

# *Dairy farm effluent*

## *– guidance for achieving compliance in the Auckland region*

**This checklist is a self audit for you and your staff to ensure ongoing compliance of your effluent management system with Auckland 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 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.**

- The Resource Management Act presumes that any discharge to water is illegal unless authorised.
- Dairy farms in the Auckland region operate either under a resource consent (for those farms discharging from treatment ponds to water) or according to permitted activity rules with no consent required (for those applying effluent to land).
- If you hold a resource consent for a discharge to water that is due to expire, it is recommended that you contact Auckland Council to discuss the application requirements and changes in the rules that could affect your decision. Discharge to water is now a discretionary activity. Discharge to land is the preferred option for management of farm dairy effluent.
- You must ensure that your effluent treatment/disposal system and any discharge from the system comply with council rules at all times, regardless of the time of the year, weather conditions, breakdown or staffing issues.
- 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.



# Auckland checklist

## Permitted activity operations – i.e. application of effluent to land

You can carry out permitted activities without a resource consent as long as you comply with the following conditions:



Infrastructure and maintenance	
All effluent is contained within the system (pipe work, sumps, ponds) prior to application to land.	
There are no leakages to water (including ground water) or land from your effluent storage structures.	
<b>Good practice:</b> Ensure pumps, pipelines, hydrants, connections and irrigators are all well maintained and managed. Most incidences of non-compliance are due to poor maintenance. For more information refer to <i>A farmer's guide to managing farm dairy effluent</i> , available from <a href="http://dairynz.co.nz">dairynz.co.nz</a>	
Effluent storage systems must be used and must comply with the following: <ul style="list-style-type: none"> <li>the volume of all systems constructed or modified after 30 September 2013 will be determined using the Dairy Effluent Storage Calculator for the Auckland Region 2012</li> <li>all new and modified effluent storage systems must be sealed and the permeability of the sealing layer must not exceed <math>1 \times 10^{-9}</math> m/s</li> <li>certifications for volume and permeability of the sealing layer must be submitted to the council once the new storage system is completed</li> <li>farms with sump only storage, must construct a storage system to meet the new rule standards by 30 September 2021.</li> </ul>	
Contingency measures are in place in the event of a system failure (e.g. additional storage capacity or an alternative method of disposal).	
Effluent solids, sludges and slurries are stored on sealed surfaces or spread evenly on pasture to avoid overloading.	
A stormwater diversion must be in place to direct stormwater from ancillary roof areas and hardstand areas which do not hold animals or animal products away from the effluent storage system.	
Application	
<i>Getting the right amount of effluent on the soil at the right time and in the right place</i>	
The application area is large enough to meet the permitted activity requirements for nitrogen loading	
Application rates are controlled using irrigator speed, nozzle size, pump pressure etc to ensure that effluent can be applied in a way that does not result in effluent runoff to waterways or ponding of effluent	
Discharges must not result in ponding of more than 3 hours duration.	
Effluent is not applied on areas with subsurface drains unless precautions are taken to prevent discharges to surface water via the drains.	
A nutrient budget must be available for Auckland Council that shows that nitrogen loading rate limits are being met. It is recommended that OVERSEER® or similar model that takes into account all sources of nitrogen, be used to plan and carry out the effluent applications. <i>Contact your dairy supply company for assistance as they are likely able to provide you with the Overseer nutrient budget information you need.</i>	
People and systems	
<i>These factors will help you and your staff to comply</i>	
Everyone in the farming operation understands the importance of effluent management and the consequences of non-compliance. For more information refer to the <i>Effluent management plan</i> poster, available from <a href="http://dairynz.co.nz">dairynz.co.nz</a>	
Everyone knows what to do if something goes wrong.	

## Significant other sources of effluent/nutrients outside of the dairy

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



<b>Feedpads and standoff pads</b> <i>Feedpads and standoff pads are increasingly being used across the region and can be a significant source of dairy effluent. The following are requirements for these pads:</i>	
All new and modified feedpads and permanent standoff pads must be sealed and the permeability of the sealing layer must not exceed $1 \times 10^{-9}$ m/s.	
Certification of the permeability of the sealing layer of all new and modified feedpads and permanent standoff pads must be submitted to the Council upon completion of the system.	
Effluent from standoff pads must be contained within the pad area and either discharged to the effluent storage system or directly applied to the effluent discharge field or disposed of in a lawful manner off-site.	
<b>Silage Storage</b> <i>Silage leachate is very acidic, contains high levels of nutrients and as a result is extremely toxic to waterways. Preparing and storing silage well is the best way to minimise leachate. Generally, store silage away from waterways and tile drains and avoid areas that are prone to flooding or have a high water table. The following are the requirements for silage storage:</i>	
<ul style="list-style-type: none"> <li>All new or modified silage storage facilities must be situated on a sealed pad and the sealing layer must not exceed <math>1 \times 10^{-9}</math> m/s. This is most commonly achieved with a clay liner or concrete pad.</li> <li>To minimise silage leachate generation, the silage storage facility must be securely covered and stormwater diverted away from the storage area.</li> <li>Silage storage facilities must not be located within 20m of a surface water body, flood plain or the coastal marine area.</li> </ul>	
Storage of baleage, hay and wrapped silage do not require storage on a sealed pad, however if significant leachate is generated it would require appropriate management.	
For existing silage storage it is recommended that it is well covered and not located near any drains (at least 20 m away).	
<b>Races</b> <i>Races, especially the entry and exit to the yard for milking can be a hot spot for effluent accumulation.</i>	
Ensure that cows are not hanging around these entry and exit race areas for too long.	
If effluent is building up ensure the effluent ends up in nearby paddock, not into the drainage system. This may require some remedial re-sloping of the race area.	
<b>Disposal of dead stock and offal</b> <i>Disposal of dead stock and offal onto or into land.</i>	
The disposal must be into an offal hole, shallow trench or by composting.	
Offal holes or trenches must not be located within 20m of a surface body, floodplain or the coastal marina area.	

## Waterway and riparian management

### Waterway and riparian management when carried out effectively will:

- Filter sediment and pollutants
- Take up nutrients that would otherwise enter waterways
- Prevent stock from entering and fouling waterways
- Enhance stock management, safety and health
- Regulate stream flow and stabilise stream banks
- Enhance biodiversity by improving habitats for bird life and aquatic life
- Enhance the aesthetics and therefore the value of a farm property
- Provide shade and shelter for stock.

For more detailed information see the DairyNZ Auckland Riparian Guide or contact the Auckland council on 09 301 0101 for any questions about riparian enhancement.

## Resource consented operations – i.e. oxidation ponds & discharge to water

All discharges to water require a consent. Your current consent will list the conditions you need to comply with. If your discharge consent is due to expire please contact the council as soon as possible.



Understand your consent	
<i>Getting familiar with the conditions of your resource consent and actively seeking compliance</i>	
Have a copy of your dairy wash water resource consent ( <i>dairy wash water includes plant and yard wash</i> ).	
Ensure all staff are familiar with all of the conditions of your resource consent.	
In the case of sale or purchase the consent must be transferred to the new owner.	
The resource consent issued is specific to the farming operation at the time. If the operation changes, a variation to the consent may be required. For example, a variation may be required if cow numbers increase, or a feed pad is added to the system.	
Infrastructure and maintenance	
Prior to discharge all effluent is contained within the effluent system (pipe work, stone traps, sumps or ponds) as specified in your consent (e.g. there should be no unsealed drains carrying effluent).	
Stormwater diversions from the roof and clean yard washdown areas are recommended, and in some cases are a requirement of your consent. Check your consent.	
Ponds are well constructed and do not leak.	
Pond surfaces are clear of weeds and obstructions.	
The first (anaerobic) pond is routinely desludged (as specified in your consent).	
Ponds are fenced off from livestock.	
There is at least 400mm freeboard maintained on all ponds at all times. (NB: freeboard is the difference between the level of the pond contents and the lowest part of the embankment).	
Suitable baffles or tees are placed on all effluent pond outlets.	
There is no evidence of effluent short-circuiting the system.	
The discharge from the oxidation ponds does not contain solids.	
There is no material other than farm dairy washwater entering your oxidation ponds (unless specified in your 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, Auckland Council and Fonterra take no responsibility whatsoever for the currency and/or accuracy of this information, its completeness or fitness for purpose.

You can check out the rules in more detail in the regional plans at: [aucklandcouncil.govt.nz](http://aucklandcouncil.govt.nz) and then search for unitary plan. The sections of most relevance are:

- E35 Rural production discharges
- E11. Land disturbance- Regional
- E3. Lakes, rivers, streams and wetlands

## Contacts

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>	Sustainability team 0800 65 65 68
<b>Auckland Council</b>	Rural and wastewater team 09 301 0101
<b>Federated Farmers</b>	0800 Farming (0800 327 6464)
<b>Primary ITO</b>	0800 80 20 80