

## Environmental Assessment Guides for Planners



## SALEYARDS

November 2007

A saleyard can have minimal environmental impact if it is located in an appropriate area and sited, designed and operated properly. If proper care is not taken to address environmental issues, however, it has the potential to cause environmental harm.

For the purposes of this guide, a saleyard is defined as the commercial conduct of yards where cattle, sheep or other animals are gathered or confined for sale, auction or exchange, including associated transport loading facilities, with a throughput not exceeding 50,000 sheep equivalent units per year. When a saleyard proposal exceeds this scale it must be referred to the Environment Protection Authority (EPA) under Schedule 8 Item 11 Schedule 22 (5)(3) of the *Development Regulations* 1993.

The purpose of this guide is to help council planners assess proposals for saleyards from an environmental viewpoint. It focuses on environmental issues and does not deal with the process of assessing proposals against the provisions of the Development Plan.

### Key environmental issues

- Air quality
- Water quality and waste management
- Noise
- Mortalities

### Information requirements

The following environmental information is required to undertake an adequate assessment:

- separation distances from residential or other sensitive receivers
- air quality protection measures
- noise mitigation measures
- water demand and use
- water and soil protection measures including
  - wastewater containment and disposal
  - chemical storage and work areas
  - stormwater pollution prevention
  - solid waste storage and disposal.

Applications lacking any of this information should not be accepted.

**Before you read further:** information about noise in this document may be out of date.

This document is being revised. Please refer to the Environment Protection (Noise) Policy 2007, available at [www.legislation.sa.gov.au](http://www.legislation.sa.gov.au).

## Design features

- The saleyard must be designed and constructed so that all clean rainfall runoff from external areas is directed away from the effluent management system.
- All pens must have a compacted floor surface (similar to council-made roads) and have a consistent uniform slope of between 2% and 6%.
- The effluent storage lagoon must have sufficient capacity to hold a minimum 1 in 20 year average return interval rainfall event of 1 hour's duration, and be lined with a clay or synthetic liner with a permeability of  $1 \times 10^{-9}$  m/s or less.
- The base of the lagoon should be at least 2 metres above seasonal high groundwater level.
- The lagoon should have spillways to cope with overflow during extreme rainfall events.
- Water troughs should be located on the lower side of pens.
- Wastewater and any solids should be disposed of in such a manner that all nutrients are effectively taken up by crops or other vegetation.
- To minimise odour and fire risk, stockpile solids should be maintained at a height of less than 2 metres.
- Separation distances of at least 500 metres from houses, 200 metres from major roads and 100 metres from watercourses are recommended. Sale pens and loading and unloading areas should be provided with sufficient set back from public roads and adjacent properties to ensure that odour and dust does not impact off site.

For more information on design features refer to Appendix 2 and 3 of the *Guidelines for the Establishment and Operation of Cattle Feedlots in South Australia*, 2006.

<http://www.epa.sa.gov.au/pdfs/cattle.pdf>

## Environmental assessment

### Air quality

Odours from a saleyard can be minimised by good design, construction and management. To reduce the odour potential it is recommended that the saleyard pen surface be kept as dry as possible. A compacted pen surface that has a consistent uniform slope between 2% and 6% and a similar surface to council-made roads facilitates this.

Methods to be used to minimise odour, dust and other airborne particles need to be addressed. To minimise dust from the saleyard and vehicle movement, water carts can be used to suppress dust.

### Water quality and waste management

The saleyard must be designed so that all effluent and polluted yard runoff drains efficiently to an effluent management system, consisting of a sedimentation lagoon and a storage lagoon. To assist drainage, water troughs can be sited at the low side of the pens. All solid waste (manure) must be collected and stockpiled so that any runoff is directed to the effluent management system. Land disposal of effluent and manure must be in such a manner that all nutrients are effectively taken up by crops or other vegetation.

## Noise

While much of the work associated with this type of activity is not noisy, there may be some noise from vehicles, stock and loudspeaker systems which can be a nuisance. However, as any proposed saleyard is normally located on the edge of a town or in a rural area, it is unlikely that noise will be a significant issue.

## Mortalities

On-site burial of mortalities is not generally recommended and on-site composting or removal off site, is preferred. Composting needs to take place where external rainfall run off is directed away from the area so that there is no contamination of water resources. Composting should occur on compacted clay or a similar base with a permeability of  $1 \times 10^{-9}$  m/s or less. If on-site burial of dead animals is proposed, it should be in accordance with best practice methods (see *Guidelines for the Establishment and Operation of Cattle Feedlots in South Australia, 2006*) <http://www.epa.sa.gov.au/pdfs/cattle.pdf> to reduce the risk of contamination.

## Checklist of environmental issues

- Adequate separation distances
- Adequate effluent management system
- Appropriate pen floor and yard design
- Procedures to minimise dust and odour generation in place
- Effective controlled drainage area

## Draft standard conditions

### To use and adapt as may be applicable to a specific proposal

1. The saleyard must be designed and constructed so that all clean rainfall runoff from external areas is directed away from the saleyards and associated effluent management system.
2. All saleyard pen floors must be compacted to a standard which ensures that effluent does not infiltrate and contaminate groundwater or soil, and graded to a consistent uniform slope of between 2% and 6%.
3. All effluent and polluted stormwater from pens must be directed to an effluent storage lagoon.
4. The effluent storage lagoon must have sufficient capacity to hold a minimum 1 in 20 year average return interval rainfall event of 1 hour's duration, and be lined with a clay or synthetic liner with a permeability of  $1 \times 10^{-9}$  m/s or less. The lagoon must be maintained at all times to prevent cracking or deterioration of any clay or synthetic lining or barrier.

5. All effluent and manure must be collected, treated, and disposed of in a manner and at a rate that ensures that the nutrients and salt levels in the soil of the disposal area do not pose a threat to soil quality, vegetation, surface or groundwater quality, and that odour does not become a nuisance off site.
6. The composting or manure stockpile area must have a compacted clay or similar base with a permeability of  $1 \times 10^{-9}$  m/s or less.
7. All mortalities must be disposed of immediately upon discovery. Acceptable disposal methods are:
  - a. removal to a disposal area/rendering works
  - b. composting carried out where external rainfall runoff is directed away from the area so that there is no contamination of water resources
  - c. burial

**Note:**

Composting of animals on site is the preferred method of disposal. Burial must be undertaken in line with the *Guidelines for the Establishment and Operation of Cattle Feedlots in South Australia*, 2006.

The following note provides important information for the applicant and should be attached to the approval notice.

The applicant is reminded of their general environmental duty, as required by Section 25 of the Environment Protection Act, to take all reasonable and practical measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm.

## References

*Guidelines for the Establishment and Operation of Cattle Feedlots in South Australia*, 2nd edition, February 2006, available at: [www.epa.sa.gov.au/pdfs/cattle.pdf](http://www.epa.sa.gov.au/pdfs/cattle.pdf)

The *Environment Protection (Water Quality) Policy*, 2003 can be accessed through: [www.legislation.sa.gov.au](http://www.legislation.sa.gov.au)

## **FURTHER INFORMATION**

### *Legislation*

Legislation may be viewed on the internet at: [www.legislation.sa.gov.au](http://www.legislation.sa.gov.au)

Copies of legislation are available for purchase from:

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|--|------------|--|
| Service SA Government Legislation Outlet | Telephone: | 13 23 24   |
| 101 Grenfell Street                      | Facsimile: | (08) 8204 1909   |
| Adelaide SA 5000                         | Internet:  | <a href="http://shop.service.sa.gov.au">shop.service.sa.gov.au</a> |

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### *For general information please contact:*

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|----------------------------------|---------------------|--|
| Environment Protection Authority | Telephone:          | (08) 8204 2004   |
| GPO Box 2607                     | Facsimile:          | (08) 8124 4670   |
| Adelaide SA 5001                 | Freecall (country): | 1800 623 445   |
|                                  | Internet:           | <a href="http://www.epa.sa.gov.au">www.epa.sa.gov.au</a>         |
|                                  | Email:              | <a href="mailto:epainfo@epa.sa.gov.au">epainfo@epa.sa.gov.au</a> |

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