

# Farm Dairy Effluent – managing treatment ponds



Inexpensive stormwater control. Pipe to pond blocked when yard clean.



A well set-up "Tee" and discharge pipe.

Feed pads need increased treatment capacity.



Two well designed, constructed and managed pond systems. The photograph (above) shows the last three ponds in a four pond system. The third pond in the photograph (below) discharges to a constructed wetland.



Good pipework but excessive solids and weeds in anaerobic pond.

## For further information

Please contact members of the Regional Council's Farm Dairy Effluent Team on 0800 002 004 or e-mail [mailroom@nrc.govt.nz](mailto:mailroom@nrc.govt.nz)



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CARING FOR NORTHLAND AND ITS ENVIRONMENT

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Colliers Design and Print Co. - June 2006

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## 1 Gravel Trap

Clean regularly. Gravel and clay from races etc. will quickly reduce pond capacity and are difficult to remove when desludging.

Keep rubber gloves, cows' tails, bits of wood and other rubbish out. Blocked pipes will cause systems to fail.



Drive-in gravel trap, not working. Must be cleaned regularly.

## 2 Effluent Volume

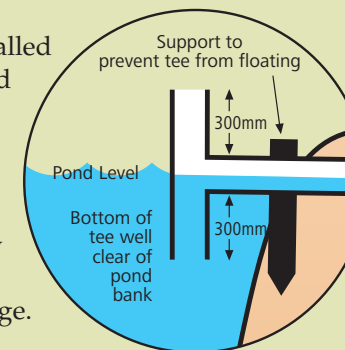
- Lower volume = better treatment (ponds need at least 90 days effluent retention).
- Stressed cows = more effluent loading.
- Dung and urine is best left on the paddock.
- Gentle handling of cows reduces effluent loading and improves production.
- Divert excess cooling water.
- Avoid overflowing tanks, troughs and hot water cylinders.
- Fix any pipe/hose leaks promptly.
- Optimise hose down time.
- Water-driven backing gates can use excessive water.
- Dungbuster type systems are time and water efficient.

## 3 Stormwater Control

- Divert stormwater from the buildings and clean yards away from the ponds.
- **Note:** Stormwater from feed and standoff areas must NOT be diverted unless these areas are washed.
- Divert catchment stormwater away from the ponds.

## 4 Pipework

- **Installation.** Support and protect from damage by stock and machinery. Compact the soil where pipes pass through embankments.
- **Layout.** Outlets diagonally opposite inlets to maximise effluent retention time.
- **Tee piece.** Properly installed to prevent blockages and retain solids. There should be no sludge accumulation in the second pond.
- **Maintenance.** Routinely check all pipework for blockages and/or damage.



## 5 Sludge

- Desludge as required.
- Heavy surface crusting and/or excessive build up of bottom sludge/gravel indicate desludging is required. If you need to clean your anaerobic pond more than once every two years it is probably too small.
- The pond must be thoroughly stirred to achieve effective sludge removal.
- When desludging, apply the sludge away from drains and waterways.

## 6 Weeds

- Spray pond surfaces as required and control weeds on pond embankments routinely.

## 7 Embankment Condition

- Check routinely for seepage and damage. Damage by animals or machinery and erosion by weather can result in embankment failure.

## 8 Discharge Quality and Effects

- Check routinely. If the discharge is discolouring the receiving waters you are unlikely to comply with your resource consent conditions.



Poor quality discharge polluting a stream.

