

Fact sheet 7 - Effluent Management

Areas of Concern

- The need to comply with EPA regulations
- Property is in the catchment area of the Lance Creek Reservoir
- Original single-pond effluent system too small for the amount of effluent produced
- Potential of effluent overflowing from pond
- Danger of effluent pond bank being washed away
- Effluent not being utilised as a fertiliser (wasted nutrient)



Actions

- Cleaned existing pond
- Enlarged existing pond and built a second pond
- Set up water recycling system for washing yard
- Purchased effluent pump, pond stirrer, travelling irrigator and poly pipe
- Irrigating pastures with effluent and utilising the nutrients in effluent as a fertiliser



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Costs (approximate, as at July 2009):

Capital

Building a new pond: Approximately \$2,000 per mega litre depending on terrain, soil type and location

Enlarging an existing pond: \$3,500 per mega litre again depending on terrain, soil type and location

Floating Effluent Pump: \$3,500 – \$11,000 (2 hp – 10hp)

Pontoon: \$700 - \$2,000 depending on pump characteristics

Power installation for pump: \$2,000 – \$10,000 depending on source of supply, and pump characteristics. **Note:** The need to investigate to see if enough power is available to actually drive the pump.

Effluent stirrer: \$4,000 - \$10,000 (depending on model and length of shaft). These can be either tractor driven or powered by a stationary engine or electricity.

Travelling irrigator: \$3,500 - \$9,000 depending on the size of drag hose required.

OR Stationary Sprinkler: up to \$2,500

Poly pipe or uPVC plastic pipe: 75 mm diameter: \$3 per metre

90 mm diameter (pump water further with less hp): \$6 - \$11 per metre

Recycling system for yard wash: Cost of system greatly varies depending on distance from dairy, size of pipes, type of pump and electricity requirements.

Additional Electrical work: get an electrician to quote for your particular situation

Ongoing Management & Maintenance

- Diesel and electricity for pump and stirrer
- Replacements for hoses and fittings
- Depreciation of equipment
- Labour cost of moving irrigator and pipe work: approximately 2 hours for a full day of pumping depending on equipment size and type

Benefits

- Complying with EPA regulation
- Fertiliser savings (particularly nitrogen and potassium)
- Improved soil health
- Irrigation of the effluent as water to kick start the season and nutrients to keep it going
- Water savings through recycling of the water component of the effluent for yard wash