Dairy farm effluent – the rules for achieving compliance on the West Coast

West Coast dairy farmers are proud of the environment in which we farm. As a community we need to take responsibility for ensuring we can continue to farm sustainably. We have an internationally-recognised premium dairy brand which we need to promote and protect.

This checklist is to give you confidence that you can pass a West Coast Regional Council compliance inspection. The checklist is for your own information and you do not need to share it with any other party if you do not wish to.

Westland Milk Products welcomes the opportunity to work through these checklists with you if you have any concerns or questions.

We recommend you follow up boxes that are not ticked as soon as possible. Contact details for support are listed at the back of the checklist.

Key points for compliance:

- Please make yourself familiar with your individual consent conditions (If you don't have your copy, ask Westland Milk Products or the West Coast Regional Council (WCRC) to order one for you)
- You must remain compliant 365 days of the year
- Ensure you have a contingency plan for breakdowns, weather, staffing issues or anything that might compromise your effluent system
- Make sure all your staff know all the rules and are trained in the operation of the system and know what to do when something goes wrong
- Always aim for good practice rather than just achieving compliance.

Note: Please see the relevant rules from the Proposed Regional Land and Water Plan for West Coast for exact rule wording if required ref Rules: 72,73,75,76, (Brunner catchment: 88, 18, 15, 74, 11, 87).





Westland Milk Products Hokitika-New Zealand Genuine New Zealand Dairy



West Coast checklist

Permitted Activity rules and good practice tips for effluent management.

If permitted activity rules cannot be met, a resource consent is required.

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Farm consents are current, and the number of cows being milked is within the limit specified on the consent Note: if you do not have a copy of your consent, please contact WMP or the WCRC who can get a copy for you

Good practice: Stormwater from buildings is diverted away from the effluent system

(i.e. guttering leads to a stormwater drain or holding tank, no leaks in spouting).

Tip: Minimise the amount of water going into your effluent system to reduce the amount of effluent you need to manage, especially during winter.

Good practice: Clean stormwater from the dairy yard is diverted away from the effluent system (before entering the stone trap), but effluent contaminated stormwater is never diverted to freshwater.

Concentrated effluent from all sources is captured within an effluent treatment system (i.e. dairy, yard, feed pad, concreted raceways etc)

Sumps and gravel traps are sealed and are designed so that any overflows are directed into the effluent system Note: Sealing requires construction with non-permeable material

Good practice: Gravel traps and sumps are regularly cleaned out.

Good practice: Solids removed from feed pads and gravel traps and other areas are stored on a contained, sealed surface which drains back into the effluent system.

Good practice: There is enough contingency storage to ensure effluent is not irrigated during periods when soil is saturated (or likely to be, due to forecast of heavy rain). For more information refer to A farmer's guide to managing farm dairy effluent.

All practicable steps¹ are in place (fences, guards, shields, signs, farm inductions and briefings) to ensure the safety of people around effluent system

Land application of effluent

A Permitted Activity except in the Lake Brunner Catchment² where it is a Controlled Activity³

Tip: Pumps, pipelines, hydrants, connections and irrigators are all well maintained and managed.

Tip: Effluent applicator has been well maintained, including areas such as; tyre pressure, lubrication, nozzle condition, hoses. For more information refer to A staff guide to operating your effluent irrigation system – travelling irrigator and A staff guide to operating your effluent irrigation system – low rate irrigator.

Effluent is not applied within 50m of any well or bore used for potable water supply and there are no adverse effects on any water take for human consumption

Effluent is not applied within 20m of any surface water body

Effluent is not applied within 20m of any drain with flowing water

Effluent is not applied within 20m of any adjoining property

There is no runoff of effluent to surface water bodies, drains, or coastal water

Note: A drain excludes hollows of humped and hollowed land unless they contain water at the time of the discharge

There is no ponding or visible surface flow of effluent, or pasture burning

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The application rate from any combination of agricultural effluent is at a rate not exceeding the equivalent of 200kgN/ha/year, and shall not exceed 20mm depth per application	
<i>Tip:</i> DairyNZ has tools explaining how to measure application depth and nutrient loading. For more information refer to A farmer's guide to managing farm dairy effluent.	
There are contingency measures in place to ensure the above conditions are met in the event of a pump or other system failure, or unsuitable soil conditions (see Management, maintenance, people and contingency section below)	
Management, maintenance, people and contingency	
Good practice: Everyone in the farming operation understands the importance of effluent management and the consequences of non-compliance	
<i>Tip:</i> Try to keep your effluent system as simple as possible for staff to use	
 There is a documented operating procedure for effluent system operators which covers areas including: health and safety¹ areas of the farm which can receive effluent areas of the farm to avoid applying effluent basic use of the farm effluent irrigation system a daily/weekly task list to sign off correct irrigator hose layout basic maintenance requirements of the effluent system a contingency plan which includes: key contact names and numbers for when there are system failures, bad weather or issues which may compromise the correct operation of the system 	
Good practice: All people with effluent management responsibilities have been trained in the operating procedure, and training records are kept	
Good practice: External training courses are utilised to increase understanding of good practice	
Good practice: There is a documented effluent system maintenance plan in place which is followed. For more information refer to the Effluent management plan poster.	
Pond discharge treatment systems	
Treated discharge does not cause adverse environmental effects (as specified in the resource consent to the receiving waterbody below the mixing zone (discolouration, foams, odours etc)	
Untreated effluent cannot reach surface water	
Pond is sealed (lined or compacted clay or lime where suitable) to prevent leaching	
Good practice: The first (anaerobic) pond is routinely de-sludged. (Note: Refer to your resource consent or ask the regional council how often the pond should be de-sludged).	
Good practice: Solids are prevented from entering the second (aerobic) pond (by a baffle or t-piece).	
Good practice : Embankments are not damaged and do not leak, and there is a minimum of 300mm freeboard in the pond so they don't overflow. (Note: Freeboard is the difference between the water level and the lowest part of the embankment)	
Good practice: Pond surface and pipework is clear of weeds and obstructions, and pond is fenced off for safety	

of people and animals.



Feed pads and wintering pads

A permitted activity provided all the following conditions are met

Feed, wintering and stand-off pads are a permitted activity provided the discharge does not cause any contamination of waterbodies, groundwater or coastal water, and:

- The discharge is not within 50m of any surface water body or coastal water
- The discharge is not within 50m of any bore or well used for potable water supply or stock water supply, and there are no adverse effects on any take of water for human consumption

Tip: Solids/sludges/slurries and stand-off pad bedding material is spread back over land with no runoff to waterways, and meets Rule 76: Land application of agricultural effluent.

Tip: Stand-off pads are designed so all effluent is contained within a bedding layer, or collected in a sealed effluent system.

Good practice: If you need to create a sacrifice or forage crop paddock don't choose one that has a waterway in it, or adjacent to it if possible. If a waterway is unavoidable ensure waterways are fenced off with a 3-5m grass buffer zone to trap sediment and effluent. Paddocks which are highly visible to the public are not a good idea because the public don't understand the concept of restricted grazing - they just see cows in mud with no food.

Fertiliser use

A permitted activity in all areas (excluding newly developed land in the Lake Brunner catchment2) provided all the following conditions are met:

All farms:

- Fertiliser use does not cause any waterway contamination
- Fertiliser application does not cause drift away from the target application area which is noxious, dangerous, offensive or objectionable, or likely to have an adverse effect on the environment

In the Lake Brunner catchment², the discharge of phosphorous fertiliser to land developed after 1st July 2010 will require resource consent⁴

Good practice: Use an OVERSEER nutrient budget and a nutrient management plan to ensure all nutrients are being used efficiently, and to make effluent and fertiliser decisions. This can save money on fertiliser and minimise environmental losses.

Note: Any humping and hollowing, flipping, V blading or contouring of land in the Lake Brunner catchment is a controlled activity and requires a resource consent

¹ Health and Safety. Every year people die doing day to day tasks on dairy farms. The effluent system is a particularly hazardous area. A Health and Safety Plan is a legal farm requirement, DairyNZ has a template to help with this; see www.compliancetoolkit.co.nz

² See following page. Lake Brunner Catchment Map

³ Lake Brunner Effluent Consent.

A resource consent is required for land application of effluent in the Lake Brunner catchment. Land application is the preferred method of effluent management in the catchment to meet the objective of reducing the phosphorus entering the lake.

The consent controls the following:

a) the extent to which the proposed treatment system prevents the loss of phosphorus to Lake Brunner;

b) the rate of effluent app lication;

- c) the area of land effluent will be discharged into or onto;
- d) the return period for application of the effluent;
- e) design and operation of the effluent system;
- f) storage capacity of ponds for wet periods;
- g) equipment maintenance requirements;
- h) effluent management and spill contingency plans;
- i) monitor requirements;
- j) the duration of the consent; and
- k) review conditions of the consent.



⁴ In the Lake Brunner catchment², the discharge of phosphorous fertiliser to land developed after 1st July 2010 will require Resource Consent⁴ unless the fertiliser has a water solubility of less than 10%⁵

A resource consent is required and must be granted, however the Council reserves control over:

a) The extent to which the proposed fertiliser application methods prevents the loss of phosphorus to Lake Brunner;

b) The area of land that phosphorus will be applied to

c) Monitoring requirements

d) The duration of the consent and

e) Review conditions of the consent.

Disclaimer: The information that appears in this checklist is intended to provide the best possible compliance guidelines for dairy farm effluent practices. However, the information is provided as a general guidance only, and is not intended as a substitute for specific advice. Practices, systems and advice may vary depending on the circumstances applicable to your situation. The information may also be subject to change at any time without notice. DairyNZ, Federated Farmers, West Coast Regional Council, Westland Milk Products and AgITO take no responsibility whatsoever for the currency and/or accuracy of this information, its completeness or fitness for purpose.

Contacts

You can check out the Rules in Chapters 18 of the Proposed Regional Land and Water Plan on www.wcrc.govt.nz/plans/rma_plans/land_water

If you need assistance with any compliance issues on your farm, call one of these organisations for help:

DairyNZ	Sustainability team 0800 4 DairyNZ (0800 4 324 7969)
Westland Milk Products	Environmental Team 03 756 9800
West Coast Regional Council	0508 800 118
Federated Farmers	0800 Farming (0800 327 6464)
Primary ITO	0800 80 20 80

2. Lake Brunner Catchment Map

