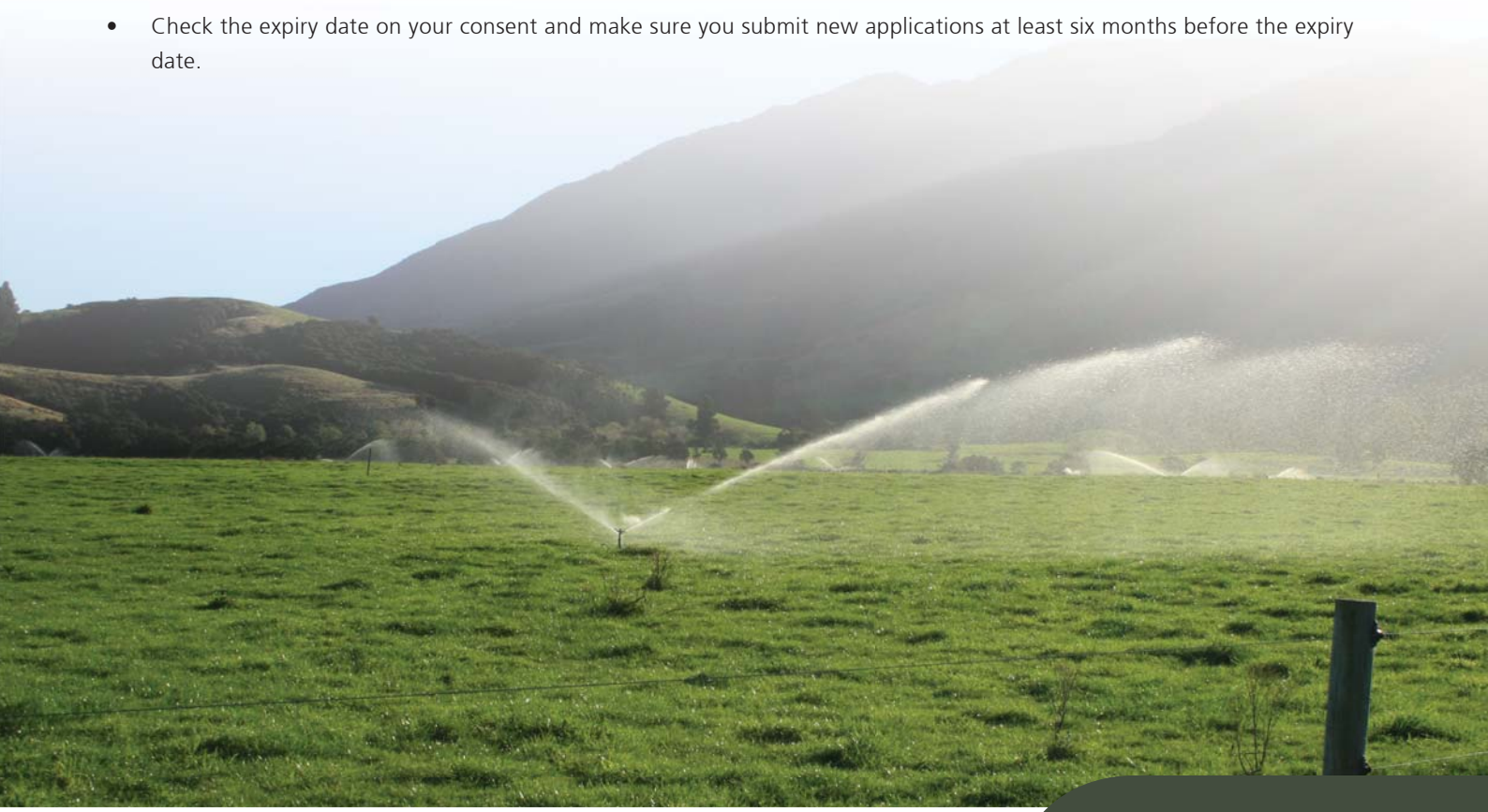
Dairy farm effluent

– the rules for achieving compliance in Southland

This checklist is a self audit to give farmers confidence they will pass an Environment Southland 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 but will likely be in your next consent. 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
- Check the expiry date on your consent and make sure you submit new applications at least six months before the expiry date.



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DairyNZ

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Southland checklist

1. Get familiar with the conditions of your consent and actively seek compliance	
Much of the non-compliance reported in Southland 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	
No significant farm system changes have been made since the effluent system was designed as covered by your consent (i.e. type of irrigator, underpass, wintering pad, new pond etc)	
Effluent is only 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	
A copy of your effluent consent is displayed in a prominent place in the dairy shed[1]	
A copy of the effluent management plan has been provided to all employees	
Consent is current and previous consents that are no longer required have been surrendered	
All other requirements of the consent have been fulfilled	
If property has been bought/sold consent has been transferred to the new owner	
2. Have an effluent system that is capable of complying with your consent conditions, in terms of 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* • *Check actual effective area that will have effluent applied and allow a buffer for waterways/boundaries*	
There is sufficient effluent storage for times when soil moisture levels are high[2]	
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 sealed holding pond	
The depth (mm) and rate (mm/hr) of effluent application has been measured and it satisfies the requirements of the consent	
The application area is large enough to meet the requirements of the consent for N loading[3]	
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, pond storage capacity, unblocking stirrer, nozzles, tyres, checking pipes, hydrants, stone traps	
Contingency measures are in place in the event of a system failure[4]	
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 (less than 7mm depth) on pasture to avoid over loading with nutrients in one area[5]	
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 area[6]	
A fail-safe device is in place to reduce the risk of a discharge if anything goes wrong	
All areas used to store or transport effluent or sludge are sealed[5]	

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 ponding and effluent runoff. Generally no irrigation of effluent to pasture should occur when rainfall results in the soil becoming saturated (i.e. free water appears on the soil when squeezed).[7] Refer to the soil moisture information on www.es.govt.nz if you do not have your own	
At an appropriate depth (mm) for the soil and within the limit specified on your consent	
At least 20 metres between the edge of the application landing area and waterways and adjacent property boundaries, and within the area specified on consent[8] 100m from any existing potable water abstraction point 100m from any residential dwelling	
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 on a daily basis)	
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 ***Good practice:*** Record effluent irrigator runs – where, date, number of returns etc	
External training courses are utilised to increase understanding of good practice	
5. Check for other sources of effluent outside of the dairy	
Ensure that runoff from other hard stand areas is directed into your effluent system, and that the volume is included as part of your effluent consent. ***Such areas might include:***	
Feed pad effluent	
Stand-off pad effluent	
Underpass effluent	
Bridges/culverts	
Laneways (entry and exit points)	

[1] Not all consents require this, but it's a good idea anyway. If you would like a copy of your consent, call Environment Southland

[2] Storage requirements are dependent on many factors

[3] Refer to your nutrient budget in order to determine your farm's N loading on your effluent application area

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

[5] Sealed means does not leak, such as concrete, lined or compacted clay (where the soil type is suitable to do this)

[6] 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

[7] 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

[8] Defined as surface water body, drainage canal, drain and bores

Other Environment Southland Rules

Remember there are regional plans for Southland that might have rules relating to activities on your farm. Of relevance are the Regional Water Plan, the Solid Waste Management Plan and the Effluent Land Application Plan.

Examples where resource consents may be required include the following:

6. Farm dumps	
Any solid waste generated from farming activities, that is disposed of into or onto land will require a resource consent if you are not able to meet the criteria listed below:	
The solid waste is generated on the farm, on which the disposal site is located	
No offal is placed in the dump	
No hazardous waste, sludge, oil or chemical containers with chemical residues are disposed of in the dump	
No solid waste is deposited into any water body	
No surface water runoff enters the farm landfill	
No waste is deposited within 50m of a watercourse, potable water supply or property boundary	
7. Offal holes	
Placing farm offal into an offal hole requires a resource consent if you are not able to meet the criteria listed below. The offal holes must be:	
Located more than 50m from any watercourse	
Excavated at least 24 hours before they are used	
In a location where water will not accumulate in the bottom of the hole, nor surface runoff able to flow into the hole	
No offal is deposited within 50m of a watercourse, potable water supply or property boundary	
8. Silage pits and stacks	
The location of silage pits and stacks can affect water quality in some circumstances. The movement of leachate onto or into farm land from silage pits requires resource consent unless you ensure you meet the following criteria:	
The silage storage facility is not located; • within 50 m of any surface water body or naturally occurring wetland, or any potable water abstraction point, *or* • within 100 m of any dwelling or place of assembly, on another landholding constructed or in use prior to the silage storage facility being lawfully established, *or* • on land that is contaminated, permanently or intermittently wet, unless the silage is stored on a sealed concrete pad with all leachate controlled.	
There is no discharge of any noxious, dangerous, offensive or objectionable effect beyond the boundary of the landholding or on waàhi tapu or archaeological sites	
There is no discharge of contaminants to any water or naturally occurring wetland	
There is no overland flow of stormwater into the silage storage facility	

9. Effluent sludge application to land	
Discharge of effluent sludge to land can cause an environmental impact if it is not carefully managed. Sludge application will be non compliant if you are not able to meet the following criteria:	
Applied at least 100m from any residential dwelling other than those on the property	
At least 20m from any waterbody, wetland or coastal marine area	
Lane way scrapings are stockpiled on a sealed surface that does not leak, such as concrete, lined or compacted clay	
10. New dairy conversions	
All new dairy conversions in Southland have to apply for four resource consents before converting:	
1. Discharge Consent for the discharge of dairy shed effluent 2. Water Consent to take ground or surface water for stock watering and dairy shed wash down. 3. Land use Consent to convert the property to a dairy farm. Includes profiling the soil to determine its suitability for intensive farming, and an environmental management plan to mitigate environmental risks 4. Land use Consent to install an effluent pond Additional consents may be required for the use of water bores or gravel extraction for example.	

Contacts

You can check out the rules in the regional plans at: www.es.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)
Environment Southland	0800 76 88 45
Federated Farmers	0800 Farming (0800 327 6464)
Primary ITO	0800 80 20 80