

# *Dairy farm effluent*

## *– the rules for achieving compliance in Canterbury*

**This checklist is a self audit to give farmers confidence they will pass an Environment Canterbury 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 every day – 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.



# Canterbury checklist



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

There is sufficient effluent storage for times when soil moisture levels are high

All effluent is contained within sealed structures

The depth and rate of effluent application has been measured and it satisfies the requirements of the consent. 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*.

The disposal area is sufficiently large for the herd size<sup>1</sup>

A regular maintenance regime is in place for the effluent system. For more information refer to the *Effluent management plan* poster.

Contingency measures are in place in the event of a system failure<sup>2</sup>

## 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 appropriate depth for the soil and within the limit specified on your consent

At times when the soil moisture is sufficiently low

At a rate which does not result in ponding and effluent runoff

At a suitable distance from waterways, bores and soak holes (check your consent)

Within the areas specified on the resource consent

In a way that maximizes the use of the consented area to ensure Nitrogen Loading rates are minimized.

Solids are stored on a sealed surface that drains back into the effluent sump

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

For more information refer to the *Planning the right system for your farm*.

## People with the right skills and knowledge to achieve best practice in effluent disposal

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

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 (see [www.ecan.govt.nz](http://www.ecan.govt.nz) for examples)

External training courses are utilised to increase understanding of best practice



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

*Much of the non-compliance reported in Canterbury 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 to reduce compliance costs and improve the reputation of the dairy industry*

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<sup>3</sup>

A copy of your consent and effluent management plan is displayed in a prominent place in the dairy shed<sup>4</sup>

A copy of the effluent management plan has been provided to all employees and Environment Canterbury

All previous consents that are no longer required have been surrendered

All other requirements of the consent have been fulfilled

<sup>1</sup> To work out your nitrogen loading, multiply the peak number of cows being milked by 6.5 and divide by the total hectares used for effluent disposal. This will give you the kilograms of nitrogen/hectare/year

<sup>2</sup> Contingency measures include things like additional storage capacity, having a spare pump or irrigator or the contact details of the local vacuum tanker operator in an easy to find location

<sup>3</sup> Note that this limit is often imposed through a maximum volume of undiluted effluent. To calculate your undiluted effluent volume, multiply your cow numbers by 5.4 litres. If the number is bigger than the volume specified on your consent you will need to change the consent or reduce the number of cows being milked

<sup>4</sup> Not all consents require this, but it's a good idea anyway. If you don't have a copy of your consent, call Environment Canterbury customer services on 0800 EC INFO, or they are available on the website, [www.ecan.govt.nz](http://www.ecan.govt.nz)

**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, Environment Canterbury, Synlait, New Zealand Dairies, AgITO and Fonterra take no responsibility whatsoever for the currency and/or accuracy of this information, its completeness or fitness for purpose.

## Contacts

If you answered no or not sure to any of the questions above, you can call the following organisations for assistance:

<b>DairyNZ</b>	Sustainability team 0800 4 DairyNZ (0800 4 324 7969)
<b>Fonterra</b>	Sustainable Dairying Team 0800 65 65 68
<b>Environment Canterbury</b>	0800 324 636
<b>Federated Farmers</b>	0800 Farming (0800 327 6464)
<b>Synlait</b>	Environmental Manager 03 373 3000
<b>New Zealand Dairies Ltd</b>	Supply Liasion 03 690 9048
<b>Primary ITO</b>	0800 80 20 80



# What's the problem with effluent ponding?

**Ponding of effluent on the paddock can have both environmental and economic impacts. Applying too much effluent at once, or applying effluent too fast, can cause the effluent to pond on the soil surface**

## **Economic impacts of ponding**

- Valuable nutrients are lost and unable to be used by plants
- Can impede pasture growth and earthworm activity
- Increases the risk of pugging damage
- Cows don't like eating grass covered in effluent (under-utilisation of pasture).

All the above will reduce pasture growth and can lead to increased weed content in the pasture

## **Environmental impacts of ponding**

Risk of effluent running off into a nearby waterway

- Increased nutrients and therefore, nuisance plant growth in streams
- The effluent can be toxic to insects and fish
- Health risk to downstream river users
- Unsightly appearance of stream.

## **Risk of the effluent leaching into shallow groundwater**

- Increased nitrate leached to groundwater, which affects groundwater users downstream
- In some cases, may cause movement of bacteria into the shallow groundwater
- Affects the water quality of nearby spring-fed streams
- Health risk to people and stock that rely on groundwater-sourced drinking water supplies.

**For more information on managing your system contact the DairyNZ farmer information line 0800 4 DAIRYNZ (0800 4 324 7969).**



# Compliance gradings for effluent ponding in Canterbury

No ponding - Fully compliant	Minor ponding
 <p>There may be a small amount of effluent in depressions immediately after irrigation, however this disappears quickly</p>	 <p>Small puddles are present and they remain for a brief time after the irrigator has passed over. This makes up a significant proportion of the non-compliance statistics</p> <p><b>Likely Environment Canterbury action:</b></p> <ul style="list-style-type: none"> <li>• Written warning</li> <li>• May lead to an increased frequency of monitoring</li> <li>• May be graded as significant for repeated occurrences</li> <li>• May lead to enforcement action for repeated occurrences.</li> </ul>
Significant ponding	Major ponding
 <p>Medium to large puddles are present and they may remain for longer than 2-3 hours after the irrigator has passed over</p> <p><b>Likely Environment Canterbury action:</b></p> <ul style="list-style-type: none"> <li>• Frequent re-visit/s will be conducted to check compliance at the consent holder's expense until compliance is achieved</li> <li>• Likely to result in infringement notice(s) being served on the consent holder, farm owner, sharemilker and/or staff responsible for the breach<sup>1</sup></li> <li>• Abatement notice likely to be issued to the consent holder, farm owner and/or sharemilker<sup>2</sup></li> <li>• Possible prosecution of the consent holder, farm owner, sharemilker and/or staff responsible for the breach, especially for repeat occurrences.<sup>3</sup></li> </ul>	 <p>Large areas of pooled effluent are present and also likely to be sludge build-up. May take days to drain away. Likely to result in overland flow to drains or waterways on sloping land</p> <p><b>Likely Environment Canterbury action:</b></p> <ul style="list-style-type: none"> <li>• Frequent re-visit/s will be conducted to check compliance at the consent holder's expense until compliance is achieved</li> <li>• Likely prosecution of the consent holder, farm owner, sharemilker and/or staff responsible for the breach, especially for repeat occurrences<sup>3</sup></li> <li>• No prosecution charges are laid then infringement notice(s) will be served on the consent holder, farm owner, sharemilker and/or staff responsible for the breach, should a prosecution not be taken<sup>1</sup></li> <li>• Abatement notice will be issued to the farm owner and/or sharemilker.</li> </ul>

**NOTE: This sheet is intended as a guide only and Environment Canterbury will consider each case on its own individual merits and take the action that it sees is appropriate.**

<sup>1</sup> The infringement fee fine an effluent breach is \$750. This can be issued to multiple parties for the same offence

<sup>2</sup> An abatement notice is a formal notice issued under the RMA. It can require you to undertake an action, or cease undertaking an action. Failure to comply with an abatement notice can result in a \$750 infringement fine or a court prosecution. In addition, to a breach of abatement notice fine, a second infringement fine for the effluent breach is likely to be issued.

<sup>3</sup> The maximum penalties under the RMA for an individual are \$300,000, and \$10,000 a day for any continuing offence, or a prison term of up to 2 years. Convictions also carry a criminal record. For companies and partnerships the maximum fine is \$600,000, and \$10,000 a day for any continuing offence