

Dairy farm effluent

– the rules for achieving compliance in the Horizons region

This checklist is a self audit to give farmers confidence they can pass a Horizons Regional Council Compliance Audit. We recommend you follow up any box without a tick as soon as possible as they could result in enforcement action. If you need assistance, please contact one of the organisations listed at the back of the checklist. This checklist is for your own information and you do not need to share it with any organisation unless you wish to.

Please note: If you are undertaking or planning a dairy conversion, adding non-dairy land to your dairying operation or you are farming in the target water management subzones⁷, different rules apply to you which are not listed in this checklist. Please contact Horizons for more information.

- You must remain compliant with your consent requirements every day – regardless of the time of year, weather, or staffing issues. Should a breakdown occur, it is important that you notify Horizons immediately on 0508 800 800.
- Ensure you have a plan in place to cope with all of the above scenarios.
- Make sure all staff on your farm know the rules, are fully trained in the operation and maintenance of the effluent system, and know what to do and who to contact if the system breaks down
- Some rule wording changes are likely in the near future. Please contact Horizons Regional Council for specific rule discussion or follow One Plan progress by visiting Horizons website on www.horizons.govt.nz

Note: Please see your Horizons FDE resource consent for exact rule wording if required, or the One Plan on horizons.govt.nz. For more information refer to Dairy farming under the One Plan – Your guide to obtaining a land use consent for an existing dairy farm.



Activities requiring a consent

Not all resource consents are the same. Older consents will not list all the conditions stated in this checklist. Your current consent lists the conditions you need to comply with, however many of these new conditions may be written into your next consent.



The storage and discharge of animal effluent	
Effluent from yards, pads, sumps or ponds does not discharge to waterways/waterbodies, or overflow onto land ¹	
There is a reliable stormwater diversion system in place to ensure stormwater does not discharge to effluent ponds, sumps, or any hard surface that drains into effluent ponds or sumps, unless provision has been calculated and included in storage capacity of the effluent storage facility <i>Note: stormwater diversion needs to occur prior to water entering the sand trap or sump</i>	
Effluent ponds and sumps are adequately sealed to avoid seepage and leaks ²	
Solids from feed pads, sumps, sand traps, and ponds are stored on a sealed surface which will drain back into the effluent system. Solids are spread evenly onto land to meet nutrient loading requirements, as per your consent	
Effluent ponds and sumps have the capacity to store sufficient effluent for mechanical breakdowns and prolonged wet weather events ³	
The application of dairy farm effluent to land (an additional consent may be required for other types of animal manure)	
Effluent irrigation pipes and equipment do not have any substantial or permanent leaks which cause ponding. <i>Note: ponding is a depth of effluent greater than 25mm (covering a continuous area exceeding 10m² or a combined area greater than 20m²)</i>	
An OVERSEER nutrient budget is used to help minimise the risk of elevated effluent nitrogen (N) loading ⁴	
The effluent block (excluding buffer zones) is large enough to meet annual N loading requirements ⁵ <i>Note: feed pads will require additional area to comply with N loading requirements. For more information refer to A farmer's guide to managing farm dairy effluent.</i>	
Effluent is irrigated at a depth which meets a maximum N loading of 50kgN/ha/24hours	
Effluent is not applied on days when spray drift will land within 20m of the property boundary	
Effluent application does not result in any objectionable odour beyond the farm boundary ⁶	
There is no surface ponding of applied effluent at the time of irrigation, or any effluent on the soil surface five hours after irrigation has occurred. <i>Note: ponding is a depth of effluent greater than 25mm (covering a continuous area exceeding 10m² or a combined area greater than 20m²)</i>	
The effluent application area is not located within: <ul style="list-style-type: none"> • 20m of public areas, public roads, or residential properties • 20m of surface water, bores, or the Coastal Marine Area • 50m of rare, threatened or at-risk habitats or historic heritage areas <i>Note: effluent is to stay at least 20m from watercourse¹ or road. This is measured from where the effluent lands, not where the irrigator is positioned. Please check with Horizons regarding this rule.</i>	



Preventing faecal contamination of water by stock, and from effluent runoff.

Good practice unless the farm is a new conversion or in a target catchment⁷

Stock do not enter waterways and waterbodies¹

- All locations where stock regularly cross waterways are bridged or culverted.

Effluent runoff from the following areas is managed, so that effluent does not discharge directly to waterways or waterbodies¹. This list includes solids/sludges/slurries from effluent concentration or generation areas. Some of these activities require a consent (C) as indicated

- bridges
- culverts
- underpasses
- raceways
- stock and dairy yards (including entry/exit races) (C)
- milk room and washdown water (C)
- sumps, sand traps, ponds (overflowing or from desludging) (C)
- feed pads and wintering barns (C)
- stand-off/holding areas (consent required if supplementary feeding occurs within this area)
- any other stock concentration areas.

¹ Waterways or waterbodies includes any watercourse or internal drain that flows intermittently or continuously.

² Sealing layer must be impermeable (1x10⁻⁹ metres/second) such as concrete or plastic. Clay liners require additional proof of sealing including sign-off verifying the sealing standard has been met by a suitably qualified engineer.

³ Please note that new consents may have a minimum storage volume. Any volume stated on your consent will take precedence over this condition.

⁴ All farms with consents granted post 31st May 2007 must have an annually updated OVERSEER nutrient budget. Farms in the catchments in footnote 7 also need a nutrient management plan completed by an approved nutrient management expert.

⁵ As determined by your Overseer budget.

⁶ An odour will only be considered objectionable, after a Manawatu-Wanganui Regional Council officer has considered the Frequency, Intensity, Duration, Offensive and Location of the odour (i.e. the FIDOL Factors).

⁷ Map of target water management subzones. These areas have additional rules. See appendix.

⁸ Rated by Horizons as having important historical heritage, natural or ecological values. If unsure contact Horizons.

⁹ Download from www.fertresearch.org.nz/code-of-practice/nutrient-management-planning.

¹⁰ N Fertiliser applications greater than 60 kg N/ha/yr will require an OVERSEER nutrient budget.

¹¹ Sewage or sludge, but the material cannot contain any human or animal pathogens (bugs, diseases, etc.) or any hazardous substances. There are specific requirements for the use of different biosolids, please contact Horizons.

¹² Substances that alter soil physical qualities (e.g. lime, clay, gypsum, biochar, organic materials like compost, sawdust or bark).

¹³ Poultry farm litter means solid poultry manure, bedding and composted material from poultry farm sheds.

¹⁴ Property: one or more adjacent allotments that are in the same ownership.

Permitted activities

If you cannot comply with the permitted activities conditions then a resource consent is required.



The dump or offal hole does not discharge or overflow to waterbodies ¹	
Only waste from the farm is disposed of in farm dump/offal hole (waste must not contain hazardous substances or sewage)	
The lowest point of the farm dump/offal hole is at least one metre above the seasonally highest water table. <i>Note: visual check – have you ever seen the bottom of the offal pit fill with water?</i>	
There is no discharge from the farm dump/offal hole into surface waterbodies ¹	
Reasonable measures are taken to minimise animal pests around the farm dump/offal hole	
Objectionable odour, dust, waste or drift from the farm dump/offal hole does not go beyond the property boundary ⁶	
The farm dump/offal hole is not located within: <ul style="list-style-type: none"> • 10m of the property boundary • 20m of surface water, bores, or the Coastal Marine Area • 50m of rare, threatened or at risk habitats or historic heritage sites • 150m of public areas or residential properties 	
The application of fertiliser to farm land	
Fertiliser is not applied or discharged directly to a waterbody ¹	
Fertiliser is not applied or discharged into any areas of indigenous vegetation, riparian areas, and wetlands, which have been rated as having important natural, or ecological values ⁸	
The fertiliser is applied in accordance with the Nutrient Management Code of Practice ⁹	
Nitrogen fertiliser applications are managed with an OVERSEER nutrient budget that accounts for other N-sources to reduce N-leaching risks ^{4,7,10}	
The application of any fertiliser does not result in any objectionable odour or problem causing drift beyond the farm boundary ⁶	
Storage and feeding of supplements	
All silage feed storage pits larger than 500m ² are on a sealed surface ²	
Feed pads are sealed to avoid seepage and leaks ² and all must be managed as animal effluent (i.e. meets requirements in section one and two of checklist). <i>Note: A consent is required for the discharge of effluent from the feed pad.</i>	
Runoff from feed storage sites or feeding-out areas (as distinct from feed pads) is prevented from entering waterways or waterbodies ¹ (excludes feeding-out on pasture) <i>Note: silage leachate can be directed into effluent collection system for diluted irrigation</i>	
Stormwater from the area surrounding the feed storage sites or feeding out areas (excluding feeding out on pasture) must be directed away from the site	
The storage or feeding of supplementary feed does not result in any objectionable odour, dust or drift beyond the farm boundary ⁶	
Supplementary feed is not stored or fed-out at locations that are within: <ul style="list-style-type: none"> • 20m of surface water, bores, or Coastal Marine Area, and • 50m of ecological or historic heritage areas 	



The application of Aa grade biosolids¹¹ or soil conditioners¹² to land

Any biosolids and soil conditioners are included in OVERSEER nutrient budget and nutrient management plan. Records of application location and volume are kept, and records of monthly analysis of the N concentration of the biosolid or soil conditioner are kept

Biosolids or soil conditioners are not applied or discharged directly to waterways or waterbodies¹

The material is not applied within:

- 50m of the property boundary
- 20m of surface water, bores or the Coastal Marine Area
- 150m of public areas or residential properties

The application of the biosolid or soil conditioner does not result in any objectionable odour or drift beyond farm boundary

Poultry manure¹³

Poultry manure is cultivated into soil.

Poultry manure is included in OVERSEER nutrient budget. No greater than 150 kg N/ha/yr in 12 months and no greater than 60 kg N/ha/yr in 24 hour period

There is no discharge or runoff to waterways or waterbodies¹

There is no offensive or objectionable odour beyond property boundary⁶

Poultry manure is not applied within:

- 150m from residences, public places, roads, amenity areas and education facilities
- 50m from property boundaries
- 50m from rare, threatened or at-risk habitats or heritage areas
- 20m from bores, surface water, coastal marine or other waterbodies

Minor surface water takes for on-farm use

The rate of take does not exceed 400 L/ha/day up to a maximum of 30m³/day/property¹⁴ is extracted for animal farming, OR up to 30m³/day extracted for other purposes. *Note: these two allowances cannot be added together*

The rate of take does not exceed 2.0 litres per second (120 litres per minute)

Intake velocity does not exceed 0.3 metres per second

The intake is covered with a mesh or screen.

Note: diameter of holes in the mesh or screen must be no greater than 3mm

The take is not from a wetland that is a rare or threatened habitat ⁸

Written notification has been supplied to Horizons regarding take location, intended use of the water, and the maximum instantaneous rate of take



Minor ground water takes for on-farm use

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| The rate of take does not exceed 400 L/ha/day, up to 50m ³ /day/property ¹⁴ | |
| The bore is not located within 50m of any other bore on any other property | |
| The take does not lower the water level in any wetland that is a rare or threatened habitat ⁸ | |
| The bore is installed with a means of controlling the rate of flow (where the bore would otherwise be free-flowing, no water runs to waste) | |
| Written notification has been supplied regarding take location, intended use of the water, and the maximum instantaneous rate of take | |
| The take is not within 100m of any river or lake, or within 200m of any wetland that is a rare, threatened or at risk habitat. <i>NOTE: The take must not be from any rare, threatened or at risk habitat.</i> | |

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, Horizons, Fonterra, Open Country Dairy and AgITO take no responsibility whatsoever for the currency and/or accuracy of this information, its completeness or fitness for purpose.

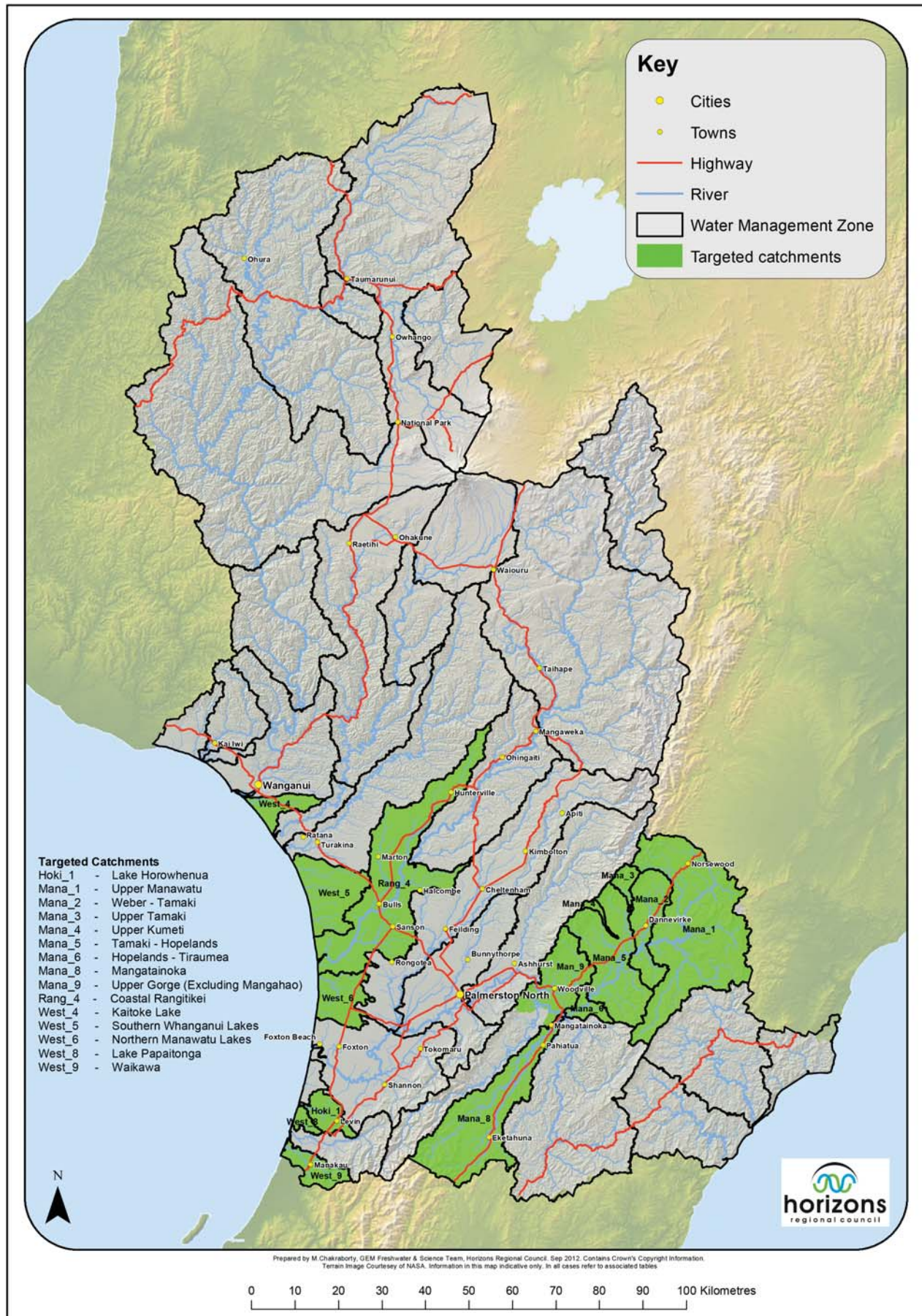
Contacts

You can check out the rules on www.horizons.govt.nz. If you need assistance with any compliance or environmental issues on your farm, call one of these organisations for help:

DairyNZ	Sustainability team 0800 4 DairyNZ (0800 4 324 7969)
Fonterra	Sustainability team 0800 65 65 68
Open Country Dairy	0508 Our Milk (0508 687 6455)
Horizons	0508 800 800
Federated Farmers	0800 Farming (0800 327 6464)
PrimaryITO	0800 80 20 80

Appendix

Footnote 7 Target water management subzones



Farms within these zones or new conversions must comply with the following additional conditions.

1. An OVERSEER nutrient budget and a nutrient management plan provided annually to Horizons.
2. Dairy cattle are excluded from wetlands and lakes and rivers that are permanently flowing or have an active bed greater than 1m wide. (An active bed is defined as a river bed that is intermittently flowing predominantly and the bed is unvegetated and comprises sand, gravel, boulders or similar material).
3. Waterway crossings (permanently flowing/greater than 1 m wide) which are crossed by more than 1350 dairy cattle movements (i.e. 675 cows return trip once a week or 337 cows crossing two return trips per week) must be bridged or culverted with run off from bridge/culvert diverted away from water onto land.

All new conversions must meet cumulative leaching maximums by Land Use Capability (LUC) class as follows.

Table 1: Cumulative nitrogen leaching maximum* by Land Use Capability Class*

Period (from the year that the rule has legal effect ³)	LUC* I	LUC* II	LUC* III	LUC* IV	LUC* V	LUC* VI	LUC* VII	LUC* VIII
Year 1	30	27	24	18	16	15	8	2
Year 5	27	25	21	16	13	10	6	2
Year 10	26	22	19	14	13	10	6	2
Year 20	25	21	18	13	12	10	6	2

³ The Plan has legal effect in the case of dairy farming* from 24 August 2010 and for commercial vegetable growing*, cropping* and intensive sheep and beef* it has legal effect from 9 May 2013.