

Dairy farm effluent

– the rules for achieving compliance in the Bay of Plenty

This checklist is a self audit to give farmers confidence they will pass a Bay of Plenty Regional Council Compliance Assessment. The checklist is for your own information and you do not have to share it with any organisation.

We recommend you follow up any boxes that are not ticked as soon as possible. If you need assistance, please contact one of the organisations listed at the back of the checklist.

- Not all resource consents are the same, some older consents will not list all the conditions in this checklist. It's a good idea to read this checklist in conjunction with your individual consent
- You must remain compliant with your consent requirements everyday – regardless of the time of year, weather, breakdowns or staffing issues
- Ensure you have a plan in place to cope with all of the above scenarios
- Enforcement action is considered on a case-by-case basis, and specific factors, such as a breach during times of flood, will be taken into account during enforcement decision making
- 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
- Always aim for good practice rather than just achieving compliance.



Bay of Plenty checklist



1. Get familiar with the conditions of your consent and actively seek compliance

Much of the non-compliance reported in the Bay of Plenty is for minor issues that can easily be avoided. Take the time to go through your consent and make sure that all the administrative conditions have been fulfilled

Have you made any significant farm system changes since you designed your effluent system which are not covered by your current consent? (e.g. installed a feed pad)

Effluent is applied to the area of land specified in your consent document

The number of cows being milked is within the limit specified on the consent

If property has been bought/sold consent has been transferred to the new owner, or old consents surrendered

2. Have an effluent system that is capable of complying with your consent conditions, in terms of both infrastructure and ongoing maintenance

Good practice:

- Have effluent samples lab-tested for nutrient concentration
- Optimise nutrient use efficiency by applying effluent over a sufficient area to apply maintenance level K
- Check actual effective area when buffer for waterways/boundaries is accounted for

There is sufficient effluent storage for times when soil moisture levels are high¹. For more information refer to *A farmer's guide to managing farm dairy effluent*

All effluent is contained within structures (ponds or sumps) as specified in your consent, prior to application

Sumps are sealed, and designed so that any overflows are directed into a holding pond

Stormwater from roof and clean concrete areas diverted away from effluent system (all stormwater containing effluent must be captured)

The application area is large enough to meet the requirements of the consent for N loading². For more information refer to *A farmer's guide to managing farm dairy effluent*

The pump pressure is sufficient to ensure compliant effluent application depths can be met over all of the effluent area

A regular maintenance regime is in place for the effluent system – such as greasing, hosing-down, storage, unblocking stirrer, nozzles, tyres, checking pipes and hydrants etc

Contingency measures are in place in the event of a system failure³

Effluent solids, sludges and slurries (i.e. from ponds, feed pads and sand trap cleanings) are stored on a sealed surface which drains back into the effluent system. Solids are spread evenly on pasture to avoid exceeding application depth and over loading with nutrients in one area⁴

Stand-off pads are designed so that all effluent is contained within a bedding layer, or collected in a sealed effluent system. When replacing the bedding layer, the old material is spread evenly on pasture to avoid over-loading of nutrients in one area⁵. For more information refer to *Stand-off pads*



3. Get the right amount of effluent on the soil at the right time and in the right place

A good effluent system will apply effluent to soil:

At an application rate (mm/hr) which does not result in excessive ponding (lasting for more than 30 minutes) and effluent runoff. Generally no irrigation of effluent to pasture should occur when the soil is saturated (i.e. free water appears on the soil when squeezed)⁶. For more information refer to *A farmer's guide to managing farm dairy effluent*

At an appropriate depth (mm) for the soil and within the limit specified on your consent

At least 20m distance from waterways, adjacent property boundaries and groundwater bores, and is within the area specified on consent⁷

Effluent systems that can deliver these results will save you money through better nutrient utilisation and will help prevent environmental effects on water

4. People and systems (these are not always requirements of your consent, but will help you and your staff comply)

Everyone in the farming operation understands the importance of effluent management and the consequences of non-compliance

A copy of your effluent consent is displayed in a prominent place in the dairy shed⁸

Everyone knows what to do if something goes wrong

A training schedule is maintained for staff with direct effluent management responsibilities

An effluent management plan is in place that clearly defines responsibilities and procedures
Good practice: record effluent irrigator runs – location, date, number of returns etc. For more information refer to the *Effluent management plan* poster

External training courses are utilised to increase understanding of good practice.

5. Sources of effluent which need to be managed:

- milk room and washdown water
- yards, concreted entry/exit races
- sumps, sand traps
- solids from desludging ponds
- concreted areas, including feed pads
- underpasses
- wintering barns

For rules on farm dumps, offal holes and silage stacks see next page

¹ Storage requirements are dependent on many factors. Refer to "A Guide to Managing Farm Dairy Effluent in the Bay of Plenty, 2011" or ask the Bay of Plenty Regional Council consents team about the Storage Calculator

² Refer to your nutrient budget in order to determine your farm's N and K loading on your effluent application area

³ Contingency measures include things like additional storage capacity, having a spare pump or irrigator, staff know who to call etc

⁴ Sealed means does not leak, such as concrete, lined or compacted clay (where the soil type is suitable to do this). Ask your Bay of Plenty Regional Council consents or pollution prevention officer for advice

⁵ If your stand-off pad is unable to be designed to contain all effluent, you may need to apply for a resource consent to authorise it

⁶ Topography, rainfall, soil moisture, soil type and drainage all influence the risk of runoff and ponding. A soil moisture probe can be used to check soil moisture

⁷ Defined as surface water body, drainage canal, drain, ephemeral flowpath containing water and bores

⁸ Although not a consent condition, it's a good idea anyway. If you would like a copy of your consent, call the Bay of Plenty Regional Council

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

From the water and land plan

Rule 25: Permitted – farm dumps

Farm dumps are permitted, provided:

- a) Material is limited to that from normal farm operations and household waste
- b) None of the following materials may be dumped:
 - (i) hazardous substances
 - (ii) petroleum hydrocarbons (including oils and fuels) and their containers
 - (iii) human sewage
 - (iv) stock effluent
 - (v) offal, dead stock or animals.
- c) Where the containers of hazardous substances are disposed of in a farm dump, the disposal shall comply with Appendix Z of NZS8409:1999 Code of Practice for the Management of Agrichemicals
- d) The dump shall not be located within:
 - (i) 50 horizontal metres of any groundwater bore, stream, river, lake or wetland
 - (ii) 50 horizontal metres of a geothermal surface feature
 - (iii) 50 horizontal metres of the coastal marine area
 - (iv) An area that is flooded during storm events. This includes land that is:
 - (a) an ephemeral (flowing after rain) flowpath, or
 - (b) the berm of a river scheme identified in Schedule 5, or
 - (c) a floodway identified in Schedule 6.
 - (v) An area where the highest groundwater level is less than 1m below the base of the dump site.
- (e) There shall be no surface ponding of leachate at the dump site, or overland flow of leachate from the dump site
- (f) Stormwater shall be diverted from entering the dump site
- (g) When no longer in use the waste in the dump site shall be covered with a minimum of 300mm of soil material substrate.

Rule 26: Permitted – offal holes

Offal holes are permitted, subject to the following conditions:

- (a) Only animal and vegetable material resulting from normal farm operations sourced exclusively from the farm property may be put in the offal hole.
- (b) The following substances and materials shall not be discharged to an offal hole:
 - (i) hazardous substances and their containers
 - (ii) petroleum hydrocarbons (including oils and fuels) and their containers
 - (iii) human sewage
 - (iv) stock effluent.

- (c) The offal hole shall not be located within:
 - (i) 50 horizontal metres of any groundwater bore, stream, river, lake or wetland
 - (ii) 50 horizontal metres of a geothermal surface feature
 - (iii) 50 horizontal metres of the coastal marine area
 - (iv) An area that is flooded during storm events. This includes land that is:
 - (a) an ephemeral (flowing after rain) flowpath, or
 - (b) the berm of a river scheme identified in Schedule 5, or
 - (c) a floodway identified in Schedule 6
 - (v) An area where the highest groundwater level is less than 2m below the base of the offal hole.
- (d) There shall be no surface ponding of leachate or wastes at the offal hole site or overland flow of leachate or wastes from the offal hole site
- (e) The offal hole shall be securely covered to prevent stormwater from entering the hole
- (f) When no longer in use the waste in the dump site shall be covered with a minimum of 300mm of soil material substrate.

Rule 27: Permitted – ensilage (silage) pits and stacks

Ensilage (silage) pits and stacks are permitted, subject to the following conditions:

- (a) There shall be no discharge of leachate to a surface water body
- (b) There shall be no surface ponding of leachate at the silage pit site or overland flow of leachate from the silage pit or stack site
- * **Good practice:** Make silage on a sealed surface and capture and treat leachate generated
- (c) All practicable steps shall be taken to divert stormwater away from the silage pit or stack
- (d) The silage pit or stack shall not be located within:
 - (i) 50 horizontal metres of any groundwater bore, stream, river, lake, wetland, or land drainage canal
 - (ii) 50 horizontal metres of a geothermal surface feature
 - (iii) 50 horizontal metres of the Coastal Marine Area
 - (iv) A gully or depression, or an area that is flooded during storm events
 - (v) An area where the highest groundwater level is less than 1m below the base of the silage pit or stack.

For a complete list of rules that may affect your farming operation – refer to ‘A Guide to Farming Activities’ available on www.envbop.govt.nz

Contacts

You can check out the rules from the Water and Land Plan at www.envbop.govt.nz. If you are not sure of any of the questions in this checklist, or need further assistance contact:

DairyNZ	Sustainability team 0800 4 DairyNZ (0800 4 324 7969)
Fonterra	Sustainable Dairying Team 0800 65 65 68
Open Country Dairy	0508 Our Milk (0508 687 6455)
Bay of Plenty Regional Council	0800 884 880
Federated Farmers	0800 Farming (0800 327 6464)
Primary ITO	0800 80 20 80