

The Purpose of the Guidelines

Guideline No 2.



- *The guidelines provide practical advice on how to set up and manage an effluent system on your dairy farm so that it meets the outcomes and standards required under environmental legislation.*
- *The guidelines link into the nationally accepted waste management hierarchy.*
- *The guidelines help you to preserve our natural resources.*
- *The guidelines are part of a program of assistance to help dairyfarmers choose an effluent management system which suits their circumstances.*

Provide Practical Information

These guidelines are intended to provide practical information on how to meet your obligations under the *Environment Protection Act (1993)* (the Act).

The Act and instruments under the act such as the *Environment Protection (Water Quality) Policy 2003*, and the *Code of Practice for Milking Shed Effluent 2003* specify required outcomes or standards which must be met by all dairies. They do not, however, provide information on how you can attain these outcomes or standards.

The purpose of these guidelines is to provide information and options which will help you meet these outcomes or standards.

Waste Management Hierarchy

The waste management hierarchy sets out the preferred order of waste management practices from most preferred (avoidance) to least preferred (disposal). These are:

- **AVOID** producing the waste in the first place
- **REDUCE** the amount of waste produced (more efficient processes)
- **REUSE** any waste that is produced (reuse without re-processing)
- **RECYCLE** any waste that is produced (re-process to create new product)
- **RECOVERY** of waste to create energy
- **TREAT** the waste in a suitable way
- **DISPOSE** of the waste in a suitable way.

Clearly dairies are unable to avoid the production of wastes at the dairy, and the management of the wastes will entail some of the options listed in the hierarchy.

These guidelines link into the waste management hierarchy by providing information which will enable dairyfarmers to

- **REDUCE** the amount of waste by reducing water use, and implementing recycling systems
- **REUSE** the waste by applying it to crops or pastures as fertiliser
- **TREAT** the wastes produced to reduce nutrient levels or pathogen levels.

This will enable dairyfarmers to meet their environmental responsibilities and operate their effluent management systems in accord with accepted water management hierarchy principles.

Preserving Natural Resources

The soil and water resources of South Australia are very valuable. Our agricultural industries and prosperity are highly dependent upon their health, and our existence depends on maintaining the health of our groundwater and surface water resources.

One of the long-term aims of sustainable land and water resource management is the development and adoption of better management practices by rural industries so that soil and water pollution is prevented.

Our childrens' future is worth more than our short term complacency

It is illegal to pollute soil, groundwater or surface water and measures must be taken by the dairy industry to ensure that its activities do not cause pollution. Individual farmers are responsible for preventing pollution on their properties and they may be liable for any pollution that may occur.

So what are these guidelines all about and how are they going to impact on me?

These guidelines are part of a program which has been set up to assist dairy farmers to decide on the most effective waste management system for their property and to implement management practices which will minimise the potential for soil and water pollution. They are an update of the first guidelines which were released over 10 years ago and reflect the requirements of new legislation and codes of practice. The revised guidelines also contain new and up-to-date information on dairy shed waste management.

All dairy farmers must have an effluent/waste water management system installed at their dairies. Those dairies which fail to meet these requirements may have an environment protection order (EPO) placed on them to carry out certain works, or be prosecuted, depending on the pollution problems that they are causing.

Aims of the Dairy Effluent Guidelines

The Guidelines are a tool to enable dairy producers to select, design and implement an effluent management system which is most suitable for their particular circumstances.

Objectives

The principle objectives of these Guidelines are:

- To demonstrate the financial and environmental benefits of correct effluent management
- To indicate the minimum standards required to be met in order to minimise groundwater contamination
- To provide information on the advantages, disadvantages and labour requirements of different types of effluent management systems
- To provide the specifications and indicative costs for the components of effluent management systems
- To provide information on management strategies that can be used to minimise the workload required for good effluent management

The Dairy Effluent Guidelines concentrate on the management of dairy shed wastes. While it is recognised that there are other potential sources of soil and water pollution such as silage leachate, farm tracks, disposal of mortalities and intensive feeding or high intensity stocking practices they are beyond the scope of these guidelines. These guidelines will not address in detail the potential pollution arising from these sources.

What support will I have to implement the Guidelines?

The Dairy Effluent Guidelines, together with newsletters, demonstration sites and field days seek to provide dairy farmers with sufficient information so that they can make decisions on which effluent management systems would best suit their particular circumstances. The final decisions on which choices to make lie with each individual farmer and the Guidelines should be used in conjunction with this other information to help make these decisions.

The Guidelines will provide information on a number of effluent management systems and the conditions to which they are most suited. If these systems are effectively installed and managed correctly, they should reduce the risk of pollution to water resources, and farmers should meet their obligations under the Environment Protection (Water Quality) Policy 2003 and the Code of Practice for Milking Shed Effluent 2003.

However, whichever system you install, there will be some time and effort required to operate and maintain the system. These Guidelines contain improved management practices that will help to reduce the time required to operate and maintain the system. These include reducing the amount of water used in washing down the yard and installing storage tanks so that effluent can be recycled. Good planning and design can considerably reduce the amount of time and effort required for effluent management.

The Dairy Effluent Guidelines have been prepared as a series of "fact sheets". This allows the most up-to-date information to be incorporated quickly and easily. Information is therefore easy to find and it allows relevant information from other sources in Australia to be included.

An Excel spreadsheet model has been produced to help dairy farmers check whether their effluent spreading programme is sustainable. Sustainability is based on the mass balance of Nitrogen, Phosphorus and Potassium removed in produce with that added in effluent. To run the model for your farm contact the Dairy Effluent Management Technical Officer for the project, or your Dairy Company Field Officer. Refer to Guideline 19 for contact details.