contaminant, a description of the nature of the discharge and the sensitivity of the proposed receiving environment to adverse effects; any possible alternative methods of discharge, including discharge into any other receiving environment; a description of the mitigation measures to be undertaken and any response to the views of those consulted
- an identification of those persons interested in or affected by the proposal, the consultation undertaken, and any response to the views of those consulted
- where the scale or significance of the activity's effects are such that monitoring is required, a description of how, if the proposal is approved, effects will be monitored and by whom.

Clearly many of these provisions relate to construction of large dams or other big structures in riverbeds; not the small dams that farmers are likely to build. For a farm dam, a reasonable level of detail would be :

- How far upstream water will pond; will it affect the neighbour's land?
- Is the dam's spillway big enough to pass a 20-year flood? Has the spillway outlet been designed to avoid bed scour and bank erosion immediately downstream?
- Will water be taken from the dam during dry weather, at a rate which reduces downstream flow below the minimum needed to supply downstream water rights or maintain in-stream habitat?

- Will any effluent or pollutant be discharged into the pond? If so, how will it be treated to minimise pollution?
- Will the dam have a fish pass?
- Will its pond drown any rare streambed habitat or riparian vegetation?
- How will discharge of sediment and other contaminants be minimised during its construction?
- What measures will be undertaken to restore riparian habitat around the dam and pond, once construction's complete?
- Will dam construction and operation affect any neighbours? If so, have they been informed; and has the design been modified to allay their concerns?

Concluding remarks

This information sheet should help landowners realise that operation, maintenance and repair of existing farm dams are permitted activities which can be carried out without a consent, so long as they meet the standards listed.

If operation, maintenance or repair cannot meet these standards, then owners must apply to the Taranaki Regional Council for a consent. The Council will always grant a consent, but may impose conditions to safeguard the environment.

Reading the information sheet will also help to decide whether construction of any proposed new dam is small enough to be a permitted activity .

If not, then apply to the Council for a consent, supplying an assessment of the dam's environmental impacts and how they will be handled. The Council will usually grant a consent for a new farm dam, provided any environmental impacts from its construction and operation are dealt with in a sensible manner.

The Council's River Control Officer is available for site inspections and advice about likely impacts on the river environment. Land Management Officers are available to advise about the impact on riparian margins, and how to restore them. Application details may be sought from Officers in the Consents Section.

For further advice or information contact:

*The River Control Section, or
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