

# *Dairy farm effluent*

## *– the rules for achieving compliance in the Tasman region*

**This checklist is a self audit for you and your staff to ensure ongoing compliance of your effluent management system with Tasman District Council rules. The checklist is for your own information and you do not need to share it with any organisation.**

**After working through the checklist we strongly recommend that you follow up any crosses or question marks as soon as possible. If you need assistance, please contact one of the organisations listed at the back of the checklist.**

Dairy farms in the Tasman region most commonly employ effluent systems that apply effluent to land and therefore operate under a permitted activity rule (TRMP 36.1.2.3). Systems which cannot comply with the permitted activity rule, (e.g. two or three pond systems with discharge), must apply for and operate under the conditions of a resource consent.

For advice on the process to gain or renew a discharge consent, contact the Tasman District Council consents team. Their phone number is at the back of this checklist.

### **Key points for compliance:**

- The Resource Management Act presumes that any discharge to water is illegal unless authorised
- Dairy farms in the Tasman region operate under permitted activity rules for applying effluent to land
- For those farms operating with a resource consent, read this checklist in conjunction with your individual consent as not all resource consents are the same
- You must ensure that your effluent system and any effluent application from the system can comply with council rules 365 days of the year, regardless of the time of the year, weather conditions, breakdown or staffing issues
- Ensure you have a plan in place to cope with all of the above scenarios
- Make sure all permanent and relief staff 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.



# Tasman region checklist

These activities are permitted as long as the following conditions can be met.



**You may be asked to provide information to the council to show how the conditions of these rules, which are listed in the white boxes, are being met. Good practice tips to help you achieve compliance are shown in green boxes**

**Good practice:** Much of the non-compliance reported in Tasman is for minor issues which can easily be avoided. Take the time to go through your consent and ensure that all the administrative conditions have been fulfilled

Effluent cannot enter any water or waterways under any circumstances i.e. from ponding, runoff or direct discharge<sup>1</sup>

This includes water in all its forms, whether flowing or not, and whether over, on, or underground. A waterway is a water carrying body, i.e. stream, river, lake, pond, ditch, wetland, intermittently flowing drainage channel, groundwater, coastal or geothermal water etc

Effluent is not applied at a depth or intensity (rate) which results in ponding on the land surface for longer than one hour

Effluent is only applied to pasture (i.e. with 90 percent plant cover, not bare ground) or immediately prior to cultivation for incorporation into the soil

**Good practice:** Only apply effluent when the soil has the capacity to receive it, i.e. it is not saturated from previous rain, and application rate does not exceed the rate of water infiltration, which causes ponding or runoff. Always aim to keep effluent in the root-zone (top 20cm of soil) so that pasture can fully utilise the nutrient and water, and minimise the risk of nitrate leaching

There are contingency plans in place to prevent effluent ever entering waterways

A good contingency plan will include having adequate available storage and good pond volume management (e.g. applying effluent on every suitable day), back up infrastructure such as pumps or irrigators (this could be an agreement with neighbours) and a written plan for staff with phone numbers in case of emergency or equipment breakdown. For more information refer to *A farmer's guide to managing farm dairy effluent*.

Effluent is not applied into any open sinkhole/tomo

Effluent is not applied within 20m\* of any surface water body, or the coastal marine area

\*Set back distances are from the edge of the wetted area created by the irrigator, not the irrigator position. Special care must be taken on windy days to ensure this rule is still met

Effluent is not applied within 20m\* of any bore for domestic water supply

Effluent is not applied within 10m\* of any adjoining property (including all roads)

Effluent is not applied within 50m\* of any dwelling on an adjoining property

Effluent application does not create an offensive or objectionable odour beyond the property boundary

Any effluent storage facilities, such as sumps or ponds, are sealed to prevent any contamination of water by seepage

**Note:** 'sealed' means it does not leak, for example use of a synthetic, compacted clay or concrete liner which does not allow any effluent to escape i.e. all old pipes are blocked off. For more information refer to *Farm Dairy Effluent (FDE) – A farmer's guide to building a new effluent storage pond*.

**Good practice:** Minimise the amount of fresh water going into your effluent system to reduce the total volume of effluent to be managed, especially during winter. Green water recycling for yard wash could be an option.<sup>2</sup>

Stormwater from dairy buildings is diverted away from the effluent system i.e. guttering leads to a stormwater drain or holding tank, and there are no leaks in the spouting. Stormwater diversion should occur before the stone trap. Ensure no water which contains effluent is diverted to freshwater

A Pond Storage Calculator has been developed which uses your farm data, soil and climatic information to help determine the storage requirements specific to your farm. Contact one of the organisations listed at the back of this checklist for information. For more information refer to *Dairy Effluent Storage Calculator*.



The total nitrogen application on the effluent area does not exceed 200 kg/N/ha from all sources <sup>3</sup> including effluent and fertiliser. Nitrogen application on farm must not cause an increase in groundwater nitrogen concentration	
<b>Good practice:</b> Aim for optimum nutrient utilisation on farm and minimise nutrient losses through leaching or runoff. Talk to your fertiliser advisor for advice, or go to <a href="http://dairynz.co.nz/nutrients">dairynz.co.nz/nutrients</a> for more information on nutrient management and efficiency.	
Effluent is not applied on the Waimea Plains Aquifer Protection Area	
Before any new land is added to the effluent application area the discharger must supply this information to council before commencing the activity	
<b>Good practice:</b> Meeting all of the above conditions also applies when effluent ponds are emptied by contractors. It is your responsibility to provide clear instructions for the contractors and enough suitable area for the effluent to be applied	
<b>Tip:</b> there is a template to help you with this on <a href="http://compliancetoolkit.co.nz">compliancetoolkit.co.nz</a> – Effluent Contractors Job Sheet	
<b>Good practice tips for people and systems</b>	
An effluent management plan is in place that clearly defines responsibilities. For more information refer to the <i>Effluent management plan</i> poster.	
Everyone in the farming operation understands the importance of effluent management, their own liability <sup>4</sup> and the consequences of non-compliance. Everyone knows what to do if something goes wrong. For more information refer to <i>A staff guide to operating your effluent irrigation system – travelling irrigator</i> and <i>A staff guide to operating your effluent irrigation system – low rate irrigator</i>	
For larger farm teams, a training schedule is maintained for staff with direct effluent management responsibilities. Staff competency may need to be reviewed regularly	
External training courses are utilised to increase understanding of good practice	
All practicable steps <sup>5</sup> are in place, including fences, guards, shields, signs, farm inductions and briefings to ensure the safety of people around the effluent system. For more information refer to <i>A good practice guide for land application systems</i> .	
Pumps, pipelines, hydrants, connections and irrigators, including tyre pressure, lubrication, nozzle condition and hoses, are all well maintained and managed. Most incidences of non-compliance are due to poor maintenance	
A maintenance schedule for your effluent system is followed and a record kept	
<b>Silage and offal pits</b>	
<b>Silage and offal pits are a permitted activity so long as the following conditions can be met, otherwise a consent is required</b>	
The pit is no less than: <ul style="list-style-type: none"> <li>• 50m from any surface water body, or the coastal marine area</li> <li>• 50m from any bore for domestic water supply</li> <li>• 10m from any adjoining property</li> <li>• 50m from any dwelling on an adjoining property</li> </ul>	
The discharge does not cause an offensive or objectionable odour discernible beyond the property boundary	
The bottom of the pit is not less than 0.5m above the average winter level of groundwater	
There is no discharge of leachate into surface water or ground water	
<b>Waste chemicals and plastic wraps and containers should be recycled, rather than burned or buried in landfill where possible.</b>	
<b>Tip:</b> go to <a href="http://agrecovery.co.nz">agrecovery.co.nz</a> for a local service	



**Silage good practice tips:** Silage should be stored on a sealed surface when there is a high risk of leachate reaching ground or surface water e.g. when making low dry matter grass silage. Sealed = compacted clay (where soil type is suitable), concrete or lined so that leachate can be captured and treated.

Divert rain water away from the silage stack to reduce leachate.

Silage leachate should be directed to an effluent irrigation system such as a sump with a portable pump with a storage capacity of at least 3m<sup>3</sup>/100T of grass, or into effluent storage ponds for land application. It should not be directed into two pond oxidation treatment systems as the leachate is too strong.

### Stock crossing points

If stock walk through a waterway more than twice in a week, when averaged over one month, and you are unable to meet certain water quality standards prescribed in the Tasman Resource Management Plan (TRMP) you are required to eliminate this crossing by ceasing to use it or bridging it. The alternative is to obtain a resource consent to authorise the associated discharge to water. This is a discretionary Activity under TRMP meaning the Council has the discretion whether to grant the consent or not. You cannot be guaranteed that you will be successful in your application.

Please note: you may also require a resource consent and building consent to construct a stock bridge. Please contact your local council office in order to determine which consent(s) you require.

<sup>1</sup> 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

<sup>2</sup> Strict conditions apply for the use of green water recycling, contact your milk quality advisor from your dairy company for more information

<sup>3</sup> Check your effluent block nutrient budget from your fertiliser rep to ensure that you are meeting this rule

<sup>4</sup> The maximum penalty for non compliance is \$300,000 for an individual or up to two years imprisonment

<sup>5</sup> 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 [compliance toolkit.co.nz](http://compliance toolkit.co.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, Tasman District Council, Fonterra and Westland Milk Products 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 the regional plan at [tasman.govt.nz](http://tasman.govt.nz)

If you are not sure of any of the questions in this checklist, or need further assistance contact:

<b>DairyNZ</b>	Sustainability team 0800 4 DairyNZ (0800 4 324 7969)
<b>Fonterra</b>	Sustainable Dairying Team 0800 65 65 68
<b>Westland Milk Products Environmental Team</b>	03 756 9800
<b>Tasman District Council</b>	03 543 8400
<b>Federated Farmers</b>	0800 Farming (0800 327 6464)
<b>Primary ITO</b>	0800 80 20 80