

The Issues



What are the effects on the environment?

The effects of dairy effluent on the environment vary depending on the level of treatment and the receiving environment. The organic processes that break down dairy effluent require a lot of oxygen. Therefore when effluent is discharged to a watercourse this can significantly reduce the ability of the water to support aquatic life. The addition of nutrients to water commonly results in rapid growth of weeds and algae, which can then lead to further loss of oxygen as the plants die and decompose. When effluent is continually discharged to a waterway, the water quality can deteriorate to a degree that most dissolved oxygen is removed.

What are the issues?

Dairying has impacts on the environment that can have adverse effects on other natural environment users. Farm dairy effluent contains a number of contaminants that can impact on the environment, particularly surface and groundwater. The sustainability of dairy farming depends on reaching a balance between the financial, social and environmental issues that arise as a result of the activities involved in dairying.

The contaminants are:

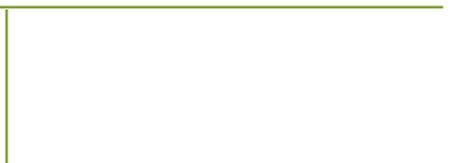
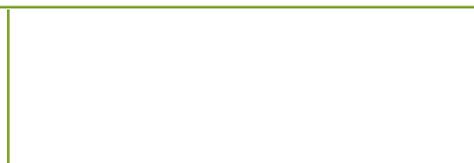
- Organic matter
- Nitrogen
- Phosphates
- Suspended solids
- Pathogens

How does farm dairy effluent pollute the environment?

Dairy effluent is rich in nutrients from animal faeces, urine, and milk, but also contains detergents and other chemicals used in the cleaning of milking equipment.



Effluent polluting waterway





Land disposal methods such as irrigation can result in high loading rates, if not managed properly, which can potentially lead to nitrate contamination of groundwater and waterways (due to runoff).

Pathogens entering waterways, including domestic or stock water, can make the water unsuitable for other downstream users.

Polluted streams emptying into harbours and estuaries can adversely affect food-gathering sites such as pipi beds.

The introduction of any human or animal waste into waterways is offensive to many New Zealanders, both Maori and Pakeha. Tangata whenua regard water as having its own mauri (life principle) and this can be damaged or destroyed by pollution.

Although the amount of effluent discharged by a single dairy farm may be relatively small, the accumulative effects of many dairies contributing to one catchment can be significant.

Small watercourses and drains still have ecological value and should be protected from stock as many species use these as thoroughfares to major waterways and for spawning and hatching their young.

How does Environment Bay of Plenty manage this activity?

Environment Bay of Plenty manages the disposal of farm



Irrigation of dairy effluent to land

dairy effluent by way of conditions on resource consents to authorise the discharges.

Catchment areas contributing to lakes and confined water bodies are considered to be the most sensitive hence effluent discharge guidelines for those areas are somewhat stricter than for less sensitive areas.

Effluent is normally treated and disposed of in one of three ways: discharging treated effluent to surface water, pond soakage into the ground or irrigation onto pasture. Many farms use a combination of two or more of these methods to manage their effluent. Resource consents are granted for various terms (up to 20 years for well designed and managed pasture irrigation systems), which to some extent reflect the actual or potential adverse effect on the environment of the different disposal systems.

Other fact sheets available

- Land based systems
- Discharges to surface water
- Feed pads - loafing pads - farm races
- Silage stacks



For further information and advice, contact Environment Bay of Plenty:

Telephone: 0800 ENV BOP (368 267)
 Facsimile: 0800 ENV FAX (368 329)
 Pollution Hotline: 0800 73 83 93
 Email: info@envbop.govt.nz
 Website: www.envbop.govt.nz
 Address: 5 Quay Street, P O Box 364, Whakatane, New Zealand

Farm dairy information is also available at: www.dexcel.co.nz

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