

# Coping with full effluent ponds

*Support and advice for farmers*

4 December 2014

## *The situation for Southland/South Otago farmers*

The current soil moisture conditions and rainfall has made effluent management very difficult for many Southland/South Otago farmers.

Frequent rainfall and saturated soils has prevented effluent being applied to land and causing storage ponds to reach capacity or be close to overflowing.

DairyNZ and the Southland Dairy Effluent Advisory Group have put together some tips on 'what to do' if you are facing this situation and contact details to help farmers actively manage their effluent ponds during the busy calving period.

## *What's the risk to my farm?*

Overflowing ponds or spreading effluent onto saturated soils can result in surface ponding or run-off to a waterway. This is not acceptable for Environment Southland and will likely cause regional council staff to issue non-compliance notices with potential abatement or infringement notices.

The dairy industry expects dairy farmers to be compliant 365 days a year so we can demonstrate we are showing good environmental stewardship.



## *If I'm facing this issue what can I do?*

If your effluent storage is full, or above normal levels during calving, and soils sites are saturated here are some things for you to consider:

### **1. Understanding soil moisture deficit and how much you can irrigate**

- Environment Southland soil moisture sites are mainly red at the moment but they are indicative of an area only. Your farm might be different due to location, rainfall and soil drainage.
- If you think that you might have some space for irrigation in your soil profile it would pay to actively monitor a test first, to see how much you could apply before ponding or runoff occurs. This could be achieved through a 15min test of your irrigation to see if ponding occurs.
- We would suggest that effluent irrigation depths be very low at this time, through a low rate system or somewhere below 5mm application depth. This could be achieved by speeding up your irrigator to its fastest setting or if you have a pod system lowering your run time to allow less than 5mm application depth.
- Record any effluent irrigation events to show that they were actively monitored. You could look at testing the nutrient content of the effluent as with the amount of rain entering the system this could be lower, allowing more applications in the year.
- Keep a close eye on weather forecasts and be ready to start or stop applications when the weather conditions change.
- Where possible use any technology available to try to measure this soil moisture deficit. You could look at neighbours if they have any technology such as soil moisture tapes or probes. This might be a consideration for your own farm in the future.

### **2. Understand the regulations on your consent conditions**

- Have a read of your conditions of your resource consent to understand where and when you can irrigate effluent. Make sure you stay inside your application area when looking for a place to irrigate.
- Within your effluent irrigation area be selective, look for the most low risk soil to irrigate on. To do this you could look for low risk areas on your farm in the effluent soil classification map on the Environment Southland website.
- Investigate where your tile drains are located and avoid these areas when selecting irrigation sites to ensure there are no discharges to water. Also do not irrigate in areas that lead to effluent entering the waterway.
- You should be looking to actively monitor your irrigation event to avoid ponding or over application. If a problem does arise with your irrigation you should look to contact Environment Southland as soon as possible to help mitigate the issue.
- If unsure of your conditions, contact Environment Southland for a copy of consent conditions.
- When irrigating actively monitor nearby waterways to ensure that effluent is not entering a those waterways.



### 3. Reduce water entering into your effluent system

- Investigate options for efficient water use in the farm dairy. Look at repairing any leaks, use scrapers to remove effluent, look at the nozzles on your hoses and their performance, and train your staff on how to wash a yard with minimal water.
- Storm-water diversions will reduce the amount of effluent you will have to manage, especially during periods of heavy rain. Ensure all rain water collected from the dairy shed roof and other sheds are diverted away from the effluent system. If you are using them between milking's on your farm, ensure the yard is clean and devise a fail-safe system that gets people to check the diversion before each milking.

### 4. Have excess effluent removed from your pond and property

- Contact an effluent spreading contractor to help reduce effluent in your pond.
- We would suggest that this is a good option for farmers to contract this work out
- Make sure the contractors are aware of the consent conditions in terms of area to apply to, depth, ponding and runoff.
- If they are using Slurry tankers farmers need to be aware of the compaction issues that these machines could place on the farm and the time between application events and cows returning to grazing that pasture.
- If they are using an umbilical system being aware of tile drains, distance to waterways, boundaries and dwellings.
- Look at using a slurry/vacuum tanker to take effluent to other supporting blocks or farms which have resource consent to apply to land and a soil moisture deficit.

### 5. Other issues to consider

Ensure your employees are aware of the issue and have adequate training on managing your system. Where the high and low risk areas are on your farm and with your system. What is your policy for effluent management in wet weather and who is in charge of monitoring the irrigation events

#### *For further tips or suggestions please contact*

If you are having concerns or are uncertain of what to do, please contact Environment Southland directly on 03 211 5115 or 0800 768 845, ask to talk to a compliance officer.

**DairyNZ** 03 218 2274

#### **Milk Supply Company**

**Fonterra:** Cain – 027 703 1743, Brian – 027 703 6550

**Open Country:** Myles – 021 222 4263, Carl – 021 868 762