

Legal Requirements and Constraints

Guideline No 17.



Dairy farmers have a legal responsibility to manage their dairy effluent so that it does not pollute the soil, groundwater or surface water. Failure to comply with this could lead to prosecution.

This guideline reviews sections of

- the Environment Protection Act, 1993;
- The Environment Protection (Water Quality) Policy 2003
- the Dairy Authority Code of Practice for Dairy Food Safety
- the Environment Protection and Biodiversity Conservation Act 1999

In South Australia there are many land uses and management practices which have the potential to cause soil and groundwater pollution. Most of the major effluent producers are licensed under the *Environment Protection Act, 1993*, which ensures that wastes are properly managed in order to minimise any pollution problems. However, dairies are exempt from licensing under the Act because of the practical problems associated with trying to deal with so many individual operations. There are other powers under the Act to control pollution from dairies (as outlined in this Guideline), but these will only be enforced by the Environment Protection Authority (EPA) if alternative courses of action have not worked. Through the implementation of this series of Dairy Effluent Guidelines, all dairies should have satisfactory effluent disposal systems, which will not cause environmental harm.

Dairy farmers have a legal responsibility to manage all dairy shed effluent so that it does not pollute surface water, groundwater or the soil. Anyone failing to comply may face prosecution under the *Environment Protection Act 1993*.

Environment Protection Act, 1993

Responsibility for pollution

4. For the purposes of this Act, the occupier or person in charge of a place or vehicle at or from which a pollutant escapes or is discharged, emitted or deposited will be taken to have polluted the environment with the pollutant (but without affecting the liability of any other person in respect of the escape, discharge, emission or depositing of the pollutant).

Objects of the Act

10. (1) The objects of this Act are:

(a) to promote the following principles ("principles of ecologically sustainable development"):

- (i) that the use, development and protection of the environment should be managed in a way and at a rate, that will enable people and communities to provide for their economic, social and physical well-being and for their health and safety while -

- (A) sustaining the potential of natural and physical resources to meet the reasonable foreseeable needs of future generations; and
 - (B) safeguarding the life-supporting capacity of air, water, land and ecosystems; and
 - (C) avoiding, remedying or mitigating any adverse effects of activities on the environment
- (ii) that proper weight should be given to both long and short-term economic, environmental, social and equity considerations in deciding all matters relating to environmental protection, restoration and enhancement; and
- (b). to ensure that all reasonable and practicable measures are taken to protect, restore and enhance the quality of the environment having regard to the principles of ecologically sustainable development and -
- (i) to prevent, reduce, minimise and, where practicable, eliminate harm to the environment –
 - (B) by regulating, in an integrated, systematic and cost-effective manner - activities, products, substances and services that, through pollution or production of waste, cause environmental harm; and - the generation, storage, transportation, treatment and disposal of waste; and
 - (ii) to coordinate activities, policies and programs necessary to prevent, reduce, minimise or eliminate environmental harm and ensure effective environmental protection, restoration and enhancement; and
 - (v) to require persons engaged in polluting activities to progressively make environmental improvements (including reduction of pollution and waste at source) as such improvements become practicable through technological and economic developments; and
 - (vii) to provide for monitoring and reporting on environmental quality on a regular basis to ensure compliance with statutory requirements and the maintenance of a record of trends in environmental quality; and
 - (ix) to promote -
 - (A) industry and community education and involvement in decisions about the protection, restoration and enhancement of the environment.

General Environmental Duty

25.(1) A person must not undertake an activity that pollutes, or might pollute, the environment unless the person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm.

Penalties

Enforcement action for non-compliance with the *Environment Protection Act 1993* can range from warning letters, environment protection orders and clean-up orders through to prosecutions for causing environmental harm with maximum fines of up to \$2,000,000 fines and terms of imprisonment.

On-the-spot fines may also apply if you have failed to comply with an environment protection order or breached a mandatory provision of an environment protection policy.

Environment Protection (Water Quality) Policy 2003

The *Environment Protection (Water Quality) Policy 2003* is one of a number of legislative tools provided for by the *Environment Protection Act 1993*. It imposes general obligations on the operator or owners of all activities that produce wastes to avoid the discharge of wastes into any waters, or onto land from which it is reasonably likely to enter any waters. Dairy effluent must be managed in such a way that it remains on the farm and it does not contaminate surface water or groundwater resources.

This means that the effluent must be managed so that its nutrients can be utilised on the farm without off-site impacts.

The *Environment Protection (Water Quality) Policy 2003* makes it mandatory for all dairies to have an effluent management system that is operating effectively while being used for milking purposes. It contains requirements relating to the location, construction and management of dairy effluent ponds. It also states that the EPA's 2003 *Code of Practice for Milking Shed Effluent* applies to the operation of a dairy. Amongst other things, the latter Code contains requirements about the storage and spreading of dairy effluent and solids. These are also summarised in **Guideline No. 4: Choosing An Effluent management System**.

A copy of the *Environment Protection (Water Quality) Policy 2003* can be downloaded from the EPA's web site at: www.epa.sa.gov.au/pdfs/epwg_report.pdf and the Code of Practice for Milking Shed Effluent can be found at www.epa.sa.gov.au/pdfs/milking_shed.pdf

Dairy Authority of South Australia

The Dairy Authority of South Australia's Code of Practice for Dairy Food Safety (June 2005) sets out minimum mandatory standards for the production of milk to safeguard public health.

The following sections from the Code are relevant to the disposal of dairy shed effluent.

“3.2.2 Chemical Contaminants

3.2.2.3 Environmental Contaminants

Hazards relating to the location, water source, previous use of and activities of neighbouring properties of a dairy farm must be identified and managed in order to prevent the risk of environmental contamination of the milk.

3.2.3 Microbiological Contaminants

3.2.3.2 Environmental Contaminants

Water and other environmental factors must not be a source or vehicle for transmission, directly or indirectly, of environmental pathogenic microbiological contaminants to the milk.

Hazards relating to the location, water source, previous use of and activities of neighbouring properties of a dairy farm must be identified and managed in order to prevent the risk of environmental contamination of the milk.”

By complying with these Guidelines for the disposal of dairy shed effluent you will fulfil the requirements of the Authority's Code of Practice for Dairy Food Safety.

Development approval under the *Development Act 1993*

Any new dairy development proposal or modification/extension to an existing dairy must be approved by the relevant local council under the *Development Act 1993*. Any dairy effluent lagoon that is proposed in its own right also constitutes a 'development' in certain council areas and certain planning zones (please check with your local council if you are planning to install lagoons). Schedule 8(10)(b) and Schedule 21 of the *Development Regulations 1993* requires all dairy development applications that relate to dairies used for the milking of more than 100 cows in a water protection area (as declared under the *Environment Protection Act 1993*) to be referred to the Environment Protection Authority (EPA) for assessment and advice.

Any development application for a new dairy should be accompanied by a well prepared information package which includes written details and plans of:

- the location of the dairy and associated yards, effluent treatment, storage and utilisation systems;
- the design and layout of the dairy and associated facilities;

- the scale of operation, including maximum number of cows to be milked and the estimated volume of effluent to be generated and managed;
- how the dairy and associated facilities will be cleaned and how the effluent will be managed;
- any dairy effluent lagoon(s), including:
 - sizing (volume, depth etc.)
 - construction design
 - nature of soils in proposed lagoon area
 - approximate depth to any seasonal high groundwater level in the proposed lagoon area
 - proposed lagoon lining method
 - location and design of any groundwater monitoring bores
 - proposed methods for cleaning out/desludging the lagoons
- an effluent irrigation management plan, including:
 - volume and nutrient composition of the dairy effluent to be irrigated
 - nature of the soils in the irrigation area
 - depth and quality of the groundwater beneath the irrigation area
 - how the effluent will be applied
 - the water balance of the irrigation area
 - the hydraulic loading rate of the irrigation system
 - the amount of nutrients which will be applied at each irrigation
 - approximate frequency of irrigations
 - evapotranspiration and nutrient uptake rates of the crops/pasture to be grown
 - how the crop/pasture will be ultimately harvested and used
 - average daily growth rates for the crops or pasture for each month of the year
 - the nutrient balance for the irrigation area
 - any sampling and monitoring of soils, vegetation and/or groundwater to monitor the fate of the nutrients applied during effluent irrigation.

In order to properly prepare and present much of this information for development application purposes it is recommended that professional assistance be sought.

Assuming all of the above information (where relevant) is supplied with a dairy development application, and that the proposed dairy and associated effluent management system is in line with the *Code of Practice for Milking Shed Effluent 2003*, the EPA is likely to recommend approval of the plans subject to certain conditions. Provided the plans then meet local council's building requirements, the plans should be approved.

The Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) is a Commonwealth act which protects the environment, particularly matters of National Environmental Significance. This act applies to dairy farmers when dairying activities, including waste management and spreading, are likely to have a significant impact on a matter of national environmental significance, or the environment on Commonwealth land. This may include potential impacts on listed species of wildlife or wildlife habitat.

Approval to undertake such activities is required from the Federal Minister for the Environment. It is the responsibility of the dairy farmer to determine whether their activities trigger the provisions of the EPBC Act and to apply for approval.

The EPBC Act can be accessed on the Department for the Environment and Heritage web site at <http://www.deh.gov.au/epbc/index.html>

The web site also has a search facility “**What’s protected near you?**” through which you can search your locality for issues of significance by selecting by local government areas, co-ordinates, or a map.

EPBC Act – Considerations for the Fleurieu Peninsula

The swamps of the Fleurieu Peninsula are endemic to the region and listed as nationally critically endangered. They provide habitat for a number of threatened species, including the Mount Lofty Ranges Southern Emu wren. The swamps are wetlands occurring in high rainfall areas in the catchments of the Tookayerta, Hindmarsh, Parawa, Myponga, Yankalilla, Onkaparinga, Currency Creek and Finniss. They are densely vegetated and occur adjacent to waterlogged soils around low lying creeks and flats.

If dairying activities could have a significant impact on these swamps, approval for the activities is required from the Federal Minister for the Environment under the EPBC Act 1999.

EPBC Act – Considerations for the Coorong and Lakes areas

The coastal and marine wetlands of the Coorong and Lower lakes (Lake Alexandrina and Lake Albert) are wetlands of international and national importance.

If dairying activities could have a significant impact on these wetlands, approval for the activities is required from the Federal Minister for the Environment under the EPBC Act 1999.