

# Environmental management on the *Urban fringe*



## Environmental assessment



Department of  
Environment and  
Conservation (NSW)

*Audit guidebook and protocol for rural  
businesses and rural residential properties*

## Acknowledgements

This publication is based on material prepared for the Department of Environment and Conservation (NSW) by Hornsby Shire Council. Funding was provided by the NSW Government through its Stormwater Trust under the Urban Stormwater Education Program.

A large number of people have assisted in the production of this guide. In particular the members of the Steering Committee from the NSW Department of Primary Industries, Department of Infrastructure, Planning and Natural Resources, Department of Environment and Conservation (NSW), Camden Council and Hornsby Shire Council. Comment was also received from Baulkham Hills Shire Council, Gloucester Council, Parry Shire Council, Singleton Shire Council and Warringah Shire Council.

## Disclaimer

The State of NSW, Department of Environment and Conservation (NSW) and the Environment Protection Authority has made all reasonable efforts to ensure that the contents of this document are factual and free of error. However the Department of Environment and Conservation (NSW) and the Environment Protection Authority shall not be liable for any damage or loss which may occur in relation to any person taking action or not on the basis of this document.

## Published by

Department of Environment and Conservation (NSW)  
59-61 Goulburn Street  
Sydney NSW 2000  
PO Box A290, Sydney South NSW 1232

Phone: (02) 9995 5000 (switchboard)  
Phone: 131 555 (information and publications requests)  
Fax: (02) 9995 5999  
TTY: (02) 9211 4723  
Email: [info@environment.nsw.gov.au](mailto:info@environment.nsw.gov.au)  
Website: [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)

ISBN 1 74137 090 6  
DEC 2004/107  
November 2004

Printed on recycled paper

<b>Role of environmental assessments</b>	<b>2</b>
<b>Background</b>	<b>2</b>
<b>Whole of property assessment</b>	<b>3</b>
Aims and objectives	3
<b>The assessment process</b>	<b>3</b>
<b>Supporting information</b>	<b>4</b>
<b>The follow up</b>	<b>6</b>
<b>Interpreter services</b>	<b>6</b>
<b>Grant funding</b>	<b>7</b>
<b>Environmental assessment guide and protocol</b>	<b>8</b>
Property details	9
Environmental management	9
Environmental training	10
Water quality management	11
Onsite sewage management	11
Management of sediment, erosion and litter	11
Drainage management – stormwater/irrigation	12
Nutrient management	13
Water storage dams	13
Chemical and spill management	14
Waste management	15
Air quality management	16
Noise management	16
Site contamination	17
Site sketch	18
<b>Standard conditions/recommendations</b>	<b>19</b>
<b>References</b>	<b>25</b>
<b>Appendices</b>	
Appendix 1 Interpreter services	26
Appendix 2 Horticulture	27
Appendix 3 Poultry farms	28
Appendix 4 Viticulture	29
Appendix 5 Horse properties	31
Appendix 6 Hobby farms	33
Appendix 7 Nurseries	34

# Role of environmental assessments

The purpose of undertaking an environmental assessment in a rural area is to gauge the environmental performance of an individual residential property or business operation, and to use the information obtained from those reviews to:

- educate rural landholders and business operators about their environmental responsibilities;
- educate rural landholders and business operators about the catchment in which they live;
- inform rural landholders and business operators of how their actions could be detrimental to the environment; and
- suggest methods to improve their environmental performance, and reduce further damage or risk to the environment.

This document provides guidance to council officers and environmental professionals within NSW in conducting environmental assessments on rural properties and/or business operations. It also

provides information on what a council officer should look for when carrying out an assessment. This document does not deal with the regulatory powers available to council officers or with the issues involved in establishing and running an environmental assessment program for urban rural fringe properties. These issues have been dealt with in greater detail in the following courses for council officers offered by the Department of Environment and Conservation (NSW):

- Protection of the Environment: Authorised Officers Course; and
- Environmental Assessment and Cleaner Production Training for Local Government.

The Department of Environment and Conservation (NSW) should be contacted for further information regarding training providers and the availability of the above courses. As well as the above courses, there are a range of publications available from the Department of Environment and Conservation (NSW) (phone 131555 or [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)), which may be of assistance.

## Background

Land use on the urban rural fringe is very diverse and continues to change over time. Similarly, the range in lot sizes within rural areas is diverse. Land use activities range from poultry and intensive horticulture to rural residential properties and hobby farms. Each property has its own unique features and each owner/operator approaches production and land management in their own distinct way. There is no one 'recipe' or standard approach to production and land management for a particular enterprise or piece of land. The following audit guidebook and protocol aims to assist officers in their approach.

One of the major issues of concern in rural areas is the potential for land use conflicts between



*Land modification undertaken on a rural property.*

agricultural production and rural living purposes. This problem has been generated by the sporadic development of rural living subdivisions in close proximity to agricultural operations.



# Whole of property assessment

Whole of property environmental assessment of rural properties takes into account practices employed and their impact on the surrounding environment. While the environmental assessment guide and protocol primarily focus on stormwater management issues, other environmental issues are also addressed. Holistic property assessment allows councils to respond to all environmental issues, fulfilling their obligation under the *Protection of the Environment Operations Act 1997*. It simultaneously offers council officers the opportunity to promote sustainable land management practices.

## Aims and objectives

This assessment guide is aimed at assisting council officers who are planning to introduce an environmental assessment program for properties on the urban rural fringe, or are intending to extend their current program to include both rural business operations and rural lifestyle properties. It can also be used as a tool for assessment when dealing with neighbourhood complaints.

The objectives of this guide include:

- to improve the capacity of local council officers to deal with environmental issues on the urban rural fringe; and
- to provide a resource for councils that are considering introducing an environmental assessment program on the urban rural fringe.



*Landcare display at community workshop – Involving other agencies helps to build partnerships.*

# The assessment process

Generally there are three different approaches that can be undertaken when conducting environmental reviews. These are known as:

- **Targeted assessments.** These focus on a specific industry type such as dairy or winery;
- **Catchment based assessments.** This involves reviewing all businesses and large scale rural residential operations within a specific sub-catchment. Sub-catchment boundaries are based on Catchment boundaries; and
- **Geographical based assessments.** These use boundaries such as roads, rail lines, creeks, rivers and other features to define a specific assessment area.

All three types have their own advantages and disadvantages but the typical process is as follows:

1. Identification of premises using geographic information systems (GIS), a council database or conducting a drive around the rural area;
2. Establish an industry database outlining the name of owner, address, and type of operation;
3. Research available best practice for various industry types and ensure that the assessment officer is up-to-date with legislative requirements;
4. Review Development Approvals and compliance history of each premise;

5. Send introductory letter to businesses or rural residential property owner/s;
6. Prepare assessment forms (see attached assessment protocol);
7. Assessment officer makes personal visits or phone calls to businesses to arrange environmental review;
8. Conduct environmental review using a standard review protocol (see attached assessment protocol);
9. Discuss preliminary findings at conclusion of environmental review with the owner/business manager of the premises;
10. Send out Environmental Review Report outlining findings and required actions to comply with environmental legislation or best practice;
11. Provide owner with Action Plan with agreed time frames;
12. Issue environmental information pack to assist achieving compliance with Action Plan or industry best practice; and
13. Re-inspect premises after set interval to determine if required work has been completed.

## Supporting information

The following legislation and reforms apply to agricultural environmental matters in NSW. For further information contact the relevant government department responsible for administering a specific Act or visit the Australasian Legal Information Institute website [www.austlii.edu.au](http://www.austlii.edu.au).

Legislation	Description
<i>Contaminated Land Management Act 1997</i>	Administered by the Department of Environment and Conservation (NSW), (DEC), ( <a href="http://www.environment.nsw.gov.au">www.environment.nsw.gov.au</a> ) for matters relating to seriously contaminated land sites in NSW that are presenting significant risk of harm to human health or the environment.
<i>Environmental Planning and Assessment Act 1979</i>	Administered by Department of Planning Infrastructure & Natural Resources (DIPNR) ( <a href="http://www.dipnr.nsw.gov.au">www.dipnr.nsw.gov.au</a> ) and local government for matters relating to development of land and environmental management through development. Also includes State Environmental Planning Policies, Regional Environmental Planning Policies and Local Environmental Planning Policies.
<i>Environmentally Hazardous Chemicals Act 1985</i>	Commonwealth legislation administered by DEC ( <a href="http://www.environment.nsw.gov.au">www.environment.nsw.gov.au</a> ) for matters relating to assessment, registration and use of chemicals. Includes chemical control order application that prohibits certain activities relating to storage, processing, transporting and disposal of chemical waste.
<i>Local Government Act 1993</i>	Administered by local government for all matters deemed to be the responsibility of councils, including onsite sewage management.

<i>Noxious Weeds Act 1993</i>	Administered by NSW Department of Primary Industries ( <a href="http://www.agric.nsw.gov.au">www.agric.nsw.gov.au</a> ), local government, and DIPNR ( <a href="http://www.dipnr.nsw.gov.au">www.dipnr.nsw.gov.au</a> ) for matters relating to identifying and controlling noxious weeds in each NSW local government area. Weeds are categorised according to associated problems, with the land occupier being responsible for control of weeds or prevention of their spread. Section 18 weed control notices require action within 24 hours.
<i>Pesticides Act 1999</i>	Administered by the DEC ( <a href="http://www.environment.nsw.gov.au">www.environment.nsw.gov.au</a> ) for matters relating to storage, use and disposal of pesticides, to prevent harm to the environment or to human health. Includes strict record keeping procedures.
<i>Protection of the Environment Operations Act 1997</i>	Administered by DEC ( <a href="http://www.environment.nsw.gov.au">www.environment.nsw.gov.au</a> ) and local government for matters relating to environmental offences such as pollution of water and air including odour and noise pollution. Includes penalties for offences. Requires licence for application of chemicals to water bodies.
<i>Soil Conservation Act 1938</i>	Administered by DIPNR ( <a href="http://www.dipnr.nsw.gov.au">www.dipnr.nsw.gov.au</a> ) for matters relating to soil conservation and erosion prevention. Notice can be issued if a landholder has done or is likely to do, something that will lead to land degradation, and if consent is required to clear protected land.

## Australian Standards

AS/NZS ISO 14010:1996	Guidelines for Environmental Auditing – General Principles. Published by Standards Australia.
AS/NZS ISO 14011:1996	Guidelines for Environmental Auditing – Audit Procedures – Auditing of Environmental Management Systems. Published by Standards Australia.
AS/NZS1547:2000	On-Site Domestic Wastewater Management. Published by Standards Australia.
AS2867-1986	Farm structures – General requirements for structural design
Other standards	A Standard is a published document that sets out specifications and procedures. Standards are designed to ensure that a material, product, method or service is fit for its purpose and consistently perform the way it was intended. Standards information is available from <a href="http://www.standards.com.au">www.standards.com.au</a>

## Fact Sheets

NSW Department of Primary Industries	The Agfact and Agnote series covers a wide range of agricultural topics. Subjects include growing various crops, pests, diseases, nutrition, farm management skills, etc. Most are listed in a publications and video list issued quarterly by NSW Department of Primary Industries. For a copy of the list, contact your local NSW Department of Primary Industries office or Head Office Publications Section on 1800 028 374, (02) 6391 3994 or <a href="http://www.agric.nsw.gov.au">www.agric.nsw.gov.au</a>
--------------------------------------	---

# The follow up

Once the environmental assessment has been completed, all information gathered during the site inspection should be evaluated and assessed to ensure that the operation complies with current environmental legislation.

A detailed report should be prepared for the owner of the premise, and should include:

- details of the assessment of the site;
- recommended actions to remedy non-compliance or to improve the environmental performance of the premise (standard conditions and recommendations are outlined at the end of this document); and
- the time frame for each recommended action.

Ensure that the recommendations of the report are feasible and can be completed within the specified time frame.



*Rural residents learning about native vegetation and mapping.*

*It may be advantageous to invite the owner or manager of the premise to comment on the recommendations and negotiate time frames.*

# Interpreter services

With the increasing multicultural nature of Australia, the need may arise for a council officer to use an interpreter service whilst carrying out environmental assessments. Family and friends of the person may be able to provide translation. However if this is not possible the Australian Government, through the Department of Immigration and Multicultural and Indigenous Affairs ([www.immi.gov.au](http://www.immi.gov.au)), provides a translating and interpreting service to enable people who do not speak English to communicate with

English speakers. This service is available 24 hours a day, 7 days a week, and is accessible from anywhere in Australia for the cost of a local call. They can be contacted on **13 14 50**.

As an alternative, this information can be published on the back of council correspondence. Hornsby Shire Council provides information in 14 different languages on the back of its letterhead guiding residents to a free interpreter service. A copy of this information is included in Appendix 1.



Whilst carrying out an environmental assessment, local councils are in a unique position to relay information about available grant funding to NSW residents. Various funding opportunities become available each year through government agencies. A list can be viewed at [www.communitybuilders.nsw.gov.au/](http://www.communitybuilders.nsw.gov.au/) Community Access to Natural Resources Information can be found at [www.canri.nsw.gov.au](http://www.canri.nsw.gov.au) or through **Easy Grants Information Service**. Easy Grants Information Service is a yearly subscription that includes a list each month on the grants and opportunities available. Subscription is available for an annual fee.

Phone: (03) 9419 1833 or

Email: [strategicaustralia@bigpond.com](mailto:strategicaustralia@bigpond.com).

The information provided is a guide only and suitable advice should be obtained from the relevant organisation prior to submitting any application for assistance.

# Environmental assessment guide and protocol

Hornsby Shire Council has developed this Assessment Guide and Protocol as part of the Environmental Management on the Urban Fringe Program. Both the Guide and the Protocol include information relating to environmental assessments of rural properties, guide notes, standard recommended and required actions, and environmental questions focusing primarily on stormwater.

The Protocol is designed to be customised to cater for the needs of each local government area. The protocol can be used for both business operations and lifestyle properties.

## Instructions for the reviewer

This document provides a model for councils to use in formulating an environmental review specific to their local government area. In many ways it represents a somewhat idealistic position and many readers may at first feel daunted by its content and implications. Please do not be deterred. The guide and protocol should be modified to suit each local government area. Hints and reminders have been included to help each assessing officer select the parts relevant to their particular circumstance and to allow for the modification of the contents to suit each council.

The aim of the model assessment guide and protocol is to give each council officer a framework for developing his or her own assessment process. This model does not explain how to solve environmental problems. Instead it provides an outline of relevant environmental issues for assessment, and instructs officers on ways to ensure that all of these issues are addressed. Examples of assessment questions have been included in this document. It is important to remember that the environmental review involves a holistic assessment of all activities on the property including the inputs, the business processes and the final outputs.

Supplementary guide notes and conditions have been included to aid in the use of the Protocol. The issues covered include:

- Compliance with statutory requirements;
- Potential for contamination of the site;
- Possession of appropriate licences and permits etc;
- Areas of environmental risk;
- Assessment of appropriate management structures to ensure an environmentally responsible operation; and
- Industry best practices.

# Environmental review checklist

## Property details

File No: \_\_\_\_\_ Date of inspection: \_\_\_\_\_

Council Officer: \_\_\_\_\_

Property Address: \_\_\_\_\_

Suburb: \_\_\_\_\_ Postcode: \_\_\_\_\_

Owner/Operator: \_\_\_\_\_

Contact Person and Position: \_\_\_\_\_

Business Telephone No: \_\_\_\_\_ Fax: \_\_\_\_\_

Emergency After Hours No: \_\_\_\_\_

Email: \_\_\_\_\_

Size of property: \_\_\_\_\_ Water source: \_\_\_\_\_

Principal activity: \_\_\_\_\_

Area of land used for principal activity: \_\_\_\_\_ Years of operation: \_\_\_\_\_

Slope (%): \_\_\_\_\_ Nearest waterway: \_\_\_\_\_

Natural assets: \_\_\_\_\_

## Environmental management

**Guide Note:** It is essential that the assessor verify that the appropriate licences are held by the property owner to cover the operations being assessed, that the licence is current, and that conditions of operation under the licence are being complied with.

Does the business/operation have any of the following in place?

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| a) Current Development Application Consent | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) Property Management Plan                | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) Environmental Management System         | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

If yes, can a copy be obtained during the inspection?: \_\_\_\_\_

If no, are any of the above:

- |   |                              |                             |
|---|------------------------------|-----------------------------|
| a) Recommended by the Industry?             | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) Required by law?                         | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) Likely to be of benefit to the business? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Details: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Does the business hold licences with any of the following?

- a) Department of Environment and Conservation  
(air, water, noise, waste) ☐ N/A ☐ Yes ☐ No
- b) Department of Infrastructure Planning and Natural Resources  
(DIPNR) (irrigation licence, water licence) ☐ N/A ☐ Yes ☐ No
- c) Water Authority (i.e. Trade Waste) ☐ N/A ☐ Yes ☐ No
- d) Work Cover Authority ☐ N/A ☐ Yes ☐ No
- e) Other: \_\_\_\_\_

### If no, are any of these licences required by legislation for activities conducted on site?

- a) DEC (air, water, noise, waste) ☐ Yes ☐ No
- b) DIPNR (irrigation licence, water licence) ☐ Yes ☐ No
- c) Water Authority (i.e. Trade Waste) ☐ Yes ☐ No
- d) Work Cover Authority ☐ Yes ☐ No
- e) Other: \_\_\_\_\_

## Environmental training

**Guide Note:** With the changing regulatory environment and the introduction of industry quality assurance schemes, the importance of environmental training is now being recognised. The Department of Environment & Conservation (NSW) have introduced compulsory training of all pesticide users as a requirement of the Pesticide Act 1999, and further environmental training may be required in the future. To assist in the delivery of such environmental training NSW Department of Primary Industries, TAFE NSW and ChemCert Ltd have developed farm chemical training programs. The programs bring up-to-date chemical training to industry and the community. For further information regarding training visit NSW Department of Primary Industries at [www.agric.nsw.gov.au](http://www.agric.nsw.gov.au) or TAFE NSW at [www.lg.tafensw.edu.au/smarttrain](http://www.lg.tafensw.edu.au/smarttrain) or the Department of Environment & Conservation (NSW) at [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au).

### Does the business/property owner provide training to any employees in the following areas?

- a) Pollution prevention ☐ N/A ☐ Yes ☐ No
- b) Spills control ☐ N/A ☐ Yes ☐ No
- c) Handling dangerous materials/chemicals ☐ N/A ☐ Yes ☐ No
- d) Storing dangerous materials/chemicals ☐ N/A ☐ Yes ☐ No
- e) Proper disposal of waste materials/chemicals ☐ N/A ☐ Yes ☐ No

### Is the owner of the property, and/or all relevant employees correctly licensed to use chemicals?

☐ Yes ☐ No

### Is the owner of the property or relevant employees aware of the training courses, accredited bodies and funding assistance?

☐ Yes ☐ No

## Water quality management

**Guide Note:** The manner in which the business/property manages any discharges to waters can affect local and regional water quality. Any form of development may alter the natural state of the land and may have some effect on the water runoff from the area. Water quality within watercourses and rivers will be affected by a number of factors including effluent disposal, stormwater drainage, soil degradation and silt runoff.

### Onsite Sewage Management

Does the business discharge to an onsite sewage management system? ☐ Yes ☐ No

Is the system operating satisfactorily? ☐ Yes ☐ No

If not, what are the most likely causes? e.g. system overloaded, disposal area in high traffic zone, etc: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Management of Sediment, Erosion, & Litter

**Guide Note:** Excessive clearing of land can create a high risk of soil degradation particularly in sloping areas. Sedimentation produces muddy streams and silts up dams and watercourses with nutrient rich material. Litter, in particular polystyrene, plastics, potting mix and mulches, can clog pumps and drainage lines. This section should involve a visual observation of the area by the reviewer.

Is there visual evidence of erosion hazards on site?  
e.g., steep or unstable slopes, cleared drainage lines, etc ☐ Yes ☐ No

Does the business/property have a plan to control runoff, erosion, sediment and litter on site? ☐ Yes ☐ No

Is there visual evidence of natural features such as drainage lines, water bodies and existing vegetation being retained around the property? ☐ Yes ☐ No

Is water diverted from the property held in storage dams for later use in irrigation? ☐ Yes ☐ No

Is stockpiled material:

- |   |                              |                              |                             |
|---|------------------------------|------------------------------|-----------------------------|
| a. Located away from drainage lines?    | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b. Minimal in number and size?          | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c. Built with a slope greater than 2:1? | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d. Stored in an appropriate area?       | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| e. Held on a hardened surface?          | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| f. Appropriately sited?                 | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| g. Covered?                             | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No |



Are internal pathways and roadways stabilised to control erosion? ☐ Yes ☐ No

Is vegetation or other means used to cover bare soil at all times? ☐ Yes ☐ No

Does the site have established vegetative or stabilised buffer zones to creeks and waterways? ☐ Yes ☐ No

If yes provide details: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Drainage management – stormwater/irrigation

**Guide Note:** Irrigation on rural properties is very diverse. Most fruit, vegetable, dairy, wine, cotton and rice productions depend on irrigation practices. Irrigation has the potential to impact on land and water quality because of the intensive use of water, nutrients, pesticides and machinery.

Stormwater runoff and tail water from irrigation are likely to contain pollutants from chemicals which if discharged to the environment could pollute waters. All irrigation tail water should be collected and recycled where possible. If capture and reuse of stormwater is not possible, the onus is on the irrigator to ensure that stormwater quality is acceptable before it is released into the environment.

Irrigation on properties should be designed, constructed and operated to ensure that surface waters beyond the property boundaries do not become polluted. Council has the responsibility of enforcing the Protection of the Environment Operations Act 1997. Section 120 of that Act makes it an offence to pollute waters unless a person holds a licence and is operating in compliance with the conditions of that licence. Pollutants under the Act include soil, mud, earth and clay, fertilisers, pesticides, nutrients, and any chemical.

### Where is stormwater from the property diverted to?

a) Open channel or watercourse? ☐ Yes ☐ No

Leading to? i.e. creek, river, tributary: \_\_\_\_\_

b) Dam? ☐ Yes ☐ No

c) Bushland? ☐ Yes ☐ No

d) Pasture? ☐ Yes ☐ No

e) Storage tanks/absorption trenches? ☐ Yes ☐ No

f) Artificial wetland? ☐ Yes ☐ No

### Which if any of these practices need to be improved to prevent environmental impacts?

\_\_\_\_\_

\_\_\_\_\_

Are buffer zones established to filter stormwater/surface runoff before it enters any of the above? ☐ Yes ☐ No

If yes, provide details: \_\_\_\_\_

Is surface water captured and reused on the site? ☐ Yes ☐ No

## Nutrient management

**Guide Notes:** Land profitability and sustainability are directly linked to the fertility of the soil. Nutrient levels and balances between nutrients must be maintained. Keeping nutrients on the property ensures that agricultural lands remain viable, as it is quite clear that nutrient management is a cost effective land management tool.

Is the quality of runoff leaving the site monitored for nutrient levels? ☐ Yes ☐ No

Is soil analysis conducted on site? ☐ Yes ☐ No

If yes to both, are the quantities of water, nutrients and chemicals currently being used on site altered according to results? ☐ Yes ☐ No

## Water storage dams

**Guide Notes:** The Farm Dams Policy (DIPNR [www.dipnr.nsw.gov.au](http://www.dipnr.nsw.gov.au)) gives landholders the right to capture and use for any purpose 10% of the average yearly rainfall runoff from their property. This is known as the harvestable right and is intended to satisfy essential rural property needs such as stock watering, house, gardens. It may also be used for any other purpose including irrigation. The Farm Dams Assessment Guide (DIPNR) should be consulted for further detail pertaining to this issue.

Water quality in any dam may be affected by:

- Salinity resulting from excessive tree removal and rising water tables;
- High nutrient loads in the water resulting in excessive algal growth;
- Muddiness and silting resulting from soil erosion following disturbance in the catchment; or
- Fouling by stock and other animals.

Are water storage dams constructed on the site? ☐ Yes ☐ No

If yes, are these dams licensed? ☐ Yes ☐ No

Is the condition of the dams regularly monitored for:

a) Algal growth? ☐ Yes ☐ No

b) Exotic and noxious weed growth? ☐ Yes ☐ No

Are the dams fenced and stock access limited? ☐ Yes ☐ No

What alternative water supplies exist on site? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Chemical and spill management

**Guide Note:** The misuse of agricultural chemicals can result in considerable damage to human and animal health, including biota in waters. Over-spraying and spray drift can result in the transport of pesticides to water bodies, particularly drains and dams. Disposal of chemical containers is also a major environmental problem. The storage and handling of all chemicals should be in accordance with the label and the Material Safety Data Sheet for each container.

### What type of chemicals/fuels are used on this site?

- |                                   |                              |                             |
|-----------------------------------|------------------------------|-----------------------------|
| (a) Pesticides                    | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (b) Disinfectants (i.e. Chlorine) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (c) Petrol                        | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (d) Diesel                        | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (e) Oil                           | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (f) Other: _____                  |                              |                             |

### Does the business:

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| a) Have documented procedures to implement in the event of a spill?                      | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) Have access to a supply of appropriate spill control and clean up materials?          | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) Keep pesticide record sheets as required by legislation?                              | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| d) Keep Material Safety Data Sheets (MSDS) for all chemicals/fuels used at the facility? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

### Are all chemicals and fuel storage areas bunded or enclosed in a bunded lockable, ventilated storage shed?

☐ Yes ☐ No

If yes, provide details: \_\_\_\_\_

### Are chemicals stored and handled in accordance with regulatory requirements?

☐ Yes ☐ No

### Are all empty chemical containers triple rinsed before disposal?

☐ Yes ☐ No

What is the method used to dispose of chemical/fuel containers? \_\_\_\_\_

---

---

---

## Waste management

**Guide Note:** The effective management of liquid, gas and solid wastes from the property can allow the owner to minimise the generation of waste and to increase the amount of material recycled, recovered or reused. This in turn has the ability to save the owner money on disposal fees.

Does the operation generate any of the following waste? Tick the appropriate boxes.

	Generated	Method of disposal			Comments
	Yes	Reused	Recycled	Disposal	
Paper/Cardboard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Timber	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Metals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Batteries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Oils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Used Drums/Containers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Tyres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Organics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Polystyrene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Other – specify \_\_\_\_\_

Are wastes disposed of at a licensed waste management facility? ☐ Yes ☐ No

If yes, specify location/contractor: \_\_\_\_\_

Are wastes stored in a manner to prevent the escape of pollutants to the environment? ☐ Yes ☐ No

Is any waste disposed of on site? ☐ Yes ☐ No

If yes, provide details of material and location: \_\_\_\_\_

How are crop residues/carcasses disposed of? ☐ N/A

Is any waste composted? ☐ Yes ☐ No

If yes, is there evidence/likelihood of contamination of the surrounding area as a result of this composting? ☐ Yes ☐ No

Is any waste incinerated on site? ☐ Yes ☐ No

If yes, provide details: \_\_\_\_\_

## Air quality management

**Guide Note:** Dust, fumes, smoke, and odour can all cause air pollution and should be maintained effectively on site. Where a legitimate odour problem exists or arises the problem should be investigated bearing in mind commercial realities and councils responsibilities under section 126 of the Protection of the Environment Operations Act 1997.

Does the business generate any of the following:

- |                                |                              |                             |
|--------------------------------|------------------------------|-----------------------------|
| a) Smoke?                      | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) Dust Particles?             | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| c) Odours/Fumes/Vapours/Steam? | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Is there a need for air quality controls on the property? ☐ Yes ☐ No

Have neighbouring properties/businesses lodged complaints regarding fumes/odours from the property? ☐ Yes ☐ No

Is air pollution likely to be a problem on this property? ☐ Yes ☐ No

## Noise management

**Guide Note:** Some rural activities such as the operation of farm machinery, some intensive agricultural activities, use of trail bikes and the running of irrigation pumps and stand by generators can be noisy. Excessive noise can affect the surrounding amenity, be annoying and interfere with normal activities. It should be managed so that these impacts are avoided.

Does the business/operation conduct any activities between 10pm and 7am? ☐ Yes ☐ No

Is noise and/or vibration made by the business audible from outside the boundaries of the premises? ☐ Yes ☐ No

If yes, provide details: \_\_\_\_\_  
\_\_\_\_\_

Does the property make use of any of the following:

- |                   |                              |                             |
|-------------------|------------------------------|-----------------------------|
| a) Gas Scare Guns | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| b) Hail Cannons   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |



## Site contamination

**Guide Note:** Because most existing property contamination problems are a result of historic practices and activities, investigating past activities is essential. The main avenue for review of historic activities is through records, aerial photographs, maps, site inspections, the review of ownership records, and from personal interviews. The potential for contamination can be indicated through:

- Evidence of past and present hazardous or toxic substance usage and waste disposal practices;
- Signs of stressed vegetation;
- Observed property conditions or previous activities which could potentially result in soil or ground water contamination;
- Visible soil or water contamination;
- Presence of surface and subsurface storage tanks, drums, barrels, and other storage containers, either in use or abandoned;
- Waste generated onsite;
- Onsite sewage management systems in use or abandoned;
- Hazardous material handling practices, including pesticides, past and present;
- Electrical, refrigeration and hydraulic equipment that may contain PCBs; and
- Building material that may contain asbestos.

The NSW Environment Protection Authority (EPA)<sup>1</sup> booklet, 'Guidelines on Significant Risk of Harm from Contaminated Land and the Duty to Report' (1999) provides general advice on the assessment and management of reporting contamination of land. 'Orchard and Market Garden Contamination' (EPA, 1995) may also be used as a guide.

Is there any evidence of contamination on the site? ☐ Yes ☐ No

If yes, provide details: \_\_\_\_\_

\_\_\_\_\_

Has any contamination clean-up been conducted in the past, or is any planned to be undertaken in the future? ☐ N/A ☐ Yes ☐ No

Does the condition of the facility represent a hazard to the environment or human health and safety? ☐ Yes ☐ No

If yes, what type of remediation is warranted? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

<sup>1</sup> In September 2003 the EPA became part of the Department of Environment and Conservation (NSW).

## Site sketch

**Guide Note:** The site sketch should show as much information as possible. The sketch may include the property boundaries, location of all buildings and facilities, storm water drains sewer lines or onsite sewage management facilities, or underground storage tanks. It should also show the location of all licensed discharge points and any product that has the potential to cause environmental harm.



Further comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Guide Note:** Councils can tailor the standard conditions and recommendations below to suit the specific needs of their area. These standard conditions and recommendations are a guide only. The list is not intended to be, nor is it able to be, a substitute for intelligent consideration by diligent statutory planning staff or authorised environmental officers. Under no circumstances should any of these conditions be placed on a development application or Prevention Notice without consideration as to whether they apply to the specific premise or without independent legal advice.

## Environmental management programs

- Generate a farm management plan for the property identifying the aims and objectives for the property, assessing human resources, determining whole property design and layout and establishing financial plans.
- Involve employees from the property in the process of developing environmental management procedures.
- Develop a written environmental management program or property management plan for the business. The program should include but not be limited to such elements as water, soil, pesticide, fertiliser, solid waste, stormwater, land and weed management, run-off treatment and disposal, erosion and sediment controls, emergency spill response, noise and air emissions.
- Appoint a responsible person to coordinate the environment management program or property management plan. (For owner/operator premises, the owner of the premises may automatically take on this responsibility).



*Drainage on rural properties can often be a problem and can lead to erosion issues.*

## Legal and other requirements

- To ensure compliance with the *Protection of the Environment Operations Act 1997*, Council or The Department of Environment & Conservation (NSW) must be notified immediately on 131 555, should a pollution spill occur on the property.
- It is recommended that the operator have access to relevant legislation and standards relating to environmental protection and planning requirements. The Department of Environment and Conservation's (NSW) internet site is a good reference point ([www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)).
- Council's records indicate that no development approval has been given for (state type of development). Accordingly, Council's Planning Division is to be contacted on (insert council phone number) for a Development Application.

## Environmental training

- Include training on potential environmental hazards and the consequences of not complying with the requirements of environmental legislation as part of training at the facility.
- Be aware of the environmental aspects of the property. Identify the location of stormwater drains, how to clean up a spill, and what to do with leftover chemicals, pesticides and oil.



*Residents participating in grass identification at a community workshop*

- Undertake basic training on the property on the following aspects:
  - Potential environmental hazards;
  - Methods to prevent pollution and environmental damage;
  - Methods to control spills and releases;
  - Proper storage of hazardous materials;
  - Proper disposal of waste materials;
  - Consequences of not complying with the requirements of environmental legislation; and
  - Good waste management practices.
- The Department of Environment and Conservation (NSW) has introduced compulsory training of all pesticide users as a requirement of the *Pesticides Act 1999*. It is recommended that chemical training be undertaken by all persons using chemicals on the property. NSW Agriculture and TAFE NSW have developed a chemical training program called SMARTtrain to deal with chemical training to industry and the community.

## General procedures

- It is recommended that operating procedures at the facility be revised to include environmental protection requirements.
- Develop written procedures requiring that risk to the environment be evaluated prior to:
  - any site changes being implemented;
  - any operational changes being implemented;

- any changes in pollution control systems being implemented;
- start-up of any new equipment; and
- Restart of operations after a shutdown for any reason.

These procedures could be included under the environmental management program or property management plan. Environmental risks may relate to the location of plant beds, watering, fertiliser and pesticide application rates, drainage and the operation of all associated machinery and equipment.



*Land modification may be subject to a development application. Contact your local Council for further information.*

## Waste management

- Investigate the feasibility of maintaining a waste management program that promotes the reduction, reuse and recycling of all wastes generated.
- To accommodate efficient waste management at the facility, identify, quantify and characterise all wastes generated and separate them into reusable or recyclable categories.
- Label waste containers and put them in convenient areas to encourage their use.

- Ensure that all wastes disposed off-site are documented and transported by licensed waste transporters for disposal at licensed facilities.
- To ensure compliance with environmental legislation, ensure that all wastes, wastewater/sludge etc are stored in a manner that prevents the escape of pollutants to the environment.
- The burning of articles, such as plastics and rubber, tyres, coated wire, paint containers and residues, solvent containers and residues and treated timbers is prohibited under section 6 of the *Protection of the Environment Operations (Control of Burning) Regulations 2000*. As an alternative these materials should be recycled, reused or disposed of at an approved waste management facility.



*The way in which material is stock piled at nurseries should be checked during the environmental review. Material should be located in a position that reduces runoff and pollution from occurring. If possible material should be stored on a hard surface and covered.*

## Hazardous materials, oils and chemical management

- Develop and maintain an inventory of all hazardous materials and/or dangerous goods stored on the property. If no hazardous materials are kept then a document is to be provided stating that this is the case.
- Ensure that all hazardous materials and/or dangerous goods are stored and labelled in a secure area that is lockable, covered, ventilated, sealed and banded.
- All aboveground storages of hazardous materials, oils and chemicals are to be banded. The bund is to be made of an impervious material and should be roofed and large enough to hold the contents of the largest container plus 10%.
- Maintain a management plan for all aboveground, in ground and underground storages, that are used to store raw materials, products and/or wastes at the facility. This should include an inventory that establishes the age, construction, location and capacity of all storages, and ensure that all storages requiring to be licensed have current licences, are appropriately labelled, and are routinely tested and/or inspected.
- Remove all containers and drums of unwanted liquid materials and oil stored around the facility. This is to be undertaken by a licensed waste contractor for treatment and disposal at a licensed waste facility.
- Ensure that all solvents are stored away from heat, naked flames, direct sunlight, oil and other flammable liquids.
- Ensure that all liquid materials such as solvents, oils, and chemicals are stored away from stormwater drains or watercourses.
- Inspect storage containers regularly and replace them if they are rusted, damaged or likely to leak.
- Remove all empty drums or containers stored around the property to an approved waste disposal depot.
- Any underground storage tank on the property is to be tested and/or inspected to ensure that it does not leak and is not contaminating the surrounding soil.



- To ensure correct handling of hazardous materials, Material Safety Data Sheets (MSDS) must be held on the property for all hazardous materials. These can be obtained free of charge from the supplier or downloaded from the web site [www.msds.com.au](http://www.msds.com.au).
- Develop and maintain a record sheet of pesticide usage as required by the *Pesticides Amendment (Records) Regulation 2001*. This is a new regulation under the Pesticides Act 1999 and requires all commercial users of pesticides to keep records of their pesticides usage.
- Undertake training in pesticides management. Accredited courses include ChemCert and SMARTTrain. More information on training and course accreditation may be obtained from the Department of Environment and Conservation (NSW) ph 131 555 or visit the web site [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au).
- Construct solid impervious bunding around the above ground fuel storage tank.

## Spill prevention and control

- In order to ensure spill prevention and control, a ready supply of spill control and clean-up absorbent materials are to be maintained at all times on the property.
- If a spill occurs at the facility stop the source of the spill immediately, control its flow and stop it from entering any stormwater drains or watercourses.

## Water quality management

- To prevent pollution of the stormwater system, all stormwater drains and open watercourses located on the property are to be cleaned of all sediments, litter and any other materials.
- Maintain an inventory of all controlled and uncontrolled discharges from the facility including discharges to the sewer, onsite sewage management facility and stormwater. This may be in the form of a site plan showing discharge points, or any other document that describes the location of these discharges.



*To overcome erosion in drainage lines on farming properties rehabilitation works may be required.*

- Carry out a review of the property to ensure that no activities or operations on the property have the potential to pollute the stormwater system.
- Provide an ongoing effort to continually improve the quality of Stormwater runoff being discharged from the property to the environment.
- Undertake works to prevent surface run-off containing potential nutrients from entering natural waters. Works may consist of wetland/buffer area/absorption trench systems. Note – You are required to seek approval and submit details to Council of proposed systems before any works commence.
- Discourage stock from congregating near the dam and from damaging the dam edges and muddying the water by fencing dams. Drinking water for stock can be piped or gravity fed to troughs.
- Limit stock access to one or two strategic places along the dam edge and fence the remainder.
- Properly maintain irrigation systems, including repairing all broken/defective lines, emitters or sprinkler heads; adjust sprinklers for proper coverage; adjust irrigation times and durations according to season.

## Air quality management

- Consider carrying out a review of the property to ensure that no activities or operations at the facility have the potential to generate emissions to the atmosphere that may impact on neighbouring residents.
- Ensure that weather conditions are considered when applying pesticides so that neighbouring properties, waterways, stormwater drainage lines and bushland are not affected.
- Mulching and composting of waste vegetation is recommended as an alternative to burning. Strict compliance with the *Protection of the Environment Operations (Control of Burning) Regulation 2000* must be observed at all times should burning be proposed on the property.
- Control dust generation so that particles do not move off-site. Dust may contain hazardous materials and contaminate air, soil and waters.
- Seal, turf or cover unsealed sites with a dust suppressant such as compacted road base or aggregate to minimise airborne dust.
- Use quality bedding materials, which absorb moisture and avoid caking (e.g. wood shavings, rice hulls, straw).
- Maintain nozzles and correct pressure in drinker and fogger lines. Adjust height and maintain drinker and fogger lines to prevent spillage.
- Remove patches of wet or caked litter from sheds immediately. Replace it with fresh litter, and take preventative action against the cause of the wet or caked litter.
- Consider the use of odour neutralising agents.
- Consider changing the bedding after each batch to reduce odour.
- Open the sheds gradually in the morning to avoid expulsion of a 'puff' of odorous air which has generated in the sheds overnight.
- Avoid applying manure on weekends, public holidays, and when the prevailing wind direction is towards neighbours or public roads.

## Noise and vibration management

- In situations where noise from a facility is causing a community concern, measures are to be implemented to attenuate or control the noise source.
- Reduce machinery noise by shielding, enclosing, muffling and maintaining equipment. House machines on rubber, and surround them with solid brick walls.
- Consider reducing the offensive noise of compressors by enclosing them with a material that will muffle sound, or placing them in a back room and keeping the door shut. Another measure is to fit silencers on the inlet and exhaust, and maintain them regularly.
- Consider avoiding the use of extension telephone bells and public address systems.
- Consider limiting vehicle movements to standard daytime working hours.
- Gas scare guns should not be operated within 200 (\*) metres of any dwelling  
\* This distance may be varied considering local topography, which would affect noise propagation.
- Scare guns should not be used in a building, structure or operated in any location that accentuates the noise. Devices may be used to direct the noise of the scare guns in a controlled manner.

## Land management

- Remove all unwanted materials for recycling or disposal to an approved waste management facility on a regular basis.
- In order to minimise harm to the environment or human health and safety the site is to be sampled by a suitably qualified/experienced consultant in accordance with the *NSW EPA Guidelines for Consultants Reporting on Contaminated Sites (1997)*. This will take the form of a preliminary sampling and analysis program. Each soil sample is to be assessed

to determine if it is carrying impurities and contaminants including: heavy metals (Arsenic, Cadmium, Copper, Mercury, Lead and Zinc); Polycyclic Aromatic Hydrocarbons, or other recognised contaminants.

- Sampling is to be carried out in accordance with the EPA Sampling Design Guidelines for Contaminated Sites (1995).
- To ensure effective wastewater treatment, organise for a contractor to regularly maintain the oil/water separator.
- Plant indigenous vegetation on unused or cleared areas of the property so as to maintain native flora and fauna corridors. A list of indigenous vegetation species is available from Council by phoning (Insert council phone number).
- Remove all noxious weeds and other weeds growing on the property. Maintain a regular

weed monitoring and removal program.

Council may be contacted on (insert council phone number) for assistance on methods of weed removal and information on replanting with native species.

- Plant quick growing species around sheds and the boundary of the property to enhance the environmental amenity.



*Nursery staff helping a local resident select plants for their rural property.*

# References

Australian Standards, *The Storage and Handling of Flammable and Combustible Liquids AS 1940-1993*

Brisbane City Council (2000) *Pollution Solutions Poultry Farms*, Brisbane City Council, Brisbane

Camden Council, *Environmental Assessment Sheet*, Camden Council, Camden.

Centre for Professional Development (2001) *Environmental Audit Guidebook*, Thomas Legal & Regulatory Limited, Australia

Department of Natural Resources and Environment (2000) *Draft Code of Practice Piggeries*, Department of Natural Resources and Environment, Victoria

Department of Natural Resources and Environment (2001) *Victorian Code for Broiler Farms*, Department of Natural Resources and Environment, Victoria

NSW Environment Protection Authority – *Manual for Authorised Officers* (1995)  
[www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)

Graham Brown and Associates (1999) *Environmental Review Manual*, Hornsby Shire Council, Hornsby.

*Local Government Act 1993*

Marrickville Council (2000) *Environmental Assessment of Industry – Council start up kit*, Marrickville Council.

Nursery Industry Association of Australia (1997) *Nursery Industry Water Management Best Practice Guidelines*, Nursery Industry Association, Sydney NSW.

*Pesticides Act 1999*

*Protection of the Environment Operations Act 1997*

WorkCover Authority of NSW (1998) *Code of Practice for the Safe Use and Storage of Chemicals in Agriculture* WorkCover Authority of NSW, Sydney NSW.



# Appendix 1 Interpreter services

If you do not understand this letter, please telephone 131 450 for a Free Interpreter.  
Ask them to contact Hornsby Shire Council on 9847 6666 and Council will try to help you.  
Council's Office hours are 8.30am – 5.00pm, Monday to Friday.

	<p>If you do not understand this letter, please telephone 131 450 for a Free Interpreter. Ask them to contact Hornsby Shire Council on 9847 6666 and Council will try to help you. Council's Office hours are 8.30 am – 5.00 pm, Monday to Friday.</p>	
ARABIC	<p>ان لم تفهم هذه الرسالة فالرجاء الاتصال مع الهاتف رقم ١٣١ ٤٥٠ للحصول على مترجم مجاني. اطلب منهم الاتصال مع بلدية هورنسبي على الرقم ٩٨٤٧ ٦٦٦٦ ومستحاول البلدية مساعدتك. ساعات الدوام في البلدية ما بين ٨/٣ صباحا حتى ٥:٠٠ بعد الظهر.</p>	
CHINESE	<p>如果你不明白這封信的內容，請致電131450便可獲得免費傳譯員服務。你可要求傳譯員致電98476666聯絡Hornsby郡市議會。本市議會將會盡量幫你。本市議會的辦公時間為星期一至星期五早上8時30分至下午5時。</p>	
FARSI	<p>اگر مطالب این نامه را درک نمی کنید جهت استفاده از مترجم رایگان به شماره ١٣١٤٥٠ تلفن بزنید. از مترجم بخواهید تا با انجمن شهرداری منطقه هورنسبی با شماره تلفن ٩٨٤٧ ٦٦٦٦ تماس بگیرد. این انجمن سعی خواهد کرد که در درک مطالب نامه به شما کمک کند ساعات کار انجمن شهرداری ٨/٣ صبح تا ٥ بعد از ظهر می باشد</p>	
GREEK	<p>Αν δεν καταλαβαίνετε την επιστολή αυτή, παρακαλώ τηλεφωνήστε στο 131 450 για δωρεάν διερμηνεία. Ζητήστε του να επικοινωνήσει με την Δημαρχία του Χόρνσμπι (Hornsby) στο τηλ. 9847 6666 και η Δημαρχία θα προσπαθήσει να σας βοηθήσει. Τα γραφεία εργάζονται 8,30 πμ - 5 μμ, Δευτέρα-Παρασκευή.</p>	
HINDI	<p>यदि आपको यह पत्र समझ नहीं आता तो कृपया एक निः शुल्क दुभाषिये के लिए १३१ ४५० पर फोन करें। उनसे कहें कि वे ९८४७६६६६ पर होर्न्सबी शाइर कांसिल को संपर्क करें तथा कांसिल आपकी सहायता करने का प्रयत्न करेगी। कांसिल के कार्यालय के समय, सोमवार से शुक्रवार प्रातः ८.३० - शाम ५.०० है।</p>	
INDONESIAN	<p>Apabila anda tidak memahami (mengerti) isi surat ini, harap menilpon 131 450 untuk mendapatkan layanan juru bahasa gratis. Harap meminta mereka untuk menghubungi Dewan Kotapraja Hornsby (Hornsby Shire Council) pada nomor telepon 9847 6666 dan Dewan akan mencoba untuk menolong anda. Jam Kantor Dewan adalah jam 8.30 pagi sampai jam 5 sore, hari Senin sampai dengan Jumat.</p>	
ITALIAN	<p>Se non comprendete la presente lettera, telefonate al numero 131 450 per servirvi gratis di un interprete. Chiedete a quest'ultimo di chiamare l'Hornsby Shire Council al numero 9847 6666 e il Comune cercherà di rispondere ai vostri quesiti. L'orario d'ufficio del Comune è 8.30-17 dal lunedì al venerdì.</p>	
KOREAN	<p>만일 이 편지의 내용을 이해하지 못하시면 131 450로 전화하시면 무료통역을 요청하실수요, 통역사에게 9847 6666으로 전화하여 콘서트 관공을 접목하도록 요청하시면 콘서트에는 당신을 도울 것입니다. 콘서트의 근무시간은 오전 8.30부터 오후 5.00, 월요일부터 금요일까지입니다.</p>	
POLISH	<p>Jeśli nie rozumiesz treści tego pisma, zadzwoń pod numer 131 450 po bezpłatną pomoc tłumacza. Poproś tłumacza o skontaktowanie się z Radą Okręgową w Hornsby (Hornsby Shire Council) pod numerem 9847 6666, która dołoży starań, żeby ci pomóc. Rada urządza w godzinach 8.30-17.00 od poniedziałku do piątku.</p>	
RUSSIAN	<p>Если вы не можете понять содержание этого письма, позвоните, пожалуйста, по телефону 131 450 и попросите позвать к телефону бесплатного переводчика. Попросите переводчика позвонить по телефону 9847 6666 в Hornsby Shire Council, и Council постарается вам помочь. Часы работы в Council – с 8.30 утра до 5.00 часов вечера с понедельника до пятницы.</p>	
SINHALESE	<p>මෙම ලිපිය ඔබට නොදේශිමි. අංක 131450 අමතා, නොමිලේ සහා පරිවර්තකයෙකු අවශ්‍ය බව හේරික්ස්බ් සෙර් සභාවේ අංක 9847 6666 ට දන්වන්නෙයැයි ඉදිරිපි කිරින්න. ඔවුන් ඔබට උපකාරකරාටි. සඳුදා - කුසුරාදා අතර දිනවනා උදේ 8.30 සිට සවස 5.00 දක්වා ඔවුන් විවෘතය.</p>	
SPANISH	<p>Si usted no entiende esta carta, sírvase llamar al 131 450 para pedir ayuda a un intérprete gratuito. Pídale que contacte al Hornsby Shire Council llamando al 9847 6666 y el Municipio tratará de ayudarlo. El horario de oficina del Municipio es de 8.30 am a 5.00 pm, de lunes a viernes</p>	
TAMIL	<p>இக்கடிதத்தை விளங்கிக்கொள்ள முடியவில்லால், தயவுசெய்து ஓர் இலவச மொழிபெயர்ப்பாளருக்கு 131 450 தொ. இலக்கத்தில் பேசவும். 9847 6666 என்ற இலக்கத்தில் Hornsby Shire சபையைத் தொடர்புகொள்ளுமாறு கேட்கவும். சபை உங்களுக்கு உதவ முயற்சிகளும், சபை அலுவலக நேரம்: திங்கள் முதல் வெள்ளி வரை மு.ப 8.30 – பி.ப 5.00</p>	
TAGALOG	<p>Kung hindi ninyo maunawaan ang sulat na ito, tumawag sa 131 450 para sa libreng Interpreter. Ipatawag ninyo sila sa Hornsby Shire Council sa 9847 6666 upang kayo ay mahulungan ng council. Ang oras ng tanggapan ng conseho ay 8:30 ng umaga hanggang 5:00 ng hapon, mula Lunes hanggang Biyernes.</p>	



## Environmental issues associated with horticulture properties

### 1. Waste management

Waste produced by a horticultural operation mainly consists of vegetation clippings, bad stock, packaging materials, irrigation piping and empty chemical and pesticide containers. All of these wastes should be recycled or reused appropriately. Vegetation clippings could be mulched back into the soil as they provide nutrients during decomposition which are good for the trees. Diseased crops and weeds may be burnt and are exempted under the *Protection of the Environment (Control of Burning) Regulation 2000*.

### 2. Spill management

Spill prevention is necessary for those horticultural operations that use chemicals and pesticides. Spill control and clean up materials should be able to be easily accessed by staff at all times.

### 3. Water quality management

Stormwater practices should be managed according to the site. Operations with dams should direct stormwater into the dam which can then be used to irrigate the property. Vegetation filtering and buffer zones slow the flow of water into the dam allowing sediment to drop out. Sites which direct all stormwater and runoff to the stormwater drains should provide filter and buffer zones between the site and the entry point to the drain. Drip irrigation could be investigated as an alternative as it uses less water than spray irrigation and it creates less runoff to stormwater.



*Residents learning about drainage line management and weed identification*

### 4. Air quality management

Pesticide spraying has the potential to pollute the stormwater system and other areas of land. Spraying should only be conducted when appropriate weather conditions prevail. Operators should consider their neighbours when spraying. They should ensure that there are adequate buffer zones between properties so that the drift spray does not affect adjacent properties.

### 5. Noise management

Potential mechanical noise sources from horticultural operations include tractors, cool rooms, sorting machines and trucks/vehicles. Noise sources should be identified and should not cause an offence to neighbours.

Gas powered scare guns are also used by orchardists to keep birds and bats out of their orchards. The guns are fed by gas cylinders and triggered by timing devices to generate the explosions. Noise from these guns can be a problem in rural and semi-rural areas where residents live in close proximity to operations that use scare guns.

### Further information

Horticulture Australia – [www.horticulture.com.au](http://www.horticulture.com.au)

NSW Department of Primary Industries – [www.agric.nsw.gov.au](http://www.agric.nsw.gov.au)

NSW Agriculture (2002) *Sustainable Horticulture AGFACT 2002*, NSW Department of Agriculture, Mid North Coast.

# Poultry farms

## Appendix 3

### Environmental issues associated with poultry farms

#### 1. Waste management

**Shed scrapings** – Litter may be completely removed from the sheds at the end of each batch of chickens (single batch cleanout), or after multiple batches (multiple batch cleanout), with the cake removed at the end of each batch. Removal of used litter from the farm as soon as possible reduces the risk of odour problems.

**Dead birds** – Many alternatives and new technologies exist for dead bird storage and disposal. Options include garbage bins with frequent pickup and disposal, composting, freezing with disposal to a rendering plant or approved landfill or any other means approved by the relevant authorities. The most appropriate option will be site specific. However systems that minimise odour, pollution and access by vermin are ideal.

#### 2. Spill management

Chemicals may be used on the farm for the operation of farm equipment (e.g. petrol, diesel or gas), plant and animal pest control (e.g. rodent poison, herbicides), and for cleaning and disinfecting the sheds. All farm chemicals are to be stored and handled in a manner that does not pollute waters (see sec 120 of the *Protection of the Environment Operations Act 1997*). They should be applied and disposed of in accordance with the appropriate Material Safety Data Sheets, labelled instructions and the Pesticides Act and Regulations.

#### 3. Air quality management

The major air quality management issues associated with poultry farms include:

- dust from litter removal;
- feathers escaping from the sheds;
- dust from site operations such as feed deliveries and transport movement;

- excessive odour; and
- inadequate buffer zones between rural and residential developments.

The primary sources of odour risk on a poultry farm are:

- litter in shed;
- used litter – removal, stockpiling or spreading;
- dead birds – disposal; and
- general bird odour.

Odour can also be generated from surrounding properties (e.g. a neighbouring poultry farm, market garden or cattle producer spreading manure or poultry litter on their land as fertiliser) and can be mistakenly perceived to be originating from the farm. Cumulative odour can also be an issue. This can occur when a number of urban and rural odour sources pool together to generate excessive odours.

Litter moisture is the primary contributor to odour generation. Some moisture is essential to avoid dust problems and to promote beneficial organisms, however optimal moisture is generally around 15 to 30% (this can be related to the type of litter material used).

#### 4. Noise management

Noise pollution from a poultry farm is mainly associated with the operation of vehicles, shed ventilation systems and other farm equipment. Bird pickup at night can also generate noise pollution for surrounding residents.

#### Further information

- Department of Natural Resources and Environment (2001) *Victorian Code for Broiler Farms*, Department of Natural Resources and Environment, Victoria
- Local Government Poultry Taskforce
- NSW Agriculture (2002) *Draft NSW Meat Chicken Farming Guidelines*, NSW Agriculture, Camden.

Breweries or distilleries that produce alcohol or alcoholic products and that have an intended production capacity of more than 30 tonnes per day or 10,000 tonnes per year are required to be licensed by the Department of Environment & Conservation (NSW) under Schedule 1 of the *Protection of the Environment Operations Act 1997*.

## Environmental issues associated with a winery

### 1. Waste management

Solid and semi-solid by-products or wastes derived from the winemaking process (eg stalks, marc, lees, diatomaceous earth and other filter media) should be temporarily stored in a manner that minimises the emissions of odours before use or disposal. Other waste management issues likely to arise at a winery include glass, pruning from grape vines, diseased stock, filter pads, wash and process waters, and irrigation piping. Vine stalks and any leaves which are mechanically removed before grape crushing should be stockpiled and composted in areas away from neighbouring properties. They should be reapplied onto vineyards within 12 months.

### 2. Spill management

Chemicals may be used at the winery for the operation of farm equipment (e.g. petrol or gas), plant and animal pest control (e.g. rodent poison, herbicides), and for cleaning and disinfecting during the fermentation process. All farm chemicals are to be stored, handled, applied and disposed of in accordance with the labelled instructions and the Pesticides Act and Regulations.

Spillages associated with wine and grape juices can also be of concern should they discharge onto land or into any watercourse. Appropriate spill control material and infrastructure is required to contain spills.

### 3. Air quality

Odours associated with wastewater collection, treatment and disposal onto land and odours associated with marc and spent filter-media storage and disposal is the major air quality impacts associated with a winery. Fermentation of the grape juice may also produce a host of atmospheric emissions that may be of a greater concern during the periods of high activity during vintage.

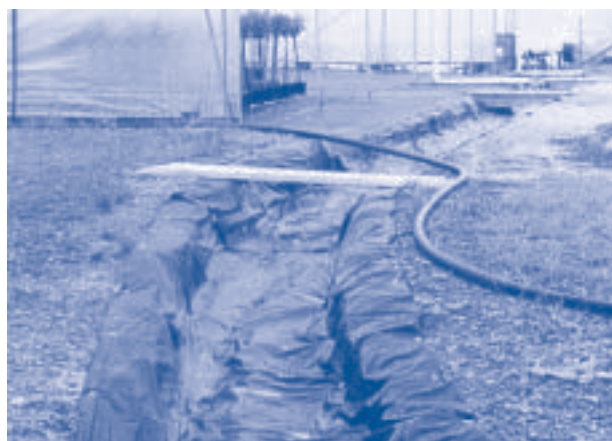
Spray drift is also a very important issue in terms of minimising the wastage of chemicals, managing the health concerns of neighbours and reducing liability.

### 4. Noise management

Noise associated with pumps, compressors, refrigeration, crushing facilities and other plant equipment are the major contributors of noise pollution. However, noise from vehicle movements may also be of a concern particularly during the vintage period.

### 5. Water quality management

One of the major problems in the operation of wineries is the disposal of wastewater on soil, vegetation and water resources. Clearly water is a critical issue – there is not enough of it and quality continues to be a problem. The correct disposal of wastewater is required to reduce any pollution from occurring and should also include the build up



*Drainage line improvement measures to reduce erosion along drainage lines.*

of sludge. Sludge removal from wastewater sumps, tanks, storage or treatment basins or lagoons should be undertaken at times when the odours are likely to rapidly disperse (i.e. during daylight hours outside the autumn and winter months). If winery wastewater sludge is to be treated as a 'waste' then it must be transported by licensed waste transporters.

Stormwater runoff that is contaminated from grape handling and crushing, marc storage and composting activities must be addressed and the additional hydraulic volumes taken into consideration.

## Further information:

- NSW Wine Industry Association – general information, [info@nswwine.org.au](mailto:info@nswwine.org.au)
- Department of Primary Industries/Department of Sustainability and Environment, *Environmental Best Practice – Viticulture*, [on-line] Available 20 May 2003 from: [www.nre.vic.gov.au/web/root/domino/cm\\_da/nrecfa.nsf/0/9d5d0aff7c8d9661ca256bcc00042b34?Open Document](http://www.nre.vic.gov.au/web/root/domino/cm_da/nrecfa.nsf/0/9d5d0aff7c8d9661ca256bcc00042b34?Open Document)
- Helen Wilson (ed) (1995) *Drip irrigation: a grape growers guide* (2nd edition), NSW Agriculture.
- SA Environment Protection Authority and South Australian Wine and Brandy Industry Association Inc (1998) *Environmental Management Code of Practice for Wineries and Distilleries in South Australia – Consultation Draft*, South Australian Wine and Brandy Industry Association Inc, Adelaide.

## Environmental issues associated with horse properties

### 1. Waste management

Bedding and manure from stabled horses needs to be removed on a daily basis. A stabled horse may produce up to 15kg of manure each day. This material may be disposed of in a number of ways including stockpiling and composting, put back onto the paddock or bagged and sold. Similar disposal methods are also advantageous for manure collected from paddocks.

The disposal of veterinary waste also needs to be considered should the animal require veterinary assistance throughout its life. Disposal of veterinary products is to be carried out in accordance with the labelled instructions.



*Rural residents attending a 2-day Property Planning Course and learning about mapping.*

### 2. Spill management

Chemicals may be used on the property for the operation of equipment (e.g. petrol or gas), plant and animal pest control (e.g. rodent poison, drench, herbicides). All farm chemicals are to be stored,

handled, applied and disposed of in accordance with the labelled instructions and the Pesticides Act and Regulations.

### 3. Air quality

Air quality issues associated with a horse property generally relate to dust and odour from manure. Odour may be generated from the stock piling of horse manure and should be composted or farrowed back onto the property on a regular basis to reduce any odour emissions. Dust may also be generated from traffic movement on the property or by horses moving over disturbed and exposed soils.

### 4. Noise management

Noise from machinery and general horse practices (i.e. whinnying) are the two most likely sources of noise on a horse property.

### 5. Water quality management

Wastewater generated from wash bays and stables will generally carry nutrients from manure, hay bedding and dirt and should not be allowed to flow directly into a waterbody. Rather, it should be guided into a dam or sediment trap or dispersed across a paddock.

Erosion hazards tend to occur in areas that horses frequent such as fence lines, shady areas and high use areas such as gates. Yards generally tend to be situated on bare ground and so particular attention needs to be paid to runoff from these areas. The property layout should account for these hazards and include sediment control structures where necessary. It may be feasible to include swales within a horse paddock to redistribute runoff.

Clean runoff should be diverted around stables and sheds and away from manure piles in particular. These should also be kept away from steep slopes and drainage lines. A well-grassed paddock can act as a filter/buffer between sediment sources and





*Rehabilitated drainage line to reduce the flow of stormwater and minimise erosion.*

bushland and waterbodies by dispersing runoff across the paddock. However, if the paddock is not well kept, it will exacerbate the problem and lead to greater erosion.

Paddock grasses escaping the property along watercourses or invading adjacent bushland indicate that nutrients are leaving the site and that nutrient management is a problem. Horse paddocks are often treated with fertiliser or manure to maintain their nutrients. However, this should only be done after soil testing establishes a need.

Horses should also be kept from directly accessing dams. They can damage the dam and will leave boggy areas that are unsafe for horses and become a major source of sediment during rainfall events.

## Further information

- Department of Environment and Conservation (NSW) (2004), *Horse Properties on the Rural Urban Fringe, Best Practice Environmental Guide for Keeping Horses*.
- Stubbs, A. K. (1998a) *Sustainable Land Use for Depastured Horses – Guidelines for small properties. A report for the Rural Industries Research and Development Corporation*. Rural Industries Research and Development Corporation, Barton, ACT. Publication No 98/11
- Stubbs, A. (1998b) *Healthy Land, Healthy Horses. A Guidebook for Small Properties*. Rural Industries Research and Development Corporation (RIRDC) Barton ACT Publication Number 98/137.
- NSW Department of Primary Industries – Agfact sheet

## Environmental issues associated with hobby farms

### 1. Waste management

Waste produced by a hobby farm will vary depending on the type of the operation. Possible sources of waste may include vegetation clippings, packaging materials, empty chemical and pesticide containers, and animal waste. All wastes should be appropriately stored and recycled or reused if possible. Vegetation clippings could be mulched back into the soil as they provide nutrients during decomposition.

### 2. Spill management

Chemicals may be used on the property for the operation of equipment (e.g. petrol or gas), plant or animal pest control (e.g. pesticides or Round Up). All farm chemicals are to be stored, handled, applied and disposed of in accordance with the labelled instructions and the Pesticides Act and Regulations.

### 3. Air quality

Depending on the nature of the hobby farm air quality issues may range from the keeping of animals to composting of vegetation.

### 4. Noise management

Potential noise sources from hobby farm operations may include tractors, cool rooms, trucks/vehicles and recreational motorbike use. Noise sources from the hobby farm should be identified and controlled so as not to cause an offence to neighbouring properties.



*Wetland constructed to manage stormwater runoff.*

### 5. Water quality management

Stormwater should be managed according to the size and operation of the site. Hobby farms with dams should direct stormwater into the dam, which can then be used to irrigate the property or for stock watering. Vegetation filtering and buffer zones may also be used to slow the flow of water across the property and allow for any nutrients or sediment to drop out. Sites, that direct all stormwater and runoff to the stormwater drains or drainage channels, should provide filtering and buffers zones before the water leaves the property.

### Further information

- NSW Agriculture, *Farming in a Small Way*, NSW Department of Primary Industries.



### Environmental issues associated with a nursery

#### 1. Waste management

Waste produced by a nursery operation may consist of plastic pots, green waste, bad stock, packaging materials, irrigation piping, empty chemical and pesticide containers, and paper/cardboard waste. All of these wastes should be recycled or reused where possible. Green waste if diseased and pest free could be mulched back into the soil as it provides nutrients during decomposition. Diseased crops and weeds may be burnt and are exempted under the Protection of the Environment (Control of Burning) Regulation 2000. If plastic pots are reused onsite they are to be thoroughly sterilised before reuse.

#### 2. Spill management

Chemicals and fuels such as pesticides, herbicides and diesel are frequently used by nursery operations. All farm chemicals are to be banded and stored, handled, applied and disposed of in accordance with the labelled instructions, the Pesticides Act and Regulations and WorkCover requirements.

#### 3. Air quality

Air quality issues associated with a nursery operation may include odours, over spray, burning off, dust, and green house gasses.

#### 4. Noise management

Noise from a nursery operation has the potential to create a nuisance in densely populated areas on the urban rural fringe where sites are small and structures are built close to the property boundaries. The presence of noise from activities and equipment



is an inevitable fact of nursery operations and traffic to and from the nursery by labourers, customers, materials and produce providers can also contribute to an increase in noise levels. Other potential mechanical noise sources from nursery operations include: tractors, cool rooms, pumps and trucks/ vehicles. Noise sources should be identified and should be controlled so as not to cause an offence to neighbouring properties.

## 5. Water quality management

Water quality issues that may be experienced on a nursery property include erosion along drainage lines, overwatering, tail water from irrigation which is rich in nutrients, sediment control and farm chemicals. To overcome these issues control measures such as bunding of chemicals, sediment traps, hay bales, wetlands, detention ponds, recycled water, and vegetated dish or spoon drains may be used. Routine monitoring of water quality will also allow for nutrient identification and adjustments can be made for the appropriate amount of fertiliser application.

## Reference:

- NSW Environment Protection Authority, 2001, *Environmental Management for the Nursery Industry – a cooperative Education Project*, Environment Protection Authority, Sydney.
- Hornsby Shire Council, 1999, *Environmental Management Project for Nurseries, Landscape Suppliers and Potting Media Producers*, Hornsby Shire Council, Hornsby.
- Nursery Industry Association of Australia, (1997) *Nursery Industry Water Management Best Practice Guidelines*, Nursery Industry Association of Australia.
- Nursery and Garden Industry Australia, *The Nursery Papers*, (available online [www.ngia.com.au](http://www.ngia.com.au))

# Notes

---

Environmental management

---

on the

*Urban fringe*

*Urban fringe*